



DASNY

PROJECT MANUAL

BROOME DDSO



**Office for People With
Developmental Disabilities**

**ROAD – PARKING LOT EXPANSION
PROJECT**

515 BROADWAY
ALBANY, NY 12207-2964
518.257.3000

28 LIBERTY STREET
55TH FLOOR
NEW YORK, NY 10005-1400
212.273.5000
800.992.2788

6047 TRANSIT ROAD
SUITE 103
EAST AMHERST, NY 14051
716.566.4400

3495 WINTON PLACE
BUILDING C, SUITE 1
ROCHESTER, NY 14623
585.450.8400

**BROOME DEVELOPMENTAL CENTER
249 GLENWOOD ROAD, BINGHAMTON, NY**

**DASNY PROJECT NUMBER: 3543609999
CR 40 Phase II Sitework**

DATE: September 20, 2024

BID DOCUMENTS

VOLUME 1 OF 1

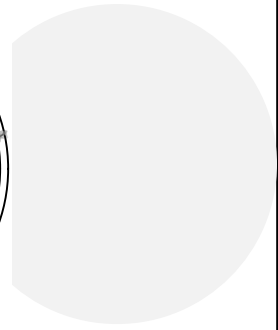
C&S Engineers, Inc.

499 Col. Eileen Collins Blvd
Syracuse, New York 13212
315-455-2000

Seals & Signatures

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NOTICE TO BIDDERS
DORMITORY AUTHORITY OF THE STATE OF NEW YORK (“DASNY”)
Office for People with Developmental Disabilities
Broome DDSO
Parking Lot Expansion Project
CR40 General Construction
Project Number 3543609999

Sealed bids for the above Work located at **Broome DDSO, 249 Glenwood Road, Binghamton, New York 13905** will be received by DASNY at its office located at 515 Broadway, Albany, NY 12207. Each bid must be identified, on the outside of the envelope, with the name and address of the bidder and designated a bid for the Project titled above. When a sealed bid is placed inside another delivery jacket, the bid delivery jacket must be clearly marked on the outside **“BID ENCLOSED”** and **“ATTENTION: CONSTRUCTION CONTRACTS – MOLLY GRUSS.”** DASNY will not be responsible for receipt of bids which do not comply with these instructions.

All individuals who plan to attend pre-bid meetings or bid openings in person will be required to present government-issued picture identification to building security officials and obtain a visitors pass prior to attending the bid opening.

Individuals and entities submitting bids in person or by private delivery services should allow sufficient time for processing through building security to assure that bids are received prior to the deadline for submitting bids.

All bid openings will be made available for viewing live via Zoom at www.zoom.us. To enter the meeting, select “Join a Meeting” then enter Meeting Id 550 592 4065, Password 730959. Individuals are strongly encouraged to utilize this public viewing option as an alternative to in person attendance at bid openings.

Only those bids in the hands of DASNY, available to be read at **2:00 PM** local time on **October 24, 2024** will be considered. Bids shall be publicly opened and read aloud. Bid results can be viewed at DASNY’s website; <http://www.dasny.org>.

In accordance with State Finance Law § 139-j and § 139-k, this solicitation includes and imposes certain restrictions on communications between DASNY personnel and a prospective bidder during the procurement process. Designated staff for this solicitation is: **Kevin Perazzelli, Project Manager, 515 Broadway, Albany, New York 12207, 518-801-3394, KPerazze@DASNY.org** (the Owner’s Representative) **and DASNY at ccontracts@dasny.org**. Contacts made to other DASNY personnel regarding this procurement may disqualify the prospective bidder and affect future procurements with governmental entities in the State of New York. For more information pursuant to this law, refer to DASNY’s website; <http://www.dasny.org> or the OGS website; <http://www.ogs.state.ny.us>.

A Pre-Bid Meeting will be held on **Tuesday, October 8, 2024, at 11:00 AM at 249 Glenwood Road, Binghamton, New York 13905. Contact Philip Mauro at 518-704-7148.** All prospective bidders are strongly encouraged to attend.

A complete set of Contract Documents may be viewed and/or purchased online from Camelot Print and Copy Centers. Only those Contract Documents obtained in this manner will enable a prospective bidder to be identified as an official plan holder of record. DASNY takes no responsibility for the completeness of Contract Documents obtained from other sources. Contract Documents obtained from other sources may not be accurate or may not contain addenda that may have been issued. In addition, prospective bidders are advised that the Contract Documents for this Project contain new “GENERAL CONDITIONS for

CONSTRUCTION” dated June 17, 2021, that contain significant revisions from those documents previously contained in DASNY’s Contract Documents. Prospective bidders are further advised to review applicable sections of these General Conditions for any potential impact on their bid price prior to submittal of the bid. The plan holders list and a list of interested subcontractors and material suppliers may be viewed at DASNY’s website: <http://www.dasny.org>. For Bid Opportunities and other DASNY related news, follow us on Twitter @NYS_DASNY and Facebook <https://www.facebook.com/pages/DASNY-Dormitor-Authority-of-the-State-of-New-York/307274192739368>.

To view the Contract Documents online, click the following link: www.camelotplanroom.com or type it into your web browser. Then click on the Public Jobs link on the left side of the page. If you would like to purchase the Contract Documents and become a registered planholder click the link "Register for an account" and follow the steps to create a free account (if you have not previously set one up). Once you have a Login and Password, log in to the planroom. To order a **DIGITAL DOWNLOAD** of the Contract Documents and be placed on the bidder's list, add the Contract Document(s) to your cart and proceed to the checkout. All major credit cards are accepted online. A purchase of a digital download is **required** to become a registered planholder. Printed sets of the Contract Documents are also available to planholders for an additional cost and may be ordered through the online planroom or by mailing a check. The purchase of the digital downloads and printed sets are non-refundable and non-returnable. Please contact Camelot's Bid Department at (518) 435-9696 or email them at camelotbids@teamcamelot.com for more information.

If you prefer to order a CD of the Contract Documents in place of the digital download, please send your non-refundable check/money order in the amount of \$15.00 payable to Camelot Print and Copy Centers to: Camelot Print & Copy Centers, Attn: Bid Department, 630 Columbia St. Ext., Latham, NY 12110

If you are ordering by mail, please include ALL the following on a transmittal with your check or money order:

- Company Name**
- Address (physical address only)**
- Contact Person**
- Phone Number**
- Email (for communication including addendum notifications)**
- Company Fax number**
- FedEx or UPS shipping account number**

If you do not have a shipping account, please send an additional non-refundable check for \$20 payable to Camelot Print and Copy Centers. Please include your Federal ID number, telephone and fax numbers on your Bank Check or Postal Money Order. NOTE: Bid due date is subject to change if Contract Documents are not available when requested, therefore, please call to confirm the availability of Contract Documents. If the Contract Documents will not be picked up by the purchaser, the purchaser will need to provide an account number for shipping of the documents or send an additional non-refundable check for \$20 payable to Camelot Print and Copy Centers.

For the convenience of prospective bidders, subcontractors and material suppliers, the Contract Documents will be displayed at the following locations:

Northern New York Builders Exchange
22074 Fabco Road
Watertown, NY 13601
Contact: Jill Hunter
Email: info@nnybe.com
Ph: (315) 788-1330

Fax: (315) 788-9357

Mohawk Valley Builders Exchange
10 Main Street
Suite 202
Whitesboro, NY 13492
Email: mvbe@centralny.twcb.com
Ph: (315) 736-2441
Fax: (315) 736-2445

Syracuse Builders Exchange
6563 Ridings Road
Syracuse, NY 13206
Contact: M. Salisbury
Email: msalisbury@syrabex.com
Ph: (315) 437-9936
Fax: (315) 437-5044

Dodge Data & Analytics
3315 Central Avenue
Hot Springs, AR 71901
Contact: William Fleming
william.fleming@construction.com
Ph: (518) 269-7735

Best East
15 Belden Street
Binghamton, NY 13903
Contact: Cheryl Plahanski
Email: cheryl@bxstier.com
Ph: (607) 771-7000
Fax: (607) 771-7001

Eastern Contractors Association
6 Airline Drive
Albany, NY 12205
Contact: Judy Ploof
Email: judyp@ecainc.org
Ph: (518) 869-0961
Fax: (518) 869-2378

ConstructConnect
Attn: Production
30 Technology Parkway S. Suite 500
Norcross, GA 30092
Contact: Vera Bifulco
Email: projects@cmdgroup.com
Ph: (800) 364-2059

Robert J. Rodriguez, President & CEO
September 27, 2024

May 1, 2018

BIDDING REQUIREMENTS for CONSTRUCTION

INFORMATION FOR BIDDERS

Section 1.0 - Pre-Bid Meeting, Bid Opening & Pre-Award Meeting

Tuesday, October 8, 2024, at 11:00 AM at 249 Glenwood Road, Binghamton, New York 13905. Contact Philip Mauro at 518-704-7148. Prospective bidders are strongly encouraged to attend. The purpose is to observe actual Site conditions and review Contract Document requirements.

All individuals who plan to attend pre-bid meetings or bid openings in person will be required to present government-issued picture identification to building security officials and obtain a visitors pass prior to attending the bid opening.

Individuals and entities submitting bids in person or by private delivery services should allow sufficient time for processing through building security to assure that bids are received prior to the deadline for submitting bids.

All bid openings will be made available for viewing live via Zoom at www.zoom.us. To enter the meeting, select "Join a Meeting" then enter Meeting Id 550 592 4065, Password 730959. Individuals are strongly encouraged to utilize this public viewing option as an alternative to in person attendance at bid openings.

A mandatory pre-award meeting for the apparent low bidder will be held on Thursday, November 7th, 2024 at 11:00 AM. Contact Kevin Perazzelli at 518-801-3394 (KPerazze@DASNY.org).

Section 2.0 - Examination of the Contract Documents and Site

- A. Prospective bidders shall examine the Contract Documents carefully and, before bidding, shall make a written request to the Owner and Design Professional, for an interpretation or correction of any ambiguity, inconsistency, or error therein which should be discovered by a reasonably prudent bidder. Every request for such interpretation must be received at least ten (10) days prior to the date fixed for the opening of the bid. Such interpretation or correction, as well as additional Contract provisions the Owner shall decide to include, shall be issued in writing by the Owner as an Addendum, which shall be provided to each prospective bidder recorded as having received a copy of the Contract Documents from the Owner and shall be available at the places where the Contract Documents are available for inspection by prospective bidders. Such Addendum shall become a part of the Contract Documents and shall be binding on prospective bidders whether or not the bidder receives or acknowledges the actual notice of such Addendum. Requirements of the Contract Documents shall apply to Addenda.
- B. Only interpretations, corrections or additional Contract provisions issued in writing by the Owner as Addenda shall be binding. No officer, agent or employee of the Owner or the Design Professional is authorized to explain or to interpret the Contract Documents by any other method and any such explanation or interpretation, if given, must not be relied upon by the bidder.
- C. At the time of the opening of bids, each bidder shall be presumed to have inspected the Site and to have read and to be familiar with the Contract Documents. The failure or omission of any bidder to receive or to examine any Contract Document shall in no way relieve any bidder from any obligation in respect to the bid of such bidder.

BIDDING REQUIREMENTS for CONSTRUCTION

INFORMATION FOR BIDDERS

Section 3.0 - Qualifications of Bidder

- A. The Owner shall investigate the responsibility of any bidder to determine the ability of any bidder to perform the Work. Bidders shall provide the Owner with all information requested to conduct such investigation. The Owner reserves the right to reject any bid if the requested items are not submitted as required or if the bidder fails to demonstrate to the Owner's satisfaction that the bidder is responsible or qualified to carry out the obligations of the Contract or to complete the Work as contemplated.
- B. The apparent low bidder must submit the required pre-award submittal package outlined below to the Procurement Unit within five (5) working days after receipt of the Pre-Award letter notification.
1. **Workforce and Work Plan** – Provide a detailed written Work Plan which shall demonstrate the contractor's understanding of overall project scope and shall include, but not be limited, to the following:
 - a. Sequential listing of major project activities required to successfully complete the Work of the contract.
 - b. Include Critical Schedule Milestones and/or preliminary project schedule.
 - i. Include phasing of the Work, if required.
 - c. Include listing of long lead items.
 - d. Include a preliminary list of site-/project-specific safety hazards, and how such hazards will be considered in performance of the Work.
 - e. Résumés for Contractor's proposed supervisory staff, including qualifications for specialized expertise or any certification(s) required to perform the Work.
 - f. Names of all proposed sub-contractors and vendors and a listing of the related trade of work and value.
 - g. Any special coordination requirements with other trades.
 - h. Any special storage and staging requirements for construction materials.
 - i. Detailed bid breakdown showing costs per associated CSI divisions and/or required trade costs.
 - j. The bidder or its principals shall have a minimum of five (5) years' experience in similar work and shall provide to the Owner on the Minimum Qualifications Form a list of five (5) contracts of similar size, scope, and complexity to this Project completed or substantially completed within the last ten (10) years. Projects with complex technical specification sections may require additional experience in terms of both time as well as number of similarly completed projects.
- C. Experience will be viewed from both the perspective of completed projects of comparable size, scope and complexity, as well as the experience and qualifications of the bidder's personnel. The determination of relevant project experience in terms of size, scope and complexity will be at the sole and exclusive discretion of the Owner.
- D. Bidders shall, within the time specified by the Owner, submit to the Owner the names of the Subcontractors the Bidder proposes to use on the project. The Owner reserves the right to disapprove the use of any proposed Subcontractor. In such an event the Bidder shall submit the name of another Subcontractor in like manner within the time specified by the Owner. The Bidder shall have and will make no claim for compensation if the Owner disapproves any proposed Subcontractor. The Owner reserves the right to reject any bid if the names of proposed Subcontractors, or additional subcontract information, are not submitted as required.

BIDDING REQUIREMENTS for CONSTRUCTION

INFORMATION FOR BIDDERS

- E. In the event the bidder fails to establish to the satisfaction of the Owner, as set forth in (A) thru (C) above, that the bidder is both responsible and meets the qualification requirements of the solicitation, the Owner reserves the right, in its sole discretion, to reject any bid.

Section 4.0 - Executive Order No. 170.1 – Uniform Guidelines for Responsibility Determinations

The criteria contained in Executive Order No. 170.1 dated June 23, 1993 (9 NYCRR § 4.170, Context and Analysis, Historical Note 32) will also be applied in the bid review process. In the event of any conflict between the criteria in Executive Order No. 170.1 and the criteria in the Contract Documents, the stricter criteria shall apply.

Section 5.0 - Executive Order No. 125 – NYS Vendor Responsibility Questionnaire

- A. For any contract \$10,000 or more, the New York State Vendor Responsibility Questionnaire For-Profit Construction (CCA-2) Certification Page shall be submitted by the apparent low bidder to the Owner within five (5) business days of receipt of the Pre-Award Notification Letter. Executive Order No. 125 dated May 22, 1989 is found at 9 NYCRR §4.125.
- B. The apparent low bidder shall submit a New York State Vendor Responsibility Questionnaire For-Profit Construction (CCA-2) Certification Page to the Owner for each proposed subcontractor where the subcontract for the Work of the Project exceeds two million dollars and for any other subcontractor upon request of the Owner. **The Owner recommends that any subcontractors file the required Vendor Responsibility Questionnaire online via the New York State VendRep System (the “System”) prior to submission of the bid.**
- C. **The Owner recommends that vendors file the required Vendor Responsibility Questionnaire online via the New York State VendRep System (the “System”) prior to submission of the bid.** To enroll in and use the System, see the System Instructions at http://www.osc.state.ny.us/vendrep/vendor_index.htm or go directly to the VendRep System online at <https://portal.osc.state.ny.us>. Vendors must provide their New York State Vendor Identification Number when enrolling. To request assignment of a Vendor ID or for System assistance, contact the Office of the State Comptroller’s (“OSC”) Help Desk at 866-370-4672 or 518- 408-4672 or by email at ciohelpdesk@osc.state.ny.us. Vendors opting to complete and submit a paper questionnaire can obtain the appropriate questionnaire from the System website www.osc.state.ny.us/vendrep or may contact the Owner (DASNY) or OSC’s Help Desk for a copy of the paper form.

Section 6.0 – 2005 Procurement Lobbying Law

- A. Pursuant to provisions of the General Conditions, Article 18 – 2005 Procurement Lobbying Law, for any contract \$15,000 or more, the 2005 PROCUREMENT LOBBYING LAW – CERTIFICATION as part of the Omnibus Procurement Certification form is to be submitted with the bid.
- B. All bidders, domestic and foreign, must be in compliance with New York State business registration requirements. Contact the NYS Department of State regarding compliance.

Section 7.0 - Approval of Subcontractors/Subcontract Limits

- A. Pursuant to provisions of the General Conditions, Article 6 - Subcontracts, bidders shall within the time specified by the Owner, submit to the Owner the names of the subcontractors which the bidder proposes to use on the Contract. The Owner reserves the right to reject any bid if the names of proposed subcontractors, or additional subcontractor information, are not submitted as required.

BIDDING REQUIREMENTS for CONSTRUCTION

INFORMATION FOR BIDDERS

- B. The Contractor shall not make Subcontracts totaling a dollar amount which is more than the percentage of the total Contract price indicated below. The Owner may modify these requirements at any time, including after receipt of bids, when determined to be in the best interest of the Owner.

Subcontract limits are as follows:

Contract Trade	%	Contract Trade	%
CR40 General Construction	50%		

Section 8.0 - Opportunity Programs Requirements

- A. Pursuant to provisions of the General Conditions, Article 20 – Opportunity Programs and Article 21 – Service-Disabled Veteran Owned Businesses, the Contractor agrees, in addition to any other nondiscrimination provision of the Contract and at no additional cost to the Owner, to fully comply and cooperate with the Owner in the implementation of NYS Executive Law ARTICLE 15-A, PARTICIPATION BY MINORITY GROUP MEMBERS AND WOMEN WITH RESPECT TO STATE CONTRACTS and Article 17-B, SERVICE DISABLED VETERAN OWNED BUSINESSES. These requirements will include: equal employment opportunities for minority group members and women (EEO), plus opportunities for minority and women-owned business enterprises (M/WBE). The Contractor’s demonstration of good faith efforts shall also be a part of these requirements.
- B. The Owner has adopted a goal oriented approach to ensure employment of EEO & M/WBE at a level commensurate with their capability and availability. The Owner has determined that the goals for EEO & M/WBE participation in the Work of the Contract are follows:

Percent of Total Work Force (EEO):

Minority & Women Workforce Goal (for all trades) **10%**

Percent of Total Contract (M/WBE):

Minority Business Enterprise Goal **3%**

Women's Business Enterprise Goal **3%**

Service Disabled Veteran Owned Businesses **3%**

The goals stated above, for each contract, do not apply to bids of less than \$100,000.

- C. The apparent low bidder shall submit within the specified time frames, the following:
1. A Statewide Utilization Management Plan (“SUMP”) via the NYS Contract System. Hard copies of the plan will no longer be accepted and no payment can be made without an approved plan. Please login to the NYS Contract System at <https://ny.newnycontracts.com> to view and complete the SUMP. If you are a new user, click on Account Lookup” to identify your account by company name. You can then **"Request New User"** to be set up so that you can access the account. **It is important that the staff member who is responsible for reporting payment information for your firm is also set up as a user in the System.** Email notifications regarding the approval/denial of the plan will come from the New York State Contract System so please ensure the address is listed in your contacts to avoid messages being deleted as spam.

BIDDING REQUIREMENTS for CONSTRUCTION

INFORMATION FOR BIDDERS

2. The Statewide Utilization Management Plan (“SUMP”) shall be submitted within ten business (10) days after being notified of the Notice to Proceed (NTP). The SUMP shall list all proposed Subcontractors and material suppliers the bidder intends to use to perform the Work of the Contract including an identification of the NYS Empire State Development Corporation (“ESD”) certified M/WBE Subcontractors and material suppliers the bidder intends to use to achieve the participation goals established above. The **Scope Verification Form** shall accompany the SUMP for each M/WBE Subcontractor listed on the SUMP. Only NYS ESD certified M/WBEs submitted in the SUMP will qualify for M/WBE credit. The Owner or ESD can assist the bidder in locating NYS certified M/WBEs.
 3. The Owner will review the SUMP and issue the bidder a notice of acceptance or deficiency within twenty (20) days of its receipt. A notice of deficiency shall include (i) the name of any M/WBE which is not acceptable for the purpose of complying with the M/WBE participation goals and the reasons why it is not acceptable; (ii) elements of the Work of the Contract, which the Owner has determined can be reasonably structured by the bidder to increase the likelihood of participation in the Contract by M/WBEs; and (iii) other information which the Owner determines to be relevant to the SUMP.
 4. The bidder shall respond to the notice of deficiency within seven (7) business days of receipt by submitting to the Owner a written remedy in response to the notice of deficiency. If the written remedy that is submitted is not timely or is found by the Owner to be inadequate, the Owner shall notify the bidder and direct the bidder to submit, within five (5) business days, a Request for Waiver. Failure to file the waiver form in a timely manner may be grounds for disqualification of the bid.
 5. The bidder who has written documentation of good faith efforts to obtain commitments from M/WBE subcontractors and material suppliers prior to submitting the SUMP may submit a request for waiver form at the same time it submits the SUMP. If a Request for Waiver is submitted with the SUMP and is not accepted by the Owner, the provisions of clauses (i) and (ii) of paragraph 3 regarding the notice of deficiency and written remedy will apply. In this case, the bidder may submit a second Request for Waiver as directed by the Owner.
 6. If the bidder does not submit a SUMP, remedy deficiencies in the SUMP, submit a Request for Waiver, or if the Owner determines that the SUMP does not indicate that the M/WBE participation goals will be met and/or that the bidder has failed to document good faith efforts, the Owner shall withhold payment to the contractor.
 7. The bidder shall attempt to utilize, in good faith, any M/WBE identified within the SUMP, at least to the extent indicated in the SUMP.
 8. The bidder shall submit to the Owner, within thirty (30) days from the acceptance of the SUMP, copies of the executed Subcontract and the accepted schedule of values for each M/WBE Subcontract and the fully executed purchase order agreement to each M/WBE supplier identified on the accepted Utilization Plan. Each executed agreement shall include reference to the Contract.
 9. Six Month Workforce Utilization Schedule.
- D. Failure to provide the above plans and the aforementioned information shall result in the Owner withholding payment to the contractor. To become more familiar with the Opportunity Program Requirements, a Pre-Bid Meeting Outline is available on the Dormitory Authority’s website.

BIDDING REQUIREMENTS for CONSTRUCTION

INFORMATION FOR BIDDERS

- E. DASNY's Capital Management Plan assists New York State's MWBE, SDVOB, and smaller general contractors become prime contractors on DASNY construction projects statewide by accessing affordable capital and to qualify for bonding. To learn more about this program please click on the link for additional information <https://cayemittegroup.com/cayemitte-capital-management/> or contact David Cayemitte, President/CEO of the Cayemitte Group at (609) 521-4201 or Michael M. Clay Senior Director of OPG|Co-Leader of Procurement at mclay@dasny.org.

Section 9.0 - Preparation of Bids

- A. Bids must be submitted on the Form of Bid supplied by the Owner in the bidder's full legal name or the bidder's full legal name plus a registered assumed name. Bids shall be enclosed in a sealed envelope, addressed to the Owner, and marked with the name and address of the bidder, and the name of the Project. All blank spaces for bid prices must be filled in, using both words and figures, words to take precedence over figures. Conditional bids shall not be accepted. Bids shall not contain any recapitulation of the Work to be done. No oral, facsimile transmittal, electronic or telephonic bids or modifications of bids shall be considered. Bids shall contain an original signature of the bidder in the space provided on the Form of Bid.
- B. Bids that are illegible or that contain omissions, alterations, additions, or items not called for in the bidding documents may be rejected as not responsive. Any bid which modifies, limits, or restricts all or any part of such bid, other than as expressly provided for in the Contract Documents, may be rejected as not responsive.
- C. The Owner may reject any bid not prepared and submitted in accordance with the provisions of the Contract Documents.
- D. Any bid may be withdrawn prior to the scheduled time for the opening of bids or authorized postponement thereof and any bid received after such time and date shall not be considered.
- E. No bidder may withdraw a bid within sixty (60) days after the actual date of the opening thereof. After sixty (60) days, the Owner, at its sole discretion, may request that the bidder extend the expiration of the bid, as often as deemed necessary, to a date set by the Owner. After sixty (60) days, if the Contract has not been awarded and the Owner elects to not request an extension, the Owner may consider the bid as expired and return the bid security.
- F. No action or proceeding concerning in any way any bid for the Contract or the Contract shall be brought against the Owner in any location other than Albany County unless the Owner specifically consents, in writing, to a change of venue.

Section 10.0 - Bid Security

- A. In the amount of five percent (5%) of the base bid amount, each bid must be accompanied by a certified check of the bidder made payable to the Dormitory Authority or by a bid bond prepared on the form of bid bond included in the Contract Documents, duly executed by the bidder as principal, and the surety thereon. Bidder failure to provide bid security as prescribed, may result in rejection of the bid. Bid bonds submitted as bid security shall contain an original signature of both the bidder and the surety providing the bid bond in the space provided on the Form of Bid Bond. The surety shall be authorized to do business in the State of New York by the New York State Department of Financial Services, rated at least A- by A. M. Best and Company, or meet such other requirements as are acceptable to the Owner in its sole and exclusive discretion.

BIDDING REQUIREMENTS for CONSTRUCTION

INFORMATION FOR BIDDERS

- B. Any certified checks submitted as bid security shall be returned to all except the three (3) lowest bidders after the opening of bids, and the remaining checks shall be returned to the three (3) lowest bidders after the Owner and the accepted bidder have executed the Agreement, or if no Agreement has been executed within sixty (60) days after the date of the opening of bids, upon demand of the bidder at any time thereafter so long as such bidder has not been notified of the acceptance of such bid.
- C. Bid Bonds of all but the bidder executing the Agreement shall be destroyed by the Owner either 1) after the Owner and the accepted bidder have executed the Agreement, or 2) if no Agreement has been executed, sixty (60) days after the date of the opening of bids.

Section 11.0 – Compliance With Laws

The bidder shall sign and submit with the bid the COMPLIANCE WITH LAWS – CERTIFICATION as part of the Omnibus Procurement Certification form included in the Contract Documents.

Section 12.0 - Bid Designation

- A. Each bid shall bear on the outside of the envelope the name of the bidder, its address, its telephone number and designated as bid for the following:

**Office for People with Developmental Disabilities
Broome DDSO
Parking Lot Expansion Project
CR40 General Construction
Project Number 3543609999**

- B. Bids submitted via; mail, express service, or messenger service shall indicate on the exterior of the envelope the words "**BID ENCLOSED.**" **Attention: "Construction Contracts – Molly Gruss."**

Section 13.0 - Award of Contract

- A. Award of the Contract shall be made to the bidder submitting the lowest bid, if:
 - 1. In the opinion of the Owner, the bid is responsive to the bid solicitation, and such bidder is qualified to perform the Work involved, is responsible and reliable.
 - 2. The bidder submits required documents as described under Section 17.0 – Forms and Documents.
 - 3. On contracts of One Million Dollars (\$1,000,000) or more, the bidder furnishes within five days after low bidder notification, documentation of efforts to encourage the participation of New York State enterprises as suppliers and subcontractors. Also, in a post-award compliance report, furnish documentation of efforts to provide notification to New York State residents of employment opportunities, through the New York State Job Service Division, or provide such notification in a manner consistent with existing collective bargaining contracts or agreements.
- B. Alternates, if stated in the Form of Bid, shall be chosen at the sole and exclusive discretion of the Owner when awarding the Contract. Alternates shall be listed in their order of priority, and acceptance shall be made in the same order, except that the Owner, at its sole and exclusive discretion, may by-pass any

BIDDING REQUIREMENTS for CONSTRUCTION

INFORMATION FOR BIDDERS

Maintenance or Warranty Service Alternates. The lowest bid will then be determined by adding, to the bidder's total base bid, all Alternates chosen by the Owner.

- C. The Owner reserves the sole and exclusive right to reject any bid or all bids, to waive any informalities or irregularities or omissions in any bid received or to afford any bidder an opportunity to remedy any informality or irregularity.
- D. The execution of the Agreement shall not be construed as a guarantee by the Owner that the plant, equipment, and the general scheme of proposed operations of a bidder is either adequate or suitable for the satisfactory performance of the Work or that other data supplied by a bidder is accurate.

Section 14.0 - Required Bonds and Insurance

- A. Simultaneously with the delivery of the signed Agreement, the successful bidder shall furnish to the Owner and maintain, at its own cost and expense a Performance Bond in an amount at least equal to one hundred percent (100%) of the Contract amount as security for faithful performance of the Contract and also a Payment Bond in an amount at least equal to one hundred percent (100%) of the Contract amount for the payment of all persons performing labor under the Contract or furnishing materials for the Contract. The Performance Bond and Payment Bond surety must be authorized to do business in New York State by the NYS Department of Financial Services, rated at least A- by A.M. Best and Company or meet such other requirements as are acceptable to the Owner in its sole and exclusive discretion.
- B. Attorneys-in-fact who sign said bonds on behalf of a surety must affix to each bond a certified and effectively dated copy of their power of appointment.
- C. Bidders should carefully review the Contract Documents for the requirements for insurance and bonds for this Contract including, but not limited to, Articles 6, 14 and 15 of the General Conditions and the sample certificate of insurance provided by the Owner in the bidding documents. The deductible for General Conditions Section 15.06 A is \$50,000 for SUNY projects and \$250,000 for all other projects.

Section 15.0 - Damages for Failure to Enter into Agreement

The successful bidder, upon failure or refusal to sign and deliver the Agreement and bonds required within fourteen (14) days after such bidder has received the Letter of Intent, shall forfeit to the Owner as damages for such failure or refusal, the bid security, or the sum of the difference between the total bid of the successful bidder and the total bid of the bidder submitting the next lowest bid, whichever sum shall be higher.

Section 16.0 - Substantial Completion and Liquidated Damages

- A. All the Work of the Contract Documents shall commence at the time to be specified in the Notice to Proceed and the Contractor shall achieve Substantial Completion no later than **November 28, 2025**.
- B. Liquidated Damages may be assessed for each and every calendar day that the Work of the Contract is not complete, after the above stated date for Substantial Completion of the Work, at the rate of **One Thousand and 00/100 Dollars (\$1,000.00)**.

Section 17.0 – Forms and Documents

BIDDING REQUIREMENTS for CONSTRUCTION

INFORMATION FOR BIDDERS

Each bidder shall complete and submit to the Owner, pursuant to provisions stated in the Information for Bidders, the following forms and documents:

Bidding Requirements: each bidder shall submit the following at time of bid:

- Form of Bid
- Omnibus Procurement Certification
 - 2005 Procurement Lobbying Law - Certification
 - Code of Business Ethics - Certification
 - Compliance with Laws - Certification
- W-9 Form
- Bid Security

F. Contract Forms for Construction: the successful bidder shall submit the following for execution of the Contract. The Owner reserves the right to reject any bid if any or all of the required documents are not submitted within the timeframes identified below, or if the bidder fails to demonstrate to the Owner's satisfaction that the bidder is responsible or qualified to carry out the obligations of the Contract or to complete the Work as contemplated:

- Workforce and Work Plan submittal package as per Section 3.0 – Qualifications of Bidders Letter B.1 – within five (5) days of pre-award letter notification
- Required Insurance Forms – within five (5) days of pre-award letter notification
- New York State Vendor Responsibility Questionnaire For-Profit Construction (CCA-2) - within five (5) days of pre-award letter notification
- New York State Vendor Responsibility Questionnaire For-Profit Construction (CCA-2) for each subcontractor named with the bid for the HVAC, plumbing and electric work within five (5) days of pre-award letter notification (if applicable)
- Signed Project Labor Agreement - within five (5) days of pre-award letter notification (if applicable)
- Agreement - within fourteen (14) days after Letter of Intent
- Payment Bond – with Contractor's signed Agreement
- Performance Bond – with Contractor's signed Agreement

Section 18.0 – Project Labor Agreement – Not Required

Section 19.0 – Electronic Data Transfer

Notwithstanding Section 2.02 (B) – Electronic Data Transfer, payment to the Contractor shall only be rendered electronically, unless payment by paper check is authorized in writing by the Owner. The Contractor further acknowledges and agrees that the Owner may withhold payments, if the Contractor has not complied with the Owner's requirements relating to the electronic payment program in effect at such time, unless payment by paper check is authorized in writing by the Owner.

BIDDING REQUIREMENTS for CONSTRUCTION

FORM OF BID

TO THE DORMITORY AUTHORITY OF THE STATE OF NEW YORK
(Owner)

For _____
(Title of Project)

Pursuant to and in compliance with the Owner's Notice to Bidders dated _____ and the Contract Documents relating hereto, the undersigned hereby offers to Provide all plant, labor, materials, supplies, equipment, Allowances, if applicable and other facilities and things necessary or proper for or incidental to the Work of:

(Contract Type or Trade)

as required by, and in strict accordance with applicable Contract Documents, including written changes thereto, and addenda issued by the Owner and sent to the undersigned or delivered to the bidder or available to the bidder prior to the opening of bids, whether received by the undersigned or not, for the total sum of:

(Written Dollar Amount)

(\$ _____)
(Figure Dollar Amount)

The above Written Dollar Amount is the undersigned's bid and no other number on any page submitted with this page 1 of the FORM OF BID can be the undersigned's bid under any circumstance.

The bid may be withdrawn at any time prior to the scheduled time for the opening of bids or any authorized postponement thereof.

If the Letter of Intent is sent or delivered to the undersigned within sixty (60) days after the date of opening of the bids, or any time thereafter before the bid is withdrawn, the undersigned shall, within fourteen (14) days after the date of such Letter of Intent, execute and deliver the Agreement in the form included in the Contract Documents.

The undersigned hereby designates as the undersigned's office to which the Letter of Intent may be sent or delivered:

Name: _____

Firm's Legal Name: _____

Street Address: _____

PO Box #: _____

City, State, Zip Code: _____

Phone Number: _____

Email Address: _____

BIDDING REQUIREMENTS for CONSTRUCTION

FORM OF BID

Date of Bid Submission: _____

Firm's Legal Name: _____

Street Address: _____

PO Box #: _____

City, State, Zip Code: _____

By: _____
(Signature of Officer)

Title: _____

Officer Name: _____
(Print)

Phone Number: _____

Fax Number: _____

E-Mail Address: _____

Taxpayer ID or Social Security Number: _____

Submit Bid to:
DASNY
Attn: CONTRACTS UNIT – BID ENCLOSED
515 Broadway
Albany, New York 12207

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CERTIFICATION

I, the undersigned, an authorized signatory of _____, (the “**Firm**”) hereby represent that they are knowledgeable about the Firm’s business and operations and certify to the Dormitory Authority of the State of New York (“**DASNY**”) under penalty of perjury that the answers provided herein are true to the best of their knowledge and belief as follows with respect to certain actions taken and to be taken in connection with the Firm’s submission of a [bid/proposal] and the execution of any resulting contract (the “**Contract**”) in response to DASNY’s [notice to bidders/request for proposal] for Project # [] as follows:

A. Non-Collusive Bidding Certification

1. The prices in the [bid/proposal], have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other [bidder/proposer] or with any competitor;
2. Unless otherwise required by law, the prices which have been quoted in the [bid/proposal] have not been knowingly disclosed by the [bidder/proposer] and will not knowingly be disclosed by the [bidder/proposer] prior to opening, directly or indirectly, to any other [bidder/proposer] or to any competitor; and
3. No attempt has been made or will be made by the [bidder/proposer] to induce any other person, partnership, or corporation to submit or not to submit a [bid/proposal] for the purpose of restricting competition.

B. Non-Segregated Facilities

The Firm does not, nor shall not, maintain or provide for the employees of such Firm any segregated facilities at any establishments, and that the Firm does not, nor shall not, permit the employees of such Firm to perform the services of such employees at any location under the control of such Firm where segregated facilities are maintained. The Firm agrees that a breach of this certification is a violation of the nondiscrimination clauses of the Contract.

C. Non-discrimination in Employment in Northern Ireland

The Firm stipulates that it, and any individual or legal entity in which the Firm holds a ten percent (10%) or greater ownership interest, and any such entity that holds such an interest in the Firm, either:

1. Has no business operations in Northern Ireland; or
2. Shall take all lawful steps in good faith to conduct any business operations it has or in which it has such an interest in Northern Ireland in accordance with the MacBride Fair Employment Principles as set forth in Chapter 807 of the Laws of 1992 and shall permit any independent monitoring of its compliance with said Principles.

D. Federal Equal Employment Opportunity Act

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The Firm is compliant with the Federal Equal Employment Opportunity Act of 1972 (P.L. 92-261), as amended.

E. Commitment to Opportunity Programs

The Firm acknowledges and agrees to be bound in accordance with NYS Executive Law Article 15-A, and in conformance with regulations promulgated by the Division of Minority and Women's Business Development of the NYS Department of Economic Development. A list of NYS certified M/WBEs may be obtained from the ESDC directory of certified businesses located at www.nylovesmwbe.ny.gov.

F. Commitment to Service-Disabled Veteran-Owned Business

The Firm acknowledges and agrees to be bound in accordance with NYS Executive Law Article 17-B, and in conformance with applicable regulations. A list of NYS certified SDVOB may be obtained from the NYS Office of General Services Division of Services-Disabled Veterans' Business Development located at <https://ogs.ny.gov/veterans>.

G. Transfer of Offset Credits

The Firm acknowledges notice that DASNY may assign or otherwise transfer offset credits created by the Contract to third parties located in New York State.

H. 2005 Procurement Lobbying Law

1. The Firm understands and has to date and agrees hereinafter to comply with DASNY's procedures relative to permissible contacts for this procurement as required by State Finance Law § 139-j (3) and § 139-k (6) (b);
2. No "governmental entity," as defined in State Finance Law § 139-j and § 139-k has made a finding in the last four years that the Firm was not responsible;
 - a. If yes, please note the governmental entity, the date of the finding and the basis of the finding regarding each finding of non-responsibility. Attach additional pages, if necessary.

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3. No “governmental entity” as defined in State Finance Law § 139-j and § 139-k has terminated or withheld a procurement contract with the Firm due to the intentional provision of false or incomplete information required by such laws and/or the failure to comply with the requirements of State Finance Law § 139-k(3) relating to permissible contacts.

- a. If yes, please note the governmental entity, the date of the termination or withholding of contract and the basis of termination or withholding of contract. Attach additional pages, if necessary.

I. Code of Business Ethics

The Firm acknowledges notice of and has read DASNY’s Code of Business Ethics attached as **Exhibit A** hereto and acknowledges that the Firm’s failure to comply shall justify termination of the Contract by DASNY and may result in the rejection of the Firm’s [bid/proposal] for future work with DASNY.

J. Iran Divestment

That to the best of its knowledge and belief, the Firm and each person and each person signing on behalf of any other party, that each person is not on the list created pursuant to paragraph (b) of subdivision 3 of section 165-a of the State Finance Law.

K. Russia Divestment – EO 16

Executive Order No. 16 provides that “all Affected State Entities are directed to refrain from entering into any new contract or renewing any existing contract with an entity conducting business operations in Russia.” The Executive Order remains in effect while sanctions imposed by the federal government are in effect. As defined in Executive Order No. 16, an “entity conducting business operations in Russia” means an institution or company, wherever located, conducting any commercial activity in Russia or transacting business with the Russian Government or with commercial entities headquartered in Russia or with their principal place of business in Russia in the form of contracting, sales, purchasing, investment, or any business partnership.

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That to the best of its knowledge and belief, the Firm and each person and each person signing on behalf of any other party, represents as follows:

_____ 1. No, Vendor does not conduct business operations in Russia within the meaning of Executive Order No. 16.

_____ 2.a. Yes, Vendor conducts business operations in Russia within the meaning of Executive Order No. 16 but has taken steps to wind down business operations in Russia or is in the process of winding down business operations in Russia. (Please provide a detailed description of the wind down process and a schedule for completion.)

_____ 2.b. Yes, Vendor conducts business operations in Russia within the meaning of Executive Order No. 16 but only to the extent necessary to provide vital health and safety services within Russia or to comply with federal law, regulations, executive orders, or directives. (Please provide a detailed description of the services being provided or the relevant laws, regulations, etc.)

_____ 3. Yes, Vendor conducts business operations in Russia within the meaning of Executive

L. Certification

The Firm acknowledges that intentional submission of false or misleading information may constitute a felony under Penal Law Section 210.40 or a misdemeanor under Penal Law Section 210.35 or Section 210.45, and may also be punishable by a fine of up to \$10,000 or imprisonment of up to five years under 18 U.S.C. Section 1001 and hereby represents that all information contained here provided to DASNY is complete, true and accurate.

By: _____

Name: _____

Title: _____

Date: _____

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Exhibit A: Dormitory Authority of the State of New York - Code of Business Ethics

A. Ethics Programs

1. DASNY is a public-benefit corporation of the State of New York and expects the highest degree of ethical business conduct by its employees and the many contractors, consultants and vendors with whom it interacts on behalf of its clients, bondholders and the people of the State of New York. DASNY, by mandate of its Board of Directors, administers a comprehensive corporate integrity program to ensure that, as public officers, DASNY employees at all levels perform their official duties consistent with the requirements of the *New York State Public Officers Law*; other applicable laws, rules, and regulations; and policies of DASNY.
2. DASNY encourages and supports a fair, open and honest business relationship with its contractors, consultants and vendors based on quality, service and cost. Moreover, DASNY believes that a “level playing field” in the marketplace can only be achieved through adherence to ethical business practices by all participants involved in the process.
3. To promote a working relationship with DASNY based on ethical business practices, contractors, consultants and vendors are expected to:
 - a. furnish all goods, materials and services to DASNY as contractually required and specified;
 - b. submit complete and accurate reports to DASNY and its representatives as required;
 - c. not seek, solicit, demand or accept any information, verbal or written, from DASNY or its representatives that provides an unfair advantage over a competitor;
 - d. not engage in any activity or course of conduct that restricts open and fair competition on Authority-related projects and transactions;
 - e. not engage in any course of conduct with DASNY employees or representatives that constitutes a conflict of interest or creates the appearance of a conflict of interest;
 - f. not offer any unlawful gifts or gratuities to DASNY employees or representatives, or engage in bribery or other criminal activity; and
 - g. report to DASNY any activity by an DASNY employee or contractor, consultant or vendor of DASNY that is inconsistent with DASNY’s *Code of Business Ethics*.
4. DASNY encourages its contractors, consultants and vendors to advance and support ethical business conduct and practices among their respective directors, officers and employees, preferably through the adoption of corporate ethics awareness training programs and written codes of conduct. In addition to considering technical competence and financial stability, DASNY will consider the *corporate integrity* of all contractors, consultants and vendors prior to the awarding of contracts or issuing of purchase orders.

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B. Conduct of DASNY Employees

DASNY employees are expected to conduct business with contractors, consultants and vendors in a fair, consistent and professional manner. DASNY's Code of Business Ethics and Employee Conduct entitled *Serving Responsibly*, and other DASNY policies and procedures, guide the manner in which DASNY employees are required to interact with contractors, consultants and vendors. Additionally, the New York State Public Officers Law sets forth legal parameters within which DASNY employees must perform their official duties with respect to, among other things, conflicts of interest and the acceptance of gifts.

Limits on Gifts to DASNY Employees

1. Pursuant to Section 73(5) of the Public Officers Law, no person shall offer any gift having more than a nominal value to an DASNY employee under circumstances in which it:
 - a. could be reasonably inferred the gift was intended to influence the employee in the performance of his or her official duties;, or
 - b. could reasonably be expected to influence the employee in the performance of his or her official duties;, or
 - c. was intended as a reward for any official action on the part of the employee.
2. A gift is anything more than nominal in value, in any form, given to an DASNY employee. Gifts include, but are not limited to, money, service, loan, travel, lodging, meals, refreshments, entertainment, discount, forbearance or promise. Any firm or its agents, either doing business or seeking to do business with DASNY (contractors, consultants, vendors, etc.), is prohibited from directly or indirectly offering or giving any gifts, even gifts of nominal value, to DASNY employees as such gifts are deemed to be *per se* improper.
3. As is stated in the *Prohibited Interests* section of the Construction and Consultant Contract documents, violations of these gift provisions may be grounds for immediate contract termination and/or referral for civil action or criminal prosecution.

C. Employing Relatives of DASNY Employees

Although contractors, consultants and vendors may employ relatives of DASNY employees, DASNY must be made aware of such circumstances as soon as possible, preferably in writing, to ensure a conflict of interest situation does not arise. DASNY reserves the right to request that contractors, consultants and vendors modify the work assignment of an DASNY employee's relative where a conflict of interest, or the appearance thereof, is deemed to exist. Please be advised that DASNY employees are required to disclose information regarding the hiring of relatives by contractors, consultants and vendors and recuse themselves from matters that may present a conflict of interest. For purposes of this document, the term "relatives" refers to spouses, domestic partners, parents, children, sisters, brothers, sisters-in-law, brothers-in-law, parents-in-law, sons/daughters-in-law, stepparents, stepchildren, aunts, uncles, nieces, nephews, first cousins, grandparents by blood relationship or by marriage, or persons residing in the same household.

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Hiring Former DASNY Employees

Contractors, consultants and vendors may hire former DASNY employees. However, as a general rule, former employees of DASNY may neither appear nor practice before DASNY, nor receive compensation for services rendered on a matter before DASNY, for a period of *two years* following their separation from DASNY service. In addition, former DASNY employees are subject to a “*lifetime bar*” from appearing before DASNY or receiving compensation for services regarding any transaction in which they personally participated or which was under their active consideration during their tenure with DASNY. Violations will be referred to the New York State Commission on Public Integrity for appropriate action.

Request for Taxpayer Identification Number and Certification

**Give Form to the
 requester. Do not
 send to the IRS.**

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.					
	2 Business name/disregarded entity name, if different from above					
	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.		4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):			
	<input type="checkbox"/> Individual/sole proprietor or single-member LLC	<input type="checkbox"/> C Corporation	<input type="checkbox"/> S Corporation	<input type="checkbox"/> Partnership	<input type="checkbox"/> Trust/estate	Exempt payee code (if any) _____
	<input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____					
	Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.					
	<input type="checkbox"/> Other (see instructions) ▶ _____					Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>
5 Address (number, street, and apt. or suite no.) See instructions.			Requester's name and address (optional)			
6 City, state, and ZIP code						
7 List account number(s) here (optional)						

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number											
				-			-				
or											
Employer identification number											
				-							

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ▶	Date ▶
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting*, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, *Withholding of Tax on Nonresident Aliens and Foreign Entities*).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the instructions for Part II for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships*, earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.SSA.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/Businesses and clicking on Employer Identification Number (EIN) under Starting a Business. Go to www.irs.gov/Forms to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to www.irs.gov/OrderForms to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.

You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.

You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions.

You must sign the certification. You may cross out item 2 of the certification.

4. Other payments.

You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions.

You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor ²
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee ¹
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
6. Sole proprietorship or disregarded entity owned by an individual	The owner ³
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity ⁴
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships*, earlier.

*Note: The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes.

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at spam@uce.gov or report them at www.ftc.gov/complaint. You can contact the FTC at www.ftc.gov/idtheft or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see www.IdentityTheft.gov and Pub. 5027.

Visit www.irs.gov/IdentityTheft to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

BIDDING REQUIREMENTS for CONSTRUCTION

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we:

_____ as Principal,
(Legal Title of the Bidder)

and _____ as Surety,
(Legal Title of the Surety)

are hereby held and firmly bound unto the Dormitory Authority - State of New York in the penal sum of:

_____,
(Amount)

or in the full and just sum of the difference between the total bid of the Principal and the total bid of the bidder submitting the next lowest bid, whichever sum shall be higher, for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

Signed this ____ day of _____ 20__.

Whereas the Principal has submitted to the Dormitory Authority - State of New York a certain bid, made a part hereof, to enter into a Contract in writing for the:

(Title of Project)

NOW, THEREFORE the conditions of this obligation is such that::

A. This obligation shall be void:

1. If said bid shall be rejected or in the alternate.
2. If said bid shall be accepted and the Principal shall execute and deliver the Agreement in the form attached hereto (properly completed; in accordance with said bid) and shall furnish bonds for the faithful performance of said Contract by the Principal, and for the payment of persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the Contract created by the acceptance of said bid.

Otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

B. The penal sum of this Bond is in addition to any other Bond furnished by the Contractor and in no way shall be impaired or affected by any other Bond.

C. The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and said Surety's Bond in no way shall be impaired or affected by any extension of time within which the Owner may accept such bid; and said Surety does hereby waive notice of any such extension.

BIDDING REQUIREMENTS for CONSTRUCTION

BID BOND

IN WITNESS WHEREOF:

the parties hereto have executed this Bond the day and year first above written.

IN THE PRESENCE OF:

(Principal)

(Surety)

(Signature)

(Signature)

(Title)

(Title)

(Address)

(Address)

(City, State, Zip Code)

(City, State, Zip Code)

(Phone Number & FAX Number)

(Phone Number & FAX Number)

(Email Address)

(Email Address)

BIDDING REQUIREMENTS for CONSTRUCTION

BID BOND

ACKNOWLEDGEMENT OF CONTRACTOR EXECUTING BID BOND
IF A CORPORATION

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20 ___, before me personally came _____,
to me known, who, being by me duly sworn, did depose and say that he/she resides at:

(street, city, state, zip code)

that he/she is the _____ of _____,
the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name
thereto by authority of the Board of Directors of said corporation.

Notary Public

ACKNOWLEDGEMENT OF CONTRACTOR EXECUTING BID BOND
IF A PARTNERSHIP, LIMITED LIABILITY COMPANY OR INDIVIDUAL

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20 ___, before me, the undersigned, a Notary Public in and for said
State, personally appeared _____, personally known or proved to me
on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within
instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by
his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s)
acted, executed the instrument.

Notary Public

ACKNOWLEDGEMENT OF SURETY

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20 ___, before me personally came _____,
to me known, who, being by me duly sworn, did depose and say that he/she resides at:

(street, city, state, zip code)

that he/she is the _____ of _____,
the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name
thereto by authority of the Board of Directors of said corporation.

Notary Public



SCOPE VERIFICATION FORM

At the discretion of DASNY's Opportunity Programs Group, Scope Verification Forms completed & signed may be requested for any MBE/WBE/SDVOB subcontractor/supplier listed on the approved Utilization Plan.

FAILURE TO PROVIDE THE REQUIRED DOCUMENTATION MAY RESULT IN THE DELAY OR DENIAL OF THE INITIAL PROGRESS PAYMENT OR FUTURE PROGRESS PAYMENTS

PRIME/PROJECT INFORMATION (Please complete all fields)

Prime Contractor: _____ Project No: _____
 Contract/Job Order No: _____ Project Name/Facility: _____

SUBCONTRACTOR (Please complete all fields) & if applicable (select one) MBE WBE SDVOB

Company Name: _____ Contact Person: _____
 Phone No: _____ Email: _____

MBE/WBE/SDVOB SUBCONTRACTOR/SUPPLIER (select one) MBE WBE SDVOB

Company Name: _____ Contract Person: _____
 Phone No: _____ Email: _____

MBE/WBE/SDVOB SUBCONTRACTOR/SUPPLIER SCOPE OF SERVICES (please complete all fields)

Identify the specific scope of services that will be performed by the proposed MBE/WBE/SDVOB subcontractor/supplier listed above.

NAICS Code <small>(6 Digit Number)</small>	Description of Work	Contract Amount
		\$
		\$
		\$
Total		\$

The Contractor shall notify and obtain written approval from DASNY for any changes needed to this Scope Verification Form.

The Contractor and MBE/WBE/SDVOB subcontractor/supplier shall certify that the MBE/WBE/SDVOB subcontractor/supplier will perform the above scope of work and will not subcontract its work, in whole or in part, to a Non-MBE/WBE/SDVOB entity.

MBE/WBE/SDVOB SUBCONTRACTOR/SUPPLIER

 Principal or Officer (print name and title) Principal or Officer Signature Date

PRIME/SUBCONTRACTOR

 Principal or Officer (print name and title) Principal or Officer Signature Date



FOR DEMO PURPOSES ONLY CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Your Agent or Broker	CONTACT NAME:	
	PHONE (A/C. No. Ext):	FAX (A/C. No):
INSURED Your Name	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A:	Your Insurance Company
	INSURER B:	Your Insurance Company
	INSURER C:	Your Insurance Company
	INSURER D:	Your Insurance Company
	INSURER E:	Your Insurance Company
	INSURER F:	Your Insurance Company

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY			XYZ-123	MM/DD/YY	MM/DD/YY	EACH OCCURRENCE \$ 2,000,000	
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	Y					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000	
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$ 5,000	
	<input checked="" type="checkbox"/> Include Independent Contractors						PERSONAL & ADV INJURY \$ 2,000,000	
GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	GENERAL AGGREGATE \$ 4,000,000							
B	AUTOMOBILE LIABILITY			ABC-345	MM/DD/YY	MM/DD/YY	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000	
	<input checked="" type="checkbox"/> ANY AUTO	Y					BODILY INJURY (Per person) \$	
	<input checked="" type="checkbox"/> ALL OWNED AUTOS						<input checked="" type="checkbox"/> SCHEDULED AUTOS	BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS						<input checked="" type="checkbox"/> NON-OWNED AUTOS	PROPERTY DAMAGE (Per accident) \$
<input checked="" type="checkbox"/>				\$				
C	<input checked="" type="checkbox"/> UMBRELLA LIAB	Y		LLL-555	MM/DD/YY	MM/DD/YY	EACH OCCURRENCE \$ As Needed	
	<input checked="" type="checkbox"/> EXCESS LIAB						AGGREGATE \$	
	<input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$						\$	
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			WCB-678	MM/DD/YY	MM/DD/YY	<input type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y / N	N / A				E.L. EACH ACCIDENT \$	
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 1,000,000	
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000	
E				MCK-777	MM/DD/YY	MM/DD/YY		

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

DASNY Contract No: Project No. 354360 Project Description & Facility: Broome DDSO Parking Lot Expansion Project
The following are Additional Insureds as respect to this project: Office for People with Developmental Disabilities (OPWDD)- 44 Holland Avenue, 5th Floor, Albany, NY 12208; State of New York- One Commerce Plaza, 99 Washington Ave, Albany, NY 12231-0001; Dormitory Authority of the State of New York - 515 Broadway, Albany, NY 12207

Proof of 30 Days Notice of Cancellation in favor of the Dormitory Authority of the State of New York is required for all insurance policies.

CERTIFICATE HOLDER

CANCELLATION

Dormitory Authority- State of New York 515 Broadway Albany, New York 12207	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE Your Agent/Broker Representative

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
DASNY and all others as per the written contract	"All locations" or specific project name and address
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location And Description Of Completed Operations
DASNY and all others as per the written contract	"All locations" or specific project name and address
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".



FACILITY

PROJECT NAME

CONTRACTOR

DA#

ALBANY (HEADQUARTERS): 515 Broadway, Albany, NY 12207 | 518-257-3000

BUFFALO: 539 Franklin Street, Buffalo, NY 14202 | 716-566-4400

NEW YORK CITY: 28 Liberty Street, Fl 55, New York, NY 10005 | 212-273-5000

ROCHESTER: 3495 Winton Place, Building C, Suite 1, Rochester, NY 14623 | 585-461-8400

CONTRACT FORMS FOR CONSTRUCTION
AGREEMENT

This Agreement made as of the _____, by and between the DORMITORY AUTHORITY, a public benefit corporation and public authority established by the Public Authorities Law of the State of New York, hereinafter referred to as the Owner and; _____, a business corporation organized and existing under the laws of the State of New York, hereinafter referred to as the Contractor, for the Work at _____.

WITNESSETH: That the Owner and the Contractor for the consideration named agree as follows:

- A. The Contractor shall Provide the Work of every kind or nature whatsoever required and all other things necessary to complete in a proper and workmanlike manner the _____, Contract number _____, Project number _____, in strict accordance with the Contract Documents (defined in the General Conditions), of which a listing of technical Specifications and Drawings is attached hereto and in strict accordance with Addenda issued by the Owner pursuant to the Contract, and Provide all other obligations imposed on such Contractor by the Contract.
- B. The Contractor agrees to Provide the Work of the Contract Documents necessary or proper for, or incidental to the Work of the Contract, for the total sum of _____ Dollars (_____), which sum shall be deemed to be in full consideration for the performance by the Contractor of all the duties and obligations of such Contractor under the Contract.
- C. The Contractor shall commence the Work of the Contract Documents at the time to be specified in the Notice to Proceed, issued by the Owner, and shall achieve Substantial Completion no later than the _____. The Contractor shall pay to the Owner as liquidated damages the sum of () for each and every day that the Contractor fails to achieve Substantial Completion of the Work.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

* Contractor Signature	Date	Dormitory Authority Signature	Date
Title		Title	

*If a corporation, signer must be President, Vice-President or other authorized officer.
If a Limited Liability Company (LLC), signer must be a member or manager.
If a Limited Liability Partnership (LLP), signer must be a partner.
If a Limited Partnership, signer must be an authorized partner.
If a general partnership, signer must be a partner.
If a sole proprietorship, signer must be the owner.

CONTRACT FORMS FOR CONSTRUCTION
AGREEMENT

ACKNOWLEDGEMENT OF DORMITORY AUTHORITY OFFICER EXECUTING AGREEMENT

STATE OF _____

COUNTY OF _____

On the _____ day of _____ in the year 2022, before me personally came Louis R. Cirelli, Jr., D.B.A., P.E., CMQ/OE to me known, who, being by me duly sworn, did depose and say that he resides at Schenectady, New York, that he is the Director, Procurement of Dormitory Authority, the corporation described in and which executed the above instrument; and that he signed his name thereto by order of the Board of Directors of said corporation.

Notary Public

ACKNOWLEDGEMENT OF CONTRACTOR EXECUTING AGREEMENT
IF A CORPORATION

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20___, before me personally came _____, to me known, who, being by me duly sworn, did depose and say that he/she resides at:

(street, city, state, zip code)

that he/she is the _____ of _____, the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name thereto by authority of the Board of Directors of said corporation.

Notary Public

ACKNOWLEDGEMENT OF CONTRACTOR EXECUTING AGREEMENT
IF A PARTNERSHIP, LIMITED LIABILITY COMPANY OR INDIVIDUAL

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20___, before me, the undersigned, a Notary Public in and for said State, personally appeared _____, personally known or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public

CONTRACT FORMS FOR CONSTRUCTION
AGREEMENT

Iran Divestment Certification

1. By signing this certification and by signing this Contract, each person and each person signing on behalf of any other party certifies, and in the case of a joint bid or partnership each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each person is not on the list created pursuant to paragraph (b) of subdivision 3 of section 165-a of the State Finance Law.
2. Contract means the contract between the Dormitory Authority of the State of New York (“DASNY”) and _____ (“Contractor”) for the _____ Project, DASNY Project Number _____.
3. This certification is part of the Contract and is subscribed by and affirmed by the person entering into the Contract as true under the penalties of perjury.

Contractor Name

By: _____

Print Name: _____

Title: _____

CONTRACT FORMS FOR CONSTRUCTION
AGREEMENT

SPECIFICATIONS AND DRAWINGS LISTING

Following is a list of technical Specifications and Drawings, which are a part of the Contract Documents placed for bid. Addenda issued by the Owner may not be listed but remain a part of the Contract Documents. In addition to the documents listed below, and Addenda issued by the Owner, the Contract Documents include those documents in the definition of Contract Documents in Article 1 of the General Conditions which are included in the Project manual.

DRAFT

CONTRACT FORMS FOR CONSTRUCTION
AGREEMENT

Extended Warranty Service Maintenance

D. In the event the Form of Bid includes an Alternate for an extended warranty service maintenance agreement, and the Owner's Letter of Intent accepts that Alternate, funds for said Alternate shall be encumbered upon the execution of said agreement. If the extended warranty service maintenance agreement is not signed concurrent with this Contract, the warranty service provider, by execution of this Agreement, agrees that the warranty service provider shall execute the extended warranty service agreement which is included with the Contract Documents for the amounts stated in the accepted Alternate.

List the warranty service provider associated with the bid and the annual cost of the contract.

		<u>Annual Cost</u>
Legal Name of Firm		1 st Year _____
Street Address		2 nd Year _____
City, State, Zip Code		3 rd Year _____
* Warranty Service Provider Signature	Date	4 th Year _____
Title		5 th Year _____

*If a corporation, signer must be President, Vice-President or other authorized officer.
If a Limited Liability Company (LLC), signer must be a member or manager.
If a Limited Liability Partnership (LLP), signer must be a partner.
If a Limited Partnership, signer must be an authorized partner.
If a general partnership, signer must be a partner.
If a sole proprietorship, signer must be the owner.

CONTRACT FORMS FOR CONSTRUCTION
AGREEMENT

ACKNOWLEDGEMENT OF WARRANTY SERVICE PROVIDER
IF A CORPORATION

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20___, before me personally came _____, to me known, who, being by me duly sworn, did depose and say that he/she resides at:

(street, city, state, zip code)

that he/she is the _____ of _____, the corporation described in and which executed the foregoing instrument; and that he/she signed his/her name thereto by authority of the Board of Directors of said corporation.

Notary Public

ACKNOWLEDGEMENT OF WARRANTY SERVICE PROVIDER
IF A PARTNERSHIP, LIMITED LIABILITY COMPANY OR INDIVIDUAL

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20___, before me, the undersigned, a Notary Public in and for said State, personally appeared _____, personally known or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public

CONTRACT FORMS for CONSTRUCTION

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we:

_____ as Principal,
(Legal title of the Contractor)

(Street, City, State, Zip Code)

and _____ as Surety,
(Legal title of the Surety)

(Street, City, State, Zip Code)

are held and firmly bound unto the Dormitory Authority, 515 Broadway, Albany, New York 12207, as Obligee, hereinafter called the Owner, for the use and benefit of the claimants as hereinbelow defined, in the amount of:

_____ Dollars

()

WHEREAS, CONTRACTOR, has by written Agreement dated _____

entered into a Contract with the Owner for:

(Title of Project)

in accordance with the Contract Documents and any changes thereto, which are made a part hereof, and are hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise such obligation shall remain in full force and effect, subject, however, to the following conditions:

- A. A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.
- B. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this Payment Bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.
- C. No suit or action shall be commenced hereunder by any claimant:

CONTRACT FORMS for CONSTRUCTION

PAYMENT BOND

1. Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to the Principal above named, within one hundred twenty (120) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal at any place where the Principal maintains an office or regularly conducts the Principal's business, or at Principal's residence or served on Principal in any manner in which legal process may be served in the State of New York.
2. Except as provided in section 220-g of the New York State Labor Law, after the expiration of one (1) year following the date on which the public improvement has been Completed and Accepted by the Owner; however, if any limitation embodied in this Payment Bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
3. Other than in a New York State court of competent jurisdiction in and for the county in which the Contract, or any part thereof, was to be performed, or in the United States District Court for the district in which the Contract, or any part thereof, was to be performed, and not elsewhere.

D. The penal sum of this Payment Bond is in addition to any other bond furnished by the Contractor and in no way shall be impaired or affected by any other bond.

E. The amount of this Payment Bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.

Signed this _____ day of _____ 20____

IN THE PRESENCE OF:

 (Principal)

 (Signature)

 (Title)

 (Street Address)

 (City, State, Zip Code)

 (Phone Number & FAX Number)

 (Email Address)

 (Surety)

 (Signature)

 (Title)

 (Street Address)

 (City, State, Zip Code)

 (Phone Number & FAX Number)

 (Email Address)

CONTRACT FORMS for CONSTRUCTION

PAYMENT BOND

ACKNOWLEDGEMENT OF CONTRACTOR EXECUTING PAYMENT BOND
IF A CORPORATION

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20___, before me personally came _____,
to me known, who, being by me duly sworn, did depose and say that he/she resides at:

(street, city, state, zip code)

that he/she is the _____ of _____, the
corporation described in and which executed the foregoing instrument; and that he/she signed his/her name thereto by
authority of the Board of Directors of said corporation.

Notary Public

ACKNOWLEDGEMENT OF CONTRACTOR EXECUTING PAYMENT BOND
IF A PARTNERSHIP, LIMITED LIABILITY COMPANY OR INDIVIDUAL

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20___, before me, the undersigned, a Notary Public in and for said
State, personally appeared _____, personally known or proved to me
on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument
and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their
signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed
the instrument.

Notary Public

ACKNOWLEDGEMENT OF SURETY

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20___, before me personally came _____,
to me known, who, being by me duly sworn, did depose and say that he/she resides at:

(street, city, state, zip code)

that he/she is the _____ of _____, the
corporation described in and which executed the foregoing instrument; and that he/she signed his/her name thereto by
authority of the Board of Directors of said corporation.

Notary Public

CONTRACT FORMS for CONSTRUCTION

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we:

_____ as
Principal,
(Legal title of the Contractor)

(Street, City, State, Zip Code)

and _____ as Surety,
(Legal title of the Surety)

(Street, City, State, Zip Code)

are held and firmly bound unto the Dormitory Authority, 515 Broadway, Albany, New York 12207, as Obligee, hereinafter called the Owner, in the amount of:

_____ Dollars
(Written Dollar Amount)

_____ ()
(Figure Dollar Amount)

for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, CONTRACTOR, has by written agreement dated _____

entered into a Contract with the Owner for:

(Title of Project)

in accordance with the Contract Documents and any changes thereto, which are made a part hereof, and are hereinafter referred to as the Contract.

- A. If the Contractor well and fully performs the Contract, the Surety and the Contractor shall have no obligation under this Performance Bond, except to participate in conferences as provided in paragraph B1.
- B. If there is no Owner Default, the Surety's obligation under this Performance Bond shall arise after:
 - 1. The Owner has notified the Contractor and Surety that the Owner is considering declaring a Contractor Default; and
 - 2. The Owner has declared a Contractor Default.

PERFORMANCE BOND

- C. When the Owner has satisfied the conditions of paragraph B, the Surety shall, at the Owner's option, and at the Surety's expense take one the following actions within twenty (20) days after written notice is sent by the Owner to the Surety declaring a Contractor Default:
1. Arrange for the Contractor, with consent of the Owner, to perform and complete the Contract.
 2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors.
 3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Payment Bond and Performance Bond issued on the Contract, with a contract price between the Owner and contractor equal to the Balance of the Contract Price, and pay to the Owner the amount of damages as described in paragraph E in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor Default.
 4. Tender to the Owner the amount of this Performance Bond.
- D. If the Surety does not proceed within the time prescribed in paragraph C , the Surety shall be deemed to be in default on this Performance Bond, and the Owner shall be entitled to enforce any remedy available to the Owner.
- E. After the Owner has declared a Contractor Default, and when the Surety acts under paragraph C1, C2, or C3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Contract. When the Surety acts under paragraph C1, C2 or C3 above, the Owner will agree to pay the Balance of the Contract Price to the Surety in accordance with and subject to the terms of the Contract or to a contractor selected to perform and complete the Contract in accordance with and subject to the terms of the contract between the Owner and contractor. When the Surety acts under paragraph C1 or C2 above, the Surety's obligation to perform and complete the Contract is not limited by the amount of this Performance Bond and the Balance of the Contract Price. When the Surety acts under paragraph C1, C2 or C3 above or fails to act under paragraph C, the Surety, in addition to its other obligations, is obligated without duplication for:
1. Additional legal, Design Professional, Consultant and delay costs resulting from the Contractor Default, or resulting from the actions or failure to act of the Surety under paragraph C.
 2. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages for loss of beneficial use of the Work caused by delayed performance or non-performance of the Contractor.
- F. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Performance Bond to any person or entity other than the Owner or its successors or assigns.
- G. This Performance Bond and the Surety's obligations shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the Contract or the Work to be performed thereunder, or by the payment thereunder before the time required therein, or by any waiver of any provision or condition precedent or subsequent thereof, or by settlement or compromise of any claim or dispute related there to, or by assignment, subcontract or other transfer of the Work or any part thereof, or of any monies due or to become due thereunder; and the Surety hereby waives notice of any

CONTRACT FORMS for CONSTRUCTION

PERFORMANCE BOND

and all such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers.

- H. Any and all things done and omitted to be done by and in relation to assignees, subcontractors, and other transferees shall have the same effect as to the Surety as though done or omitted to be done by or in relation to the Principal.
- I. The obligations of the Surety under this Performance Bond shall be in no way impaired or affected by any winding up, insolvency, bankruptcy, or reorganization of the Principal or by any other rearrangement of the Principal for the benefit of creditors.
- J. The Owner's acceptance of this Performance Bond shall in no way, for any purpose, limit or be claimed to limit the liability of the Principal under the Contract, but such liability shall remain in all respects to the same extent as is provided for in the Contract.
- K. Notice to the Surety and the Contractor shall be mailed or delivered to the address shown on the signature page. Notice to the Owner shall be mailed or delivered to the address shown in the preamble.
- L. Definitions:
 - 1. **Balance of the Contract Price** - The total amount payable by the Owner to the Contractor under the Contract after all proper adjustments (increases and reductions) allowed by the Contract have been made, including, but not limited to, allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Contract.
 - 2. **Contract** - The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents as defined in the General Conditions of the Contract and all changes, modifications, amendments, additions, and alterations thereto after the date of this Performance Bond.
 - 3. **Contractor Default** - Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
 - 4. **Owner Default** - Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Contract or to perform and complete or comply with the other material terms thereof.
- M. The penal sum of this Performance Bond is in addition to any other bond furnished by the Contractor and in no way shall be impaired or affected by any other bond.

CONTRACT FORMS for CONSTRUCTION

PERFORMANCE BOND

N. Any suit under this Performance Bond must be instituted before the expiration of two (2) years from the date on which Final Payment is made under this Contract.

Signed as of this ___ day of _____ 20__

IN THE PRESENCE OF:

(Principal)

(Surety)

(Signature)

(Signature)

(Title)

(Title)

(Address)

(Address)

(City, State, Zip Code)

(City, State, Zip Code)

(Phone Number & FAX Number)

(Phone Number & FAX Number)

(Email Address)

(Email Address)

ACKNOWLEDGEMENT OF CONTRACTOR EXECUTING PERFORMANCE BOND
IF A CORPORATION

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20___, before me personally came _____,
to me known, who, being by me duly sworn, did depose and say that he/she resides at:

_____ (street, city, state, zip code)

that he/she is the _____ of _____, the
corporation described in and which executed the foregoing instrument; and that he/she signed his/her name thereto by
authority of the Board of Directors of said corporation.

Notary Public

ACKNOWLEDGEMENT OF CONTRACTOR EXECUTING PERFORMANCE BOND
IF A PARTNERSHIP, LIMITED LIABILITY COMPANY OR INDIVIDUAL

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20___, before me, the undersigned, a Notary Public in and for said
State, personally appeared _____, personally known or proved to me
on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument
and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their
signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed
the instrument.

Notary Public

ACKNOWLEDGEMENT OF SURETY

STATE OF _____

COUNTY OF _____

On the ___ day of _____ in the year 20___, before me personally came _____,
to me known, who, being by me duly sworn, did depose and say that he/she resides at:

_____ (street, city, state, zip code)

that he/she is the _____ of _____, the
corporation described in and which executed the foregoing instrument; and that he/she signed his/her name thereto by
authority of the Board of Directors of said corporation.

Notary Public

DASNY

DORMITORY AUTHORITY STATE OF NEW YORK

WE FINANCE, BUILD AND DELIVER.

Construction General Conditions

ALBANY (HEADQUARTERS): 515 Broadway, Albany, NY 12207 | 518-257-3000

BUFFALO: 6047 Transit Road, Suite 103, East Amherst, NY 14051 | 716-566-4400

NEW YORK CITY: 28 Liberty Street, Fl 55, New York, NY 10005 | 212-273-5000

ROCHESTER: 3495 Winton Place, Building C, Suite 1, Rochester, NY 14623 | 585-461-8400

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GENERAL CONDITIONS

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ARTICLE 1 -- DEFINITIONS

Section 1.01 - Definitions

The following terms as used in the Contract Documents shall be defined as follows:

Addendum or Addenda – Additional provisions of the Contract Documents issued in writing prior to the receipt of bids.

Alternate – Scope(s) of Work stated in the Contract documents to be added or deducted from the Contractor's base bid amount for alternate labor, materials and/or methods of construction.

Allowance – A sum of money set aside in the Agreement and included in the Contractor's lump sum base bid for a scope of work which has been specified in the Allowance section of the General Requirements. Reimbursement for Allowance work shall be as per General Conditions Article 7 – Changes in the Work.

Application for Payment – A Contractor's written billing request, on a form:

- A. prepared by the Owner from the Schedule of Values approved by the Owner;
- B. completed by the Contractor;
- C. adjusted by the Owner; and
- D. signed by the Contractor,

requesting partial or full payment for partial or full performance of the Contract.

Beneficial Occupancy – The stage in the performance of the Work prior to Substantial Completion when a designated portion of the Work is sufficiently complete in accordance with the Contract Documents so the Owner or Client can occupy or utilize such portion of the Work for its intended use, evidenced by the Notice of Beneficial Occupancy executed by the Owner following approval from the Authority Having Jurisdiction. Beneficial Occupancy may or may not allow for completion of outstanding punchlist items, as required by the Contract Documents. Notice of Beneficial Occupancy requires that the designation portion of Beneficial Occupancy Work function in a safe, reliable and warrantable manner.

Change Order – Written notice, in a standard Owner's form, to the Contractor, signed by the Contractor and executed by the Owner, changing the Contract Documents in accordance with General Conditions Article 7 - Changes in the Work, or a Forced Change Order.

Claim - A demand by the Contractor seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, an extension of time, or other relief with respect to the terms of the Contract. The term Claim also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract.

Client - The entity for whom the Dormitory Authority is performing services, including subsidiaries, agents, related corporations, or fiduciaries of the entity.

Construction Manager - A natural person, partnership, limited liability company, corporation, or other legal entity regularly engaged in management of construction projects, and so designated by the Owner.

GENERAL CONDITIONS

Consultant - A natural person, partnership, limited liability company, corporation, or other legal entity providing architectural, engineering, construction management, testing, inspection, commissioning, or other professional services, and so designated by the Owner.

Contract - The agreement between the Owner and the Contractor consisting of the Contract Documents.

Contract Amendment – A written instrument, signed by an authorized officer of the Dormitory Authority and an authorized officer of Contractor, amending, modifying, changing, or supplementing the Contract.

Contract Completion and Acceptance - The stage in the performance of the Work when all Work required to be performed by the Contract, including but not limited to submission of all documentation required for final payment, except any Work that may be required in the future with respect to:

- A. any warranty or guarantee in the Contract Documents;
- B. General Conditions Article 6 – Subcontracts, Sections 6.01 E through I;
- C. General Conditions Article 14 - Protection of Persons and Property; or
- D. General Conditions Article 15 – Insurance and Bonds,

is complete in accordance with the Contract Documents, evidenced by the Notice of Contract Completion and Acceptance executed by the Owner. Contract Completion and Acceptance follows or may be concurrent with Physical Completion.

Contract Documents - The Notice to Bidders, Information for Bidders, Form of Bid, Agreement, Payment Bond, Performance Bond, General Conditions, General Requirements, Drawings, Specifications, Addenda, Change Orders, Contract Amendments, and all provisions of law deemed to be included in the Contract.

Contractor - A natural person, partnership, limited liability company, corporation, or other legal entity with whom the Owner enters into the Contract to perform the Work.

Design Professional - A natural person, partnership, limited liability company, corporation, or other legal entity providing architectural or engineering professional services, and so designated by the Owner.

Disputed Work Directive - Written directive, in a standard Owner's form, from and executed by the Owner to the Contractor directing the Contractor to proceed with the Work described in the Disputed Work Directive in accordance with General Conditions Article 10 – Claims and Disputes.

Dormitory Authority - Dormitory Authority of the State of New York, a public benefit corporation established by the laws of the State of New York with its principal office located at 515 Broadway, Albany, New York, 12207-2964.

Extra Work - Any work in addition to the Work initially required to be performed by the Contractor pursuant to the Contract Documents.

Facility – the operating unit of the Client where the Site is located.

False Claim – Any Claim which is, either in whole or part, false or fraudulent.

GENERAL CONDITIONS

False Representation – This action takes place when a person has knowledge of the value of the work and materials supplied, performed, or proposed (the “Information”) constituting the Claim, Change Order, or Application for Payment and either:

- A. acts in deliberate ignorance of the truth or falsity of the Information or
- B. acts in reckless disregard of the truth or falsity of the Information.

Forced Change Order –Written notice, in a standard Owner’s form, to the Contractor, without the Contractor’s signature and executed by the Owner, changing the Contract Documents in accordance with General Conditions Article 7 – Changes in the Work.

Furnish - To deliver to the Site ready for installation.

Hazardous Material – any substance (gas, liquid, or solid) or agent (biological, chemical, radiological, physical, or having two or more of the preceding characteristics) which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors, including but not limited to heavy metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, herbicides, dioxins, biological wastes, carcinogens, asbestos or any substance containing asbestos, polychlorinated biphenyls, lead, urea formaldehyde, explosives, radionuclides, radioactive materials, chemicals known or suspected to cause cancer or reproductive toxicity, pollutants, effluents, contaminants, emissions, infectious wastes, any petroleum or petroleum-derived waste or product or related materials, and any item defined as a hazardous, special, or toxic material, substance, or waste under any Hazardous Material Law, including, but not limited to, the NYS Environmental Conservation Law and Title 6 of the New York Code of Rules and Regulations.

Hazardous Material Laws – collectively, any present federal, state or local law, including all valid amendments, relating to public health, safety, or the environment, including without limitation, the Resource Conservation and Recovery Act (“RCRA”), 42 U.S.C. §6901 et seq.; the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), 42 U.S.C. §9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (“SARA”); the Clean Air Act, 42 U.S.C. §7401 et seq.; the Hazardous Materials Transportation Act, 49 U.S.C. §5101 et seq.; the Clean Water Act, 33 U.S.C. §1215 et seq.; the Toxic Substances Control Act, 15 U.S.C. §2601 et seq.; the Safe Drinking Water Act, 42 U.S.C. §300f et seq.; the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §136 et seq.; the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. §11001 et seq.; the Occupational Safety and Health Act of 1970, 29 U.S.C. §651 et seq.; the Atomic Energy Act, 42 U.S.C. §2201 et seq.; the NYS Environmental Conservation Law; the NYS Labor Law; the NYS Public Health Law; and the amendments, regulations, orders, decrees, permits, licenses or deed restrictions now or hereafter enacted or promulgated under any such statute.

Install - To unload at the delivery point at the Site and perform every operation necessary to establish secure mounting and correct operation at the proper location.

Letter of Intent - Written notice, signed by the Owner, to the Contractor, which accepts the Contractor’s Form of Bid and transmits the Agreement, Payment Bond, Performance Bond, and other documents to the Contractor for execution. The Letter of Intent is not the formal notice to begin the physical Work of the Contract.

Means and Methods of Construction - Labor, materials, temporary structures, tools, plant, and construction equipment, and the manner and time of their use, necessary to accomplish the result intended by the Contract Documents.

GENERAL CONDITIONS

Notice of Beneficial Occupancy – Written notice, in a standard Owner’s form, to the Contractor, executed by the Owner and delivered to the Contractor prior to Substantial Completion, that certain Work of the Contract Documents, identified in such Notice of Beneficial Occupancy, satisfies the criteria for Beneficial Occupancy and will be occupied or utilized by the Owner or Client.

Notice of Contract Completion and Acceptance – Written notice, in a standard Owner’s form, to the Contractor, executed by the Owner, that the Work required to be performed by the Contract Documents, except any Work required by any warranty or guarantee in the Contract Documents, satisfies the criteria for Contract Completion and Acceptance.

Notice of Physical Completion - Written notice, in a standard Owner’s form, to the Contractor, executed by the Owner, that the Work of the Contract Documents satisfies the criteria for Physical Completion.

Notice of Substantial Completion - Written notice, in a standard Owner’s form, to the Contractor, executed by the Owner, that the Work of the Contract Documents satisfies the criteria for Substantial Completion and constitutes the start of the guarantee period.

Notice to Proceed –

- A. Written notice, signed by the Owner, to the Contractor, that acknowledges receipt by the Owner of the signed Agreement, Payment Bond, and Performance Bond from the Contractor and directs the Contractor to start performance of the Work; or
- B. Written notice, in a standard Owner’s form, to the Contractor, executed by the Owner, directing the Contractor to proceed with the change in the Work described therein in accordance with General Conditions Article 7 – Changes in the Work. A Notice to Proceed cannot change the Contract amount or the date to achieve Substantial Completion. A Notice to Proceed can change only the General Requirements, the Drawings, or the Specifications.

NYS – New York State

Other Contractor(s) – The one or more natural persons, partnerships, limited liability companies, corporations, or other legal entities who have entered into a contract with the Owner to perform work (including services) at or near the Site, identified in the Contract Documents or in writing by the Owner, including, but not limited to, contractors, Construction Managers, Consultants, and Design Professionals. Other Contractors does not include the Contractor.

Owner - Dormitory Authority of the State of New York.

Owner's Representative - A natural person, partnership, limited liability company, corporation, or other legal entity so designated by the Owner to act on behalf of the Owner. See General Conditions Section 2.03 for limitations and further provisions on the Owner’s Representative.

Physical Completion – The stage in the performance of the Work when all Work to be performed at the Site, except any Work that may be required in the future by any warranty or guarantee in the Contract Documents, is complete in accordance with the Contract Documents, evidenced by the Notice of Physical Completion executed by the Owner. Physical Completion precedes or may be concurrent with Completion and Acceptance. Physical Completion requires that all punchlist work be completed by the Contractor such that the Contractor no longer is required to perform Work at the site. All insurances must remain in effect

GENERAL CONDITIONS

until the Contractor achieves Physical Completion and the Contractor is required to submit certified payrolls through the date of Notice of Physical Completion.

Project - The work at or near the Site(s) carried out pursuant to the Contract and one or more other contracts.

Project Management Program – The software program used by the Owner to manage, monitor, and oversee performance of the Contract.

Provide - To Furnish and Install the Work complete in place and ready for its intended use.

Resume Work Order or Directive – Written notice, signed by the Owner, to the Contractor, to recommence or continue Work of the Contract Documents.

Schedule of Values – a form provided by the Owner, completed by the Contractor, and submitted to the Owner for review and written approval; the completed, approved form establishes a minimum level of allocation of the Contract amount among the items of Work to formulate the Contractor's billing requests.

Site - The area(s) within the Contract limit, as indicated by the Contract Documents.

Stop or Suspend Work Order or Directive- Written notice, signed by the Owner, to the Contractor, to cease or hold Work of the Contract Documents.

Subcontract - An agreement between the Contractor and Subcontractor for Work on the Site.

Subcontractor - A natural person, partnership, limited liability company, corporation, or other legal entity under contract with the Contractor, or under contract with any Subcontractor, to perform any portion of the Work, or to provide any labor, material, equipment, or service at the Site.

Substantial Completion – The stage in the performance of the Work when all Work is sufficiently complete in accordance with the Contract Documents so the Owner or Client can occupy or utilize the Work for its intended use, evidenced only by the Notice of Substantial Completion executed by the Owner. Issuance of a temporary certificate of occupancy or a temporary approval for occupancy does not establish Substantial Completion. Work at the site (Physical Completion), and Work required by the Contract (Completion and Acceptance) may still be required.

Unit Price – The price for one measured unit (i.e. cu. ft., sq. foot etc.) of completed Work activity. Each Unit Price includes all labor, material, equipment, overhead, and profit attributable to that scope of Work. Unit Prices shall be based upon estimated quantities specified in the Unit Prices section of the General Requirements and as listed on the Form of Bid and will be paid based upon actual quantities of Work performed as verified by the Owner.

Unmanned Aircraft System (UAS or DRONES)- An aircraft and its associated elements (including communication links and the components that control the unmanned aircraft) operated without the possibility of direct human intervention from within or on the aircraft.

Work - All obligations explicitly and implicitly imposed upon the Contractor by the Contract Documents.

ARTICLE 2 -- CONTRACT DOCUMENTS

Section 2.01 - Captions

The table of contents, titles, captions, headings, running headlines, and marginal notes contained herein and in the Contract Documents are solely to facilitate reference to various provisions of the Contract Documents and in no way affect the interpretation of the provisions to which they refer.

Section 2.02 – Electronic Data Transfer

- A. Electronic data includes, but is not limited to, all digital versions of any Contract Document, all digital files produced by mechanical, facsimile, electronic, magnetic, digital or other programs, programming notes or instructions, activity listings of electronic mail receipts or transmittals, output resulting from the use of any software program, including but not limited to, word processing documents, spreadsheets, database files, charts, graphs, drawings, specifications, outlines, electronic mail, personal digital assistant messages, instant messenger messages, PDF files, PRF files, batch files, ASCII files, DWG files and any other type of files now or hereafter allowed by Owner.
- B. The Owner reserves the right to implement an electronic payment program for payments due the Contractor. Prior to implementation, the Owner, in writing, shall notify the Contractor one hundred twenty (120) calendar days prior to the effective date of the electronic payment program. Commencing on or after the electronic payment effective date, all payments, due the Contractor, shall only be rendered electronically, unless payment by paper check is authorized in writing by the Owner. Commencing on or after the electronic payment effective date, the Contractor, further acknowledges and agrees that the Owner may withhold payments, if the Contractor has not complied with the Owner's policies and procedures relating to the electronic payment program in effect at such time, unless payment by paper check is authorized in writing by the Owner.
- C. Electronic data produced in connection with the Contract is proprietary information of the Owner and to be treated as confidential and not to be disclosed to or shared with others outside the limits of the Contract without the express written consent of the Owner. The Owner makes no warranty, express or implied, as to the accuracy of the information transferred.
- D. The Contractor shall pay, on behalf of the Owner, any loss which the Owner becomes legally liable to pay as a result of a claim by any person or entity against the Contractor or Owner, which results directly from an act, error, or omission of the Contractor in the provision of electronic data in respect to the Contract.

Section 2.03 - Owner

- A. The Contract constitutes the entire agreement and understanding between the Contractor and the Owner with respect to the Project and supersedes all prior agreements, arrangements and understandings, and all trade custom and trade usage, and the construction of any provision of the Contract shall not be affected by the wording of any other agreement, whether between the Contractor and the Owner or involving other parties. The Contract may not be amended, modified, supplemented, or changed in any way except in accordance with General Conditions Article 7 – Changes in the Work or a Contract Amendment. The legal relationship between the Owner and the Contractor shall be governed solely by the Contract and no rights shall arise on any other basis, including but not limited to, oral agreement, partial performance, estoppel, conduct of the parties, course of conduct or any other course of dealing

GENERAL CONDITIONS

involving the Project or any other project. The meaning and intent of the Contract Documents shall be interpreted solely by the Owner.

- B. The Owner shall give all orders and directions contemplated under the Contract relative to the execution of the Work. The Owner shall determine the amount, quality, and acceptability of the Work and shall decide all questions which may arise in relation to said Work. The Owner's estimates and decisions shall be final except as otherwise expressly provided herein.
- C. The Owner may, at its sole and exclusive discretion, waive certain provisions of the Contract Documents. Such waiver shall only be done by written instrument signed by a duly authorized officer of the Owner, and any such waiver shall apply solely in accordance with its terms and shall not act as a waiver of any provision of the Contract Documents, or estoppel against the enforcement thereof, in connection with any subsequent or separate event involving the Project or other projects.
- D. Any differences or conflicts concerning performance which may arise between the Contractor and Other Contractors performing work for the Owner shall be analyzed and resolved by the Owner as warranted by the circumstances. The Owner's exercise of discretion in this regard shall be sole and exclusive and its decision concerning such differences and conflicts shall be final and binding.
- E. The Owner may act through an Owner's Representative designated as such in writing by the Owner. Unless otherwise designated by the Owner, the Owner's Representative is the Owner's employee assigned to the Project as the project manager. Unless otherwise stated in writing by the Owner, the Owner's Representative is not an authorized officer of the Owner, does not have authority to approve a Labor Rate Worksheet on behalf of the Owner, does not have authority to waive the requirement for a narrative and fragnet schedule of General Conditions Section 7.01 C. 4, does not have authority to waive any provision of the Contract Documents and does not act for the Owner for General Conditions Article 15 – Insurance and Bonds. Unless otherwise stated in writing by the Owner and notwithstanding the other provisions of this paragraph, the Owner's Representative does have authority to issue a direction to attend a meeting in accordance with General Conditions Section 4.04, a Notice to Proceed in accordance with General Conditions Section 7.01 and a Disputed Work Directive in accordance with General Conditions Section 10.01. The Owner may change the Owner's Representative and the scope of her, his or its duties by written notice to the Contractor in accordance with General Conditions Section 2.04. The Owner's Representative's signature by itself on a Change Order is not execution of a Change Order by the Owner. See General Conditions Section 7.01 A. 5 for the requirements for execution of a Change Order by Owner.

Section 2.04 - Notice and Service Thereof

- A. Any notice to the Contractor from the Owner relative to any part of the Contract shall be in writing and service considered complete when said notice is sent or delivered in person to the Contractor or its authorized representative, at the street address, postal address or email address given by the Contractor in the Form of Bid. The Contractor may change any of these addresses by written notice to the Owner's Procurement Unit, 515 Broadway, Albany, New York 12207 - 2964; such change shall not be effective until Contractor receives from the Owner's Procurement Unit a written acknowledgement that the change has been received.
- B. Any notice from the Contractor to the Owner required by any part of the Contract shall be in writing and shall be sent or delivered to the Owner's Representative at the street address, postal address or email address for the Owner's Representative given in the Notice to Bidders. The Owner may change the Owner's Representative or any of these addresses by written notice to the Contractor. If any part of the Contract shall require the Contractor to provide notice to any other employee or unit of the

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Owner, the notice to such employee or unit is in addition to, and does not replace, the notice to the Owner's Representative. Notice to the Owner may be delivered by certified mail, overnight delivery by a nationally recognized courier or, if an email address is provided, email. The Owner's Representative will endeavor to provide a written acknowledgment of receipt of the notice but any failure to provide such written acknowledgment shall not be a breach of the Contract, shall not in any way alter the Contractor's obligation to provide timely notice and shall not in any way alter any of the other obligations of the Contractor under the Contract.

- C. For all notices from the Contractor to the Owner required by any part of the Contract, the Contractor shall have the burden of proving the Owner's receipt of the notice.

Section 2.05 - Nomenclature

Materials, equipment, or other Work not defined or specified in the Contract but described in words that have a generally accepted technical or trade meaning shall be interpreted as having said meaning in connection with the Contract.

Section 2.06 - Invalid Provisions

If any term or provision of the Contract Documents or the application thereof to any natural person, partnership, limited liability company, corporation or other legal entity or circumstance shall, to any extent, be determined to be invalid or unenforceable, the remainder of the Contract Documents, or the application of such terms or provisions to natural persons, partnerships, limited liability companies, corporations or other legal entities or circumstances other than those to which it is held invalid or unenforceable, shall not be affected thereby and each term or provision of the Contract Documents shall be valid and be enforced to the fullest extent permitted by law. It is the intent of the Owner and the Contractor that all provisions of the Contract shall be construed to be valid under applicable law and shall be enforced to the maximum extent possible.

Section 2.07 – Interpretation of Contract Documents

- A. Should any provision in the Contract Documents be in conflict or inconsistent with the General Conditions or supplements thereto, the General Conditions or supplements thereto shall govern.
- B. Figured dimensions shall take precedence over scaled dimensions. Larger scale Drawings shall take precedence over smaller scale Drawings. Latest Addenda shall take precedence over previous Addenda and earlier dated Drawings and Specifications.
- C. Should a conflict occur in or between or among any parts of the Contract Documents that are entitled to equal preference, the better quality or greater quantity of material or more onerous provision in the Owner's judgment shall govern, regardless of cost, unless the Owner directs otherwise in writing. In each conflict, the Owner, in its sole and exclusive discretion, shall determine whether the quality, quantity or onerous provision method will be used to resolve the conflict.
- D. Drawings and Specifications are complementary. Anything shown on the Drawings and not mentioned in the Specifications, or mentioned in the Specifications and not shown on the Drawings, shall have the same effect as if shown or mentioned in both.
- E. The term "materials" includes "supplies".

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- F. Words of the masculine gender shall be deemed and construed to include correlative words of the feminine and neuter genders. Unless the context shall otherwise indicate, words importing the singular number shall include the plural number and vice versa.

Section 2.08 - Copies of Contract Documents

The Owner may furnish to the Contractor up to three (3) paper copies and one electronic (PDF) copy of the Contract Documents without charge. Additional sets may be furnished at the costs of reproduction and mailing.

ARTICLE 3 -- SITE CONDITIONS

Section 3.01 - Subsurface or Site Conditions Found Different

- A. The Contractor acknowledges that the Contract amount set forth in its bid includes such provisions which the Contractor deems sufficient for all subsurface or site conditions the Contractor could reasonably anticipate encountering as indicated in the Contract Documents, or borings, reports, rock cores, foundation investigation reports, topographical maps, or other information available to the Contractor or from the Contractor's inspection and examination of the Site prior to submission of bids.
- B. The Owner assumes no responsibility for the correctness of any boring or other subsurface information and makes no representation whatsoever regarding subsurface conditions and test borings, reports, rock cores, foundation investigation and topographical maps which may be made available to the Contractor.
- C. Should the Contractor encounter subsurface or site conditions at the Site materially differing from those shown on or described in or indicated in the Contract Documents, the Contractor shall immediately give written notice to the Owner of such conditions and shall not disturb said conditions until authorized to do so by the Owner in writing.
- D. Subsurface or site conditions found materially differing from those that could have been reasonably anticipated may be cause for change to the Contract amount and time of completion. This determination will be made at the sole and exclusive discretion of the Owner.

Section 3.02 - Verifying Dimensions and Conditions

- A. The Contractor shall take all measurements at the Site and shall verify all dimensions and conditions at the Site before proceeding with the Work. If said dimensions or conditions are found to conflict with the Contract Documents, the Contractor immediately shall refer said conflict to the Owner in writing. The Contractor shall comply with any revised Contract Documents.
- B. During the performance of the Work, the Contractor shall verify all field measurements prior to fabrication of building components or equipment, and proceed with the fabrication to meet field conditions.
- C. The Contractor shall review all Contract Documents to determine exact location of all Work and verify spatial relationships of all the Work. Any question concerning said location or spatial relationships shall be submitted in a manner approved by the Owner.
- D. Special locations for equipment, pipelines, ductwork, and other such items of the Work, where not dimensioned on plans, shall be coordinated with affected Other Contractors.

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E. The Contractor shall be responsible for the proper fitting of the Work in place.

Section 3.03 - Surveys

Unless otherwise expressly provided in the Contract Documents, the Owner shall furnish the Contractor all surveys of the property necessary for the Work, but the Contractor shall lay out the Work.

ARTICLE 4 -- CONTRACTOR

Section 4.01 - Representations of Contractor

The Contractor represents and warrants:

- A. That it is financially solvent and is experienced in and competent to perform the Work, and has the staff, workers, equipment, subcontractors, and suppliers to complete the Work within the time specified for the Contract amount.
- B. That it is familiar with all federal, state, and local laws, codes, ordinances, orders, rules, and regulations which may affect the Work, the Contractor, or the Project.
- C. That all temporary and permanent Work required by the Contract Documents can be satisfactorily constructed, and that said construction will not injure any person or damage any property.
- D. That it has carefully examined the Contract Documents and the Site, and from the Contractor's own investigations is satisfied as to the nature and materials likely to be encountered, the character of equipment and other facilities needed for the performance of the Work, the general and local conditions, and all other materials or items which may affect the Work.
- E. That it is satisfied that the Work can be performed and completed as required in the Contract Documents, and warrants that it has not been influenced by any oral statement or promise of the Owner or the Design Professional.
- F. That to the best of Contractor's knowledge, there are no pending or threatened suits, proceedings, judgments, rulings, or orders by or before any court or any governmental agency or arbitrator that could reasonably be expected to affect materially and adversely:
 - 1. the financial condition or operations of the Contractor;
 - 2. the ability of the Contractor to perform its obligations hereunder; or
 - 3. the legality, validity, or enforceability of this Contract.
- G. That Contractor is a duly organized and validly existing entity of the type described in the recital clauses of the Agreement and is in good standing under the laws of the jurisdiction of its formation; it has the legal right, power, and authority and is qualified to conduct its business and to execute and deliver this Contract and perform its obligations under this Contract; and all regulatory authorizations have been obtained and will be maintained, as necessary, for it to perform legally its obligations under this Contract.
- H. That executing and performing this Contract are within Contractor's powers; that executing and performing this Contract has been duly authorized by all necessary action on the Contractor's part; and

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that such actions do not and will not violate any provision of law or any rule, regulation, order, writ, judgment, decree, or other determination presently in effect applicable to Contractor or its governing documents.

- I. That this Contract constitutes the Contractor's legal, valid, and binding obligation, enforceable against it in accordance with this Contract's terms, subject to applicable bankruptcy, insolvency, reorganization, and other laws affecting creditors' rights generally, and general equitable principles, to the discretion of the court before which proceedings to obtain the same may be pending.
- J. That Contractor is in good standing with any union with craft labor on the Site for part or all the Work of this Contract or the work of the Project.
- K. That Contractor is experienced in the methods of design, engineering, installation, management, and construction contemplated for the Work of this Contract and for contracts of this nature, scope magnitude and quality and that the Contractor understands the complexity involved in this type of Contract and the necessity to coordinate its Work with appropriate governmental agencies, the Owner, and the Other Contractors.
- L. That Contractor is fully informed as to all existing conditions and limitations, including local workforce/labor working arrangements and the continuous, regular, and uninterrupted operations of the Facility.
- M. That Contractor has had the opportunity to consult with or has consulted with legal counsel of its choice before entering into this Contract.
- N. That any breach of any of the representations and warranties of this General Conditions Section 4.01, any failure of the Contractor to familiarize itself with the Contract Documents, the Facility, the Site or the Project or any lack of knowledge on the part of the Contractor of any existing or foreseeable condition or conditions at the Site reasonably inferred from the Contract Documents which create difficulties or hindrances in the execution of the Work shall constitute a conclusive and binding determination by the Contractor that resolving any adverse impact of such breach, failure or lack of knowledge does not constitute Extra Work and a waiver by the Contractor of all Claims for additional compensation or damages or time to achieve Substantial Completion as a result of the breach, failure or lack of knowledge.

Section 4.02 - Errors or Discrepancies

The Contractor shall examine the Contract Documents thoroughly before commencing the Work and report any errors or discrepancies to the Owner, in writing, within fifteen (15) calendar days of discovery. The Owner shall not be responsible for costs, damages or delays due to the Contractor's failure to comply with the requirements of this General Conditions Section 4.02.

Section 4.03 - Coordinated Composite Drawings

- A. The Contractor shall prepare coordinated composite drawings clearly showing how the Work of the Contractor is to be performed in relation to the work of Other Contractors, prepare scaled drawings and sections in the same digital software program, version, and operating system as the original Contract Drawings or in an operating system approved by the Owner.
- B. If, and only if, required by the Information for Bidders for the Contract, the Contractor shall run a conflicts and coordination check utilizing the Project Drawings within a three-dimensional software

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program of the Contractor's choice to limit the number of physical conflicts that may occur during construction. Failure to run such a conflicts and coordination check or to resolve conflicts and coordination issues identified as a result of such a check prior to the initiation of the Work on Site shall constitute a:

1. conclusive and binding determination by the Contractor that resolution of the conflicts does not involve Extra Work; and
2. waiver by the Contractor of all Claims for additional compensation, damages, or time to achieve Substantial Completion as a result of the existence of physical conflicts.

Section 4.04 - Meetings

The Contractor shall attend all meetings required by the Contract Documents and all meetings when directed to attend by the Owner. The Contractor shall be represented at all meetings by the on-Site superintendent described in General Conditions Section 4.05 A who shall attend the meetings in person unless the Owner in writing prior to the meeting directs otherwise. If the Owner directs, the Contractor shall be represented either by the project management personnel of General Conditions 4.05 B or by an authorized officer of Contractor; in each case, the project management personnel or the authorized officer shall attend the meetings in person. The Owner, in its sole and exclusive discretion, shall determine the time, date, location, and purpose of the meeting. The purpose of a meeting includes, but is not limited to, Project progress, submittal status, Change Orders, site logistics, coordination, inspections, testing, safety reviews, or anything which the Owner determines is useful for administration or performance of the Contract or the Project.

Section 4.05 - Supervision by Contractor

- A. The Contractor shall provide full-time competent supervision for the duration of the Contract. During the course of on-Site Work, the Contractor shall provide a full-time on-Site superintendent who shall have full authority to act for the Contractor at all times. The superintendent shall read, write, and speak English fluently, as well as communicate with the Contractor's workers and the workers of all Subcontractors.
- B. The Contractor shall also provide competent project management personnel in addition and superior to the full-time on-Site superintendent who shall also have full authority to act for the Contractor at all times except such project management personnel cannot modify or rescind any action of the full-time on-Site superintendent directed to the Owner without the Owner's written consent.
- C. If at any time the supervisory staff is not satisfactory to the Owner, the Contractor shall, if directed in writing by the Owner, immediately replace such supervisory staff with other staff satisfactory to the Owner at no additional cost to the Owner.
- D. The Contractor shall remove from the Work any employee of the Contractor or of any Subcontractor when so directed in writing by the Owner.

Section 4.06 – Project Scheduling

- A. The Contractor shall provide a project scheduler, experienced in critical path method (CPM) scheduling. The scheduler's experience and credentials shall be submitted in writing to the Owner for review and acceptance prior to proceeding with scheduling of the Work. The Owner may withdraw its acceptance of the project scheduler at any time thereafter for failure to perform in accordance with the Contract. The Contractor shall provide a replacement scheduler and submit the replacement's

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experience and credentials in writing to the Owner for review and acceptance as soon as possible. The replacement scheduler shall be at no additional cost to the Owner.

- B. Using the software required by the Owner, the Contractor shall prepare, maintain, and revise the Project CPM schedule to plan and monitor the progress of all Project operations, in accordance with the Contract Documents. See the General Requirements for further details.
- C. Construction activities shall be interrelated on a single Project CPM schedule that represents the entire Project, including the entire Contract duration from Notice to Proceed to Substantial Completion and through Contract Completion and Acceptance. The Contractor shall utilize the critical path method of network calculation to generate the Project CPM schedule and shall utilize the time-scaled precedence diagram method to show the Project CPM Schedule. The Project CPM Schedule shall utilize calendar days for the time scale. The Contractor shall ensure all logic constraints are identified between the Work of the Contract, the work of Other Contractors and Owner's work prior to approval of the Project CPM schedule. See the General Requirements for further details.
- D. The Owner may reject any proposed Project CPM schedule, any proposed updated Project CPM schedule or any proposed recovery Project CPM schedule if the Owner, in its sole and exclusive discretion, finds the proposed Project CPM schedule, proposed updated Project CPM schedule or proposed recovery Project CPM schedule defective for any reason, including but not limited to:
 - 1. Defective logic;
 - 2. Excessive use of constraints;
 - 3. Activity durations that are inconsistent with actual or available workforce;
 - 4. The appearance of an effort to manipulate the schedule so that responsibility for an adverse impact is associated with a natural person or entity other than the natural person or entity responsible for the adverse impact; or
 - 5. Lacking executive summary and/or narrative.
- E. If a proposed Project CPM schedule, proposed updated Project CPM schedule or proposed recovery Project CPM schedule is rejected by the Owner, the Owner will notify the Contractor in writing of the rejection and the reason or reasons for the rejection. Contractor shall submit a new proposed Project CPM schedule, proposed updated Project CPM schedule or proposed recovery Project CPM schedule with the defect or defects corrected at no cost to the Owner within two weeks of the Owner's written rejection.
- F. Review comments made by the Owner on the proposed Project CPM schedule, any proposed updated Project CPM schedule or any proposed recovery Project CPM schedule shall not relieve the Contractor from compliance with requirements of the Contract Documents. The Contractor shall be responsible for scheduling, sequencing, and performing the Work to comply with the requirements of the Contract Documents.
- G. The Contractor expressly understands and agrees that no additional compensation shall be paid for any alterations to Contractor's planned construction sequence to accommodate the Project CPM schedule requirements, any updated Project CPM schedule or any recovery Project CPM schedule pursuant to

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the Contract. Failure to include any element of work required for the performance of the Work shall not excuse the Contractor from completing all the Work required within the applicable completion date of each phase in the Contract Documents regardless of the Owner's approval of the Project CPM schedule, any updated Project CPM schedule or any recovery Project CPM schedule.

- H. The Owner may withhold payments, in whole or in part, if the Contractor fails to provide an acceptable project scheduler, replacement project scheduler, Project CPM schedule, updated Project CPM schedule, recovery Project CPM schedule or other schedule information or reports in accordance with requirements of the Contract.

Section 4.07 - Worker Identification and Site Access Control

- A. All employees of the Contractor and every Subcontractor shall comply with all site access control, safety and security procedures prescribed by the Owner which may include, but are not limited to, the wearing of Owner issued identification badges, ingress and egress through controlled entry and exit points, and use of card readers or other electronic identity verification devices. Contractor cannot authorize any one to enter the Site, except Contractor's and Subcontractor's employees and persons delivering materials or equipment to Contractor or a Subcontractor, without the prior written consent of the Owner.
- B. All employees of the Contractor and every Subcontractor, prior to entering the Site for the first time, shall obtain an identification badge if issued by the Owner and produce to the Owner a valid form of government-issued photo identification and furnish other background information, including but not limited to the following:

- Full Name
- Last four (4) digits of Social Security Number
- Home Address (#/Street/Apt./City/Zip)
- Contractor/Subcontractor Name
- Job Classification
- Union Local Affiliation, if any

The Owner recognizes that certain information requested above constitutes personal information and will take all reasonable steps to ensure the security and confidentiality of this information as required by law.

- C. All employees of the Contractor and every Subcontractor shall visibly display on their person, while entering and on the Site, an identification badge if issued by the Owner. In the event said identification badge has not been issued by the Owner, all employees of the Contractor and every Subcontractor shall produce a valid form of government-issued photo identification promptly upon request of the Owner. Failure to display such identification or to produce such identification in the manner as prescribed by the Owner may result in the employee's non-admittance to or immediate removal from the Site. The Owner will send written confirmation to the Contractor confirming the action taken, if requested by the Contractor.

Section 4.08 - Related Work

- A. The Contractor should examine the Contract Documents for Work of its Contract and any related work of other contracts, to ascertain the relationship of its Work to any related work of other contracts.

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- B. The Owner may contract with a Design Professional, Construction Manager, or other Consultants to provide services to the Owner. The services enumerated in consultant contracts are for the benefit of the Owner who may choose to utilize any or all of said services. The Contractor has no privity of contract with the Design Professional, Construction Manager, or any other Consultant which contracts with the Owner and should not assume that all of the services enumerated in said contracts will be provided.
- C. The Contractor shall adhere to all of the requirements specified or communicated by the Design Professional in performing delegated design work required by the Contract Documents.

Section 4.09 – Coordination with Separate Contracts

- A. The Owner may award other contracts for work which may proceed simultaneously with the execution of the Work. The Contractor shall coordinate the Contractor's operations with those of Other Contractors as directed by the Owner. Cooperation shall be required in the arrangements for access, the storage of material, and in the detailed execution of the Work.
- B. The Contractor shall take those steps reasonably necessary to keep itself informed of the progress and workmanship of Other Contractors and any subcontractors of Other Contractors and shall notify the Owner in writing immediately of lack of progress or defective workmanship on the part of Other Contractors or any subcontractors of Other Contractors, where said delay or defective workmanship may interfere with the Contractor's operations.
- C. Failure of a Contractor to keep so informed and failure to give written notice of lack of progress or defective workmanship by Other Contractors or any subcontractors of Other Contractors shall be construed as acceptance by the Contractor of said progress and workmanship as being satisfactory for proper coordination with the Work.
- D. Where the Contractor shall perform Work in close proximity to work of Other Contractors or any subcontractors of Other Contractors, or where there is evidence that Work of the Contractor may interfere with work of Other Contractors or any subcontractors of Other Contractors, the Contractor shall assist in arranging space conditions to make satisfactory adjustment for the performance of the Work. If the Contractor performs Work in a manner that causes interference with the work of Other Contractors or any subcontractors of Other Contractors, the Contractor shall make changes necessary to correct the condition at no additional cost to the Owner.
- E. The Contractor shall render any assistance which the Owner may require with respect to any claim or action in any way relating to the Work including, without limitation, review of claims, preparation of technical reports and participation in negotiations, without any additional compensation therefor.

Section 4.10 - Cooperation with Other Contractors

- A. During the performance of the Work, Other Contractors may be engaged in performing work. The Contractor shall coordinate the Contractor's Work with the work of said Other Contractors in such a manner as the Owner may direct.
- B. If the Owner determines that the Contractor is failing to coordinate the Work with the work of Other Contractors as the Owner has directed:
 - 1. The Owner shall have the right to withhold any payments due under the Contract until the Contractor complies with the Owner's direction; and

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2. The Contractor shall assume the defense and pay on behalf of the Owner any and all claims or judgments or damages and any costs to which the Owner may be subjected or which the Owner may suffer or incur by reason of the Contractor's failure to promptly comply with the Owner's directions, including, but not limited to attorney's fees, expert fees, and costs. Notwithstanding the foregoing, the Owner retains the right to select its own counsel for such defense, the cost of which is to be paid by the Contractor.
- C. If the Contractor notifies the Owner, in writing, that an Other Contractor on the Site is failing to coordinate its work with the Work, the Owner shall investigate the charge. If the Owner finds it to be true, the Owner shall promptly issue such directions to the Other Contractor with respect thereto as the situation may require. The Owner shall not be liable for any damages suffered by the Contractor by reason of the Other Contractor's failure to promptly comply with the directions so issued by the Owner, or by reason of an Other Contractor's default in performance.
- D. Should the Contractor sustain any damage through any act or omission of any Other Contractor having a contract with the Owner or through any act or omission of any subcontractor of said Other Contractor, the Contractor shall have no Claim against the Owner for said damage.
- E. Should any Other Contractor having or which shall have a contract with the Owner sustain damage through any act or omission of the Contractor or through any act or omission of a Subcontractor, the Contractor shall reimburse said Other Contractor for all said damages and shall indemnify and hold the Owner harmless from all such claims by said Other Contractor, including, but not limited to attorney's fees, expert fees, and costs. Notwithstanding the foregoing, the Owner retains the right to select its own counsel for such defense, the cost of which is to be paid by the Contractor. The Owner's right to indemnification hereunder shall in no way be diminished, waived, or discharged, by its recourse to assessment of liquidated damages as provided in the Contract Documents, or by the exercise of any other remedy provided by the Contract or law.
- F. The Owner cannot guarantee the responsibility, efficiency, unimpeded operations, or performance of any contractor. The Contractor acknowledges these conditions and shall bear the risk of all delays including, but not limited to, delays caused by the presence or operations of Other Contractors and subcontractors of Other Contractors and delays attendant upon any Project CPM schedule approved by the Owner and the Owner shall not incur any liability by reason of any delay.

ARTICLE 5 -- MATERIALS AND LABOR

Section 5.01 - Contractor's Obligations

- A. The Contractor shall, comply with all the terms of the Contract Documents and complete all the Work in a good worker like manner, within the time specified in the Contract and to the satisfaction of the Owner.
- B. The Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, permits, insurance, temporary structures and other facilities and services necessary for the proper execution and completion of the Work, whether temporary or permanent, and whether incorporated or to be incorporated in the Work or not incorporated in the Work.

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- C. The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.
- D. Any labor, materials or means whose employment, or utilization during the course of the Contract may tend to or in any way cause or result in strike, work stoppages, delays, suspension of Work or similar troubles by workers employed by the Contractor, its Subcontractors or material suppliers, or by any of the trades working in or about the Site, or by Other Contractors, their subcontractors or material suppliers pursuant to other contracts shall not be allowed. Any violation by the Contractor of this requirement may in the sole judgment of the Owner be considered a default by the Contractor under the Contract and a basis for the Owner to take action against the Contractor as set forth in General Conditions Article 11 – Termination or Suspension or such other action as the Owner may deem proper.
- E. The Contractor and each Subcontractor shall comply with all applicable local, state, and federal laws, rules and regulations and all applicable construction standards issued by the Joint Commission and other accrediting agencies and organizations.
- F. The Contractor and each Subcontractor shall comply with all applicable Hazardous Material Laws. The Contractor shall provide the Owner the Safety Data Sheets for any Hazardous Materials or hazardous substances brought on the Site by the Contractor or a Subcontractor at least fifteen (15) calendar days prior to the delivery of such materials to the Site. Contractor shall identify to Owner at least fifteen (15) calendar days in advance the quantities of all "Chemicals of Interest" listed under the Chemical Facility Anti-Terrorism Standards of the Homeland Security Appropriations Act of 2007 that will be brought onto the Site.
- G. Contractor shall provide the necessary information and training to its employees on each Hazardous Material and hazardous substance to which they may be exposed on the Site and shall cause each of its Subcontractors to provide the necessary information and training to the Subcontractor's employees on each Hazardous Material and hazardous substance to which they may be exposed on the Site. Upon request of the Owner, Contractor shall provide the Owner with proof, satisfactory to the Owner, that Contractor's employees and all Subcontractors' employees have received the necessary information and training.
- H. Contractor shall not transport, store or use, and shall prohibit Subcontractors from transporting, storing or using, any construction materials or equipment (whether or not totally enclosed) containing Hazardous Materials including, but not limited to, asbestos, polychlorinated biphenyls, benzene, lead or urea formaldehyde in connection with this Contract; provided, however, Contractor and Subcontractors may transport, store and use the following substances: lead, natural gas, gasoline, diesel fuel, fuel oil(s), gravel(s), lube oil(s), grease(s), sealant(s), combustible gases, form oil(s), solvent(s), adhesives, paints, coatings, and all other materials that are used or consumed in or during construction or testing of the Work and its constituent systems and components in quantities reasonably necessary to perform the Work, if transported, stored and used in accordance with applicable laws including, but not limited to, those laws related to the implementation and utilization of spill containment, transport systems and storage vessels and facilities.
- I. Any Hazardous Materials and hazardous substances brought to or stored on or at the Site shall require specific, prior written authorization from Owner and, as a condition to such authorization, Contractor shall provide Owner with the Material Safety Data Sheet covering any Hazardous Material or hazardous substance furnished under or otherwise associated with the Work (including the construction equipment). Contractor shall maintain on the Site, at all times, complete records, and inventories, including Safety Data Sheets, of Hazardous Materials and hazardous substances described in this

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General Conditions Section 5.01 that are being used by it or its Subcontractors, or any persons for whose actions on the Site Contractor is responsible.

Section 5.02 - Means and Methods of Construction

- A. Unless otherwise provided in the Contract Documents, the Contractor shall choose the Means and Methods of Construction subject to the Owner's right to reject, at any time, the Means and Methods of Construction proposed by the Contractor, which in the opinion of the Owner:
1. Will constitute or create a hazard to the Work or to persons or property;
 2. Will not produce finished Work in accordance with the terms of the Contract;
 3. Will be detrimental to the overall progress of the Project; or
 4. Will have an adverse impact on the operations of the Client.
- B. The Owner's failure to exercise its right to reject the Contractor's Means and Methods of Construction shall not relieve the Contractor of its obligation to complete the Work; the Owner's exercise of its right to reject the Contractor's Means and Methods of Construction shall not create a Contractor's or Subcontractor's cause of action for damages against the Owner.

Section 5.03 - Contractor's Title to Materials

- A. No materials for the Work shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest is retained by any other party. The Contractor warrants that the Contractor has full, good, and clear title to all materials used by the Contractor in the Work, or resold to the Owner pursuant to the Contract Documents free from all liens, claims or encumbrances.
- B. For all materials and equipment to be stored at a location other than the Site prior to execution of an agreement with the Owner for materials stored off-site pursuant to General Conditions Section 8.01 G, the Contractor shall provide the Owner with written notice of the location, security, environmental protections and the materials or equipment to be stored at that location at least fifteen (15) calendar days before such storage begins. Such notice does not obligate the Owner to pay for such stored material or equipment. Payment for stored material or equipment can be made only when the requirements for such payment in General Conditions Article 8 - Payment and elsewhere in the Contract have been met.
- C. All materials, equipment and articles which become the property of the Owner shall be new unless specifically stated otherwise.

Section 5.04 - Comparable Products ("Or Equal" Clause)

- A. Whenever a material, article or piece of equipment is identified on the Drawings or in the Specifications by reference to manufacturers' or vendors' names, trade names, catalogue number, or make, said identification is intended to establish a standard. Any material, article or equipment of other manufacturers and vendors which performs satisfactorily the duties imposed by the design intent may be considered equally acceptable provided that, in the opinion of the Design Professional, the material, article, or equipment so proposed is of equal quality, substance and function and the Contractor shall not Provide, Furnish or Install any said proposed material, article, or equipment without the prior

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written approval of the Design Professional. The burden of proof and all costs related thereto concerning the "or equal" nature of the substitute item, whether approved or disapproved, shall be borne by the Contractor.

- B. Where the Design Professional, pursuant to the provisions of this General Conditions Section 5.04, approves in writing a product proposed by the Contractor and said proposed product requires a revision of the Work covered by this Contract, or the work covered by other contracts, all changes in the work of all contracts, revision or redesign, and all new Drawings and details required therefore shall be provided by the Contractor at its cost and shall be subject to the approval of the Design Professional.
- C. No substitution which may result in a delay to the Project will be permitted without the prior written approval of the Owner.

Section 5.05 - Quality, Quantity and Labeling

- A. The Contractor shall Furnish materials and equipment of the quality and quantity specified in the Contract. Any excess materials purchased per the Contract are the property of the Owner.
- B. When materials are specified to conform to any standard, the materials delivered to the Site shall bear manufacturer's labels stating that the materials meet said standards. Contractor's quality control plan required by paragraph D of this General Conditions Section 5.05 shall include measures undertaken by the Contractor to prevent the use of materials with counterfeit labels or other counterfeit indications of meeting a standard.
- C. The above requirements shall not restrict or affect the Owner's right to test materials as provided in the Contract.
- D. The Contractor shall develop and implement quality control plans to assure itself and the Owner that all Work performed by the Contractor and its Subcontractors complies fully with all Contract requirements. The Contractor shall submit the plans to the Owner upon request as required by the Contract. See the Submittals Section of the General Requirements for further details. The Contractor's quality control plans shall be independent of any testing or inspection performed by or on behalf of the Owner.

Section 5.06 - Tax Exemption

- A. The Owner is exempt from payment of federal, state, and local taxes; sales and compensating use taxes of the State of New York and of cities and counties on all materials and supplies incorporated into the completed Work. These taxes are not to be included in bids. This exception does not apply to tools, machinery, equipment or other property leased by or to the Contractor or a Subcontractor, or to supplies and materials which, even though they are consumed, are not incorporated in to the completed Work, and the Contractor and Subcontractors shall be responsible for and pay any and all applicable taxes, including sales and compensating use taxes, on said leased tools, machinery, equipment or other property and upon all said unincorporated supplies and materials.
- B. The Contractor and Subcontractors shall obtain any and all necessary certificates or other documentation from the appropriate governmental agency or agencies, and use said certificates or other documentation as required by law, rule, or regulation.

ARTICLE 6 -- SUBCONTRACTS

Section 6.01 - Subcontracting

- A. The Contractor may utilize the services of Subcontractors, subject to the limits prescribed in the Information for Bidders Section 7.0 – Approval of Subcontractors/Subcontract Limits. Exceeding stated limits, without prior written approval by the Owner, may be cause for Contract termination.
- B. The Contractor shall submit to the Owner the name of each proposed Subcontractor as required by the Contract. The Owner reserves the right to disapprove any proposed Subcontractor and such disapproval shall not result in any additional cost to the Owner. If requested by the Owner, the Contractor shall provide copies of any and all Subcontracts and purchase order agreements related to the Work, which must be in written form. The Contractor shall require each Subcontractor to provide the Owner, upon the Owner's request, with a copy of each of the Subcontractor's subcontracts and purchase order agreements related to the Work.
- C. The Contractor's use of Subcontractors shall not diminish the Contractor's obligation to complete the Work. The Contractor shall control and coordinate the Work of Subcontractors and be fully responsible for the acts and omissions of Subcontractors, and of persons either directly or indirectly employed by Subcontractors. The Contractor shall be responsible for all guarantees and warranties provided by Subcontractors.
- D. The Contractor shall be responsible for requiring each Subcontractor, to extent of the Work to be performed by such Subcontractor, to be bound to the Contractor by all the terms, conditions, and requirements of the Contract Documents, and to assume towards the Contractor all the obligations and responsibilities which the Contractor, by the Contract Documents, assumes toward the Owner. The Contractor shall cause each Subcontractor to receive and review the provisions of the Contract Documents applicable to the Subcontractor, including but not limited to a copy of the Payment Bond for this Contract. Upon request of the Owner, the Contractor shall provide written proof satisfactory to the Owner that each Subcontractor has received and reviewed the provisions of the Contract Documents applicable to such Subcontractor, including but not limited to, a copy of the Payment Bond for this Contract.
- E. The Contractor shall ensure that each Subcontractor's duties to procure insurance for, and to defend, indemnify and hold harmless the Owner and Client, are, to the fullest extent permitted by law, at least the same as the Contractor's duties to procure insurance for, and to defend, indemnify and hold harmless the Owner and Client.
- F. To the fullest extent permitted by law and independent of any duty to indemnify and hold harmless, the Contractor shall require each Subcontractor, to the fullest extent permitted by law, to defend the Owner and Client against claims by third persons for wrongful death, bodily injuries and property damage, direct or consequential, loss or damage of any kind whatsoever arising out of or alleged to arise out of or as a result of or in connection with the performance of the Work, whether actually caused by or resulting from the performance of the Work, or out of or in connection with the Subcontractor's operations or presence at, or in the vicinity of, the Site.
- G. To the fullest extent permitted by law, the Contractor shall require each Subcontractor, to the fullest extent permitted by law, to indemnify and hold harmless the Owner and Client against claims by third persons for wrongful death, bodily injuries and property damage, direct or consequential, loss or damage of any kind whatsoever arising out of or alleged to arise out of or as a result of or in connection with the performance of the Work, whether actually caused by or resulting from the performance of the

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Work, or out of or in connection with the Subcontractor's operations or presence at, or in the vicinity of, the Site.

- H. The Contractor shall require each Subcontractor, in addition to the Subcontractor's other obligations, to pay the costs of the Owner and Client, including but not limited to, attorneys' and consultants' fees, expenses and court costs, to commence and prosecute a court action against the Subcontractor to enforce one or more of the Subcontractor's obligations under General Conditions Section 6.01 E, F or G or against an insurance company to obtain coverage under an insurance policy which the Subcontractor represented would provide coverage to the Owner or Client.
- I. Nothing contained in the Contract or any subcontract shall create any contractual relationship between any Subcontractor and the Owner except the requirements in General Conditions Sections 15.03 and 15.04 for each Subcontractor to procure insurance policies on which the Owner or the Owner and Client are insureds, the obligations of each Subcontractor pursuant to General Conditions Section 6.01 E, F and G to defend, indemnify and hold harmless, to the fullest extent permitted by law, the Owner and Client against claims by third persons for wrongful death, bodily injuries and property damage, direct or consequential, loss or damage of any kind whatsoever and the obligation of each Subcontractor pursuant to General Conditions Section 6.01 H

In selecting a Subcontractor, the Contractor shall consider whether the proposed Subcontractor appears on any list of entities debarred or suspended from doing business with a government entity, including the current list of companies or individuals that have been declared ineligible to receive Federal contracts published by the System for Award Management. The Contractor shall not subcontract with any entity on the List of Employers Ineligible To Bid On Or Be Awarded Any Public Contract, published by the NYS Department of Labor Bureau of Public Work. The Contractor shall not subcontract with any entity on the debarment list published by the NYS Workers' Compensation Board pursuant to Section 141-b of the NYS Workers' Compensation Law. The Contractor shall not subcontract with any entity on the list of Non-Responsible Entities maintained by the NYS Office of General Services pursuant to Executive Order No. 192.

In selecting a Subcontractor, the Contractor shall also consider whether the proposed Subcontractor has legal authority to do business in New York State and possesses the integrity, experience, qualifications, and organizational and financial capacity to perform Work on the Project.

Prior to award of a Contract, the Contractor shall require any Subcontractor, with a subcontract value of two million dollars (\$2,000,000) or greater, to submit to the Owner a certified NYS Vendor Responsibility Questionnaire For Profit Construction (CCA-2) for review. At any time during the term of the Contract, the Owner may request, and the Contractor or Subcontractor shall provide, a NYS Vendor Responsibility Questionnaire For Profit Construction (CCA-2) for any other Subcontractor performing Work on the Project for review. Additionally, the Owner or Contractor may require a Subcontractor to update, recertify and resubmit a previously submitted NYS Vendor Responsibility Questionnaire For Profit Construction (CCA-2) to the Owner upon request. Refer to General Conditions Article 19 – Executive Order No. 125.

- J. Prior to or after award of the Contract, if requested by the Owner, the Contractor shall require a Subcontractor to submit a NYS Vendor Responsibility Questionnaire For Profit Construction (CCA-2) and a Dormitory Authority DASNY Vendor Questionnaire. If requested by the Owner, the Contractor shall require a Subcontractor to update a NYS Vendor Responsibility Questionnaire For Profit

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Construction (CCA-2) and a Dormitory Authority DASNY Vendor Questionnaire previously submitted to the Owner.

- K. The Contractor shall submit a NYS Vendor Responsibility Questionnaire For Profit Construction (CCA-2) and a Dormitory Authority DASNY Vendor Questionnaire to the Owner for each Subcontractor proposed for the Work with a subcontract value of two million dollars (\$2,000,000) or greater. Refer to General Conditions Article 19 – Executive Order No. 125.
- L. After execution of the Contract, the Owner will provide to the Contractor copies of the Owner’s Code of Business Ethics Certification form. The Contractor is required to have each Subcontractor, at all tiers, complete the form prior to the Subcontractor beginning work. The completed forms are to be filed by the Contractor with the Owner. A failure to comply with this requirement may result in the Subcontractor(s) being removed from the Project Site.
- M. Compliance with General Municipal Law:
 - 1. New York General Municipal Law § 101 (5) requires each bidder on a public work contract, where the preparation of separate specifications is not required by New York General Municipal Law §101 (1), to submit with its bid a separate sealed list that names each subcontractor that the bidder will use to perform work on the contract, and the agreed-upon amount to be paid to each, for: (a) plumbing and gas fitting, (b) steam heating, hot water heating, ventilating and air conditioning apparatus and (c) electric wiring and standard illuminating fixtures. After the low bid is announced, the sealed list of subcontractors submitted with such low bid is opened and the names of such subcontractors is announced, and thereafter any change of subcontractor or agreed-upon amount to be paid to each shall require the approval of Owner, upon a showing presented to the public owner of legitimate construction need for such change, which shall be open to public inspection. Legitimate construction need shall be determined by the Owner in Owner’s sole discretion. Any attempt by Contractor to use or manipulate this process to obtain lower bid amounts by subcontractors than those listed on the sealed bid may result in a finding of non-responsibility of the Contractor.
 - 2. On a project where the preparation of separate specifications is not required by New York General Municipal Law §101 (1), to the extent that Contractor seeks change of subcontractor or the agreed-upon amount to be paid to each for (a) plumbing and gas fitting, (b) steam heating, hot water heating, ventilating and air conditioning apparatus, or (c) electric wiring and standard illuminating fixtures, the Contractor acknowledges and agrees that it shall seek the approval of Owner as set forth in the General Municipal Law.

ARTICLE 7 -- CHANGES IN THE WORK

Section 7.01 - Changes

- A. Without invalidating the Contract, the Owner, in writing, may order changes in the Work by altering, adding to, or deducting from the Work of the Contract.
 - 1. No change in the Work is effective unless the Owner executes and delivers a Change Order to the Contractor. No payment for a change in the Work is due the Contractor unless and until a Change Order is executed and delivered by the Owner to the Contractor and the Contractor has performed the change in the Work. No alteration to the standard language of the Owner’s Change Order

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form shall be accepted. If the Contractor requests an adjustment to the Substantial Completion date for a change in the Work and the Owner agrees, an increase or decrease to the duration, in calendar days, shall be included in the Change Order.

2. Notwithstanding subparagraph 1, the Owner, at its discretion, may execute and deliver to the Contractor a Notice to Proceed directing the Contractor to proceed immediately and diligently with the change in the Work described in the Notice to Proceed. The Owner, upon execution and delivery of the Notice to Proceed to the Contractor, is obligated to adjust the Contract for the change in the Work described in the Notice to Proceed; the extent of the adjustment(s) will be determined using the method of General Conditions Section 7.01 B specified in the Notice to Proceed, this General Conditions Article and negotiations with the Contractor; the adjustment(s) will be stated in the Change Order to be executed and delivered by the Owner to the Contractor. The Contractor, upon receipt of the Notice to Proceed, is obligated to proceed immediately and diligently with the change in the Work described in the Notice to Proceed while the adjustment(s) are determined. The Notice to Proceed shall be processed through the Project Management Program prior to execution and delivery by the Owner to the Contractor. No alteration to the standard language of the Owner's Notice to Proceed form shall be accepted. No payment for the change in the Work is due the Contractor until the Change Order is executed and delivered by the Owner to the Contractor and the Contractor has performed the change in the Work. The Owner determines the duration between execution and delivery of the Notice to Proceed and execution and delivery of the Change Order.
 3. Contractor's failure to proceed immediately and diligently with any Notice to Proceed or Change Order executed and delivered by the Owner to the Contractor, unless the Owner in writing directs otherwise, shall be a material breach of the Contract.
 4. If, after the Owner has executed and delivered a Notice to Proceed to the Contractor for a change in the Work, the Owner and the Contractor cannot agree on the adjustment(s) to the Contract for the change in the Work described in such Notice to Proceed, the Owner shall execute and deliver a Forced Change Order to the Contractor in an amount and with such other provisions that the Owner considers to be fair and reasonable for the change in the Work described in such Notice to Proceed and Forced Change Order. If the Contractor does not accept the Forced Change Order, the Contractor shall strictly comply with the requirements of General Conditions Section 7.01 D.
 5. No Change Order is executed by the Owner unless and until the Change Order is, reviewed and accepted by the Owner, and properly executed by an authorized representative of the Owner with appropriate approval authority in accordance with the Owner's internal procedures.
- B. The Contract amount may be increased or decreased only by a Change Order and the amount of the adjustment is determined by one or more of the following methods, as determined by the Owner:
1. By applying the applicable unit price or prices contained in the Contract Documents, or negotiated pursuant to the provisions of this General Conditions Article. Unit prices are limited to the quantities specified in the Contract Documents or prior Change Order. Unit prices for quantities greater than specified in the Contract Documents or prior Change Order may, in the Owner's sole and exclusive discretion, be subject to negotiations between the Owner and Contractor.
 2. By estimating the fair and reasonable cost of the change in the Work or deleted Work.
 3. By determining the actual cost of the change in the Work and considering the following:

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- a. Labor, including all wages and required wage supplements, paid to employees below the rank of superintendent directly employed at the Site for the change in the Work. Minimum wages are the prevailing rate of wages defined by the NYS Department of Labor. Actual wages in excess, paid by the Contractor, may be considered by the Owner.
 - b. Premiums or taxes paid by the Contractor for worker's compensation insurance, unemployment insurance, FICA tax and other payroll taxes as required by law, net of actual and anticipated refunds and rebates.
 - c. Materials associated with the change in the Work.
 - d. Equipment, excluding hand tools, which in the judgment of the Owner, would have been or will be employed in the Work. The Owner may employ the use of rental rates it deems most appropriate from the information in the "Equipment Watch Retail Rental and Equipment Watch Cost Recovery" databases. In no case will the equipment rental cost exceed the purchase price of the equipment. Self-owned equipment is defined to include equipment rented from Contractor-controlled or affiliated companies. It is the duty of the Contractor to utilize either rented or self-owned equipment that is of a nature and size appropriate for the Work to be performed. The Owner reserves the right to determine reasonable and appropriate equipment sizing, and at the Owner's discretion, it may adjust the costs allowed to reflect a smaller or less elaborate piece of equipment more suitable for performance of the change in the Work. The Owner, in its sole and exclusive discretion, will determine if equipment is rented from a company controlled by or affiliated with the Contractor.
 - e. To determine the daily and hourly rate of self-owned equipment, the monthly rate shall be divided by twenty-two (22) to establish a daily rate; or by one hundred and seventy-six (176) to establish the hourly rate. The operating cost listed in the "Equipment Watch Retail Rental and Equipment Watch Cost Recovery" databases would be added to this rate to establish the billable rate.
- C. For each change in the Work, the Contractor shall submit to the Owner, within the time period provided by the Owner, the following information:
1. A detailed proposal of labor, material, and equipment costs for the change in the Work. The Contractor and Subcontractors shall use the Owner's Contractor and Subcontractor Change Order Proposal Forms, which are available directly from the Owner or from the Dormitory Authority's website.
 2. The Contractor's and Subcontractor's proposal forms shall include the following signed statement, which shall be notarized if so requested by the Owner:

"I hereby certify that the value for the labor, material and equipment that comprise the proposal, represents the value of said work, material and equipment for the work performed or to be performed, pursuant to the Contract between the undersigned and the Dormitory Authority and that no overhead or profit is included in the proposal for a change to the Work performed by any Subcontractor or for any major equipment or material supplier that is a subsidiary or an affiliate of this firm."
 3. Signed Labor Rate Worksheet to determine hourly rates for each classification of worker associated with the change in the Work. The Contractor shall use the Owner's Labor Rate Worksheets, which are available directly from the Owner or from the Dormitory Authority's website

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<http://www.dasny.org>. Only hourly rates for each classification of worker approved by the Owner can be used to determine the adjustment of the Contract amount for a Change Order. Only an authorized officer of Owner or authorized employee of Owner's Project Controls Unit can approve Labor Rate Worksheets.

4. Narrative and fragnet schedule, which describes the impact on the Project CPM schedule in calendar days associated with the change in the Work if the Contractor requests a change in the date to achieve Substantial Completion. Owner, in its sole and exclusive discretion, may waive, in writing, this requirement for requests to change the date to achieve Substantial Completion made prior to the Owner's approval of the initial Project CPM schedule. Owner's waiver of this requirement can be made only by an authorized officer of Owner or authorized employee of Owner's Project Controls Unit. If the Contractor does not submit a narrative and fragnet schedule, the Contractor acknowledges that the Change Order does not require a change in the date to achieve Substantial Completion.
 5. The Contractor agrees to provide, at the Owner's request, any additional documentation to further verify labor, material, equipment, and any other cost sought for a change in the Work.
 6. The Contractor agrees to provide, at the Owner's request, written justification for a change in the Work.
- D. Each Contractor's written change proposal shall be reviewed by the Owner consistent with the requirements of the Contract.
1. Owner and Contractor shall negotiate in good faith to agree on the adjustment(s) to the Contract for each change in the Work. The Owner is not required to respond to any change proposal submitted by the Contractor until the Contractor submits a change proposal that complies with the Contract Documents. Negotiations under this General Conditions Article shall not impact the Project schedule. The Contractor's proposal for a change in the Work is approved and accepted by the Owner only by the Owner's execution and delivery of a Change Order to the Contractor. See General Conditions Section 7.01 A. 5 for the requirements of execution and delivery.
 2. If the Owner has executed and delivered a Notice to Proceed to the Contractor for a change in the Work and the Owner and the Contractor cannot agree on the adjustment(s) to the Contract for the change in the Work described in such Notice to Proceed, the Owner shall execute and deliver a Forced Change Order to the Contractor in an amount and with such other provisions that the Owner considers to be fair and reasonable for the change in the Work described in such Notice to Proceed and Forced Change Order. If the Contractor does not accept the Forced Change Order, the Contractor shall file a notice of Claim in strict accordance with General Conditions Section 10.03 and comply strictly with all requirements of General Conditions Sections 10.03, 10.05 and 10.06. The Contractor's failure to comply with any or all of General Conditions Sections 10.03, 10.05 and 10.06 shall be deemed to be:
 - a. a conclusive and binding determination on the part of the Contractor to accept the Forced Change Order as final, binding and conclusive on the Contractor; and
 - b. a waiver by the Contractor of all Claims for additional compensation or damages as a result of the Forced Change Order.
- E. Any information representing the value of the Work performed, materials supplied and equipment utilized contained in the Contractor's and Subcontractor's proposals that constitutes False

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Representation may subject the Contractor or Subcontractor to criminal charges, including NYS Penal Law Sections 175.35 (Offering a False Instrument for Filing) and 210.40 (False Statement) and/or Title 18 U.S.C. Sections 1001 (Fraudulent and False Statements) and/or termination of the Contract for cause and civil prosecution under Article XIII of the NYS State Finance Law – the New York False Claims Act.

- F. The compensation specified in the Change Order executed by the Owner and delivered to the Contractor includes full compensation for the changes in the Work covered thereby, and the Contractor waives all rights to any other compensation, damages, or expenses for the changes in the Work described therein.
- G. The Contractor shall furnish satisfactory bills, certified payrolls, vouchers, and other cost documentation covering all items of cost and when requested by the Owner shall give the Owner access to all accounts and records relating thereto, including records of Subcontractors and material suppliers.
- H. At Substantial Completion, the Owner may address increased Project-specific bonding, liability insurance and builder's risk insurance costs which may have resulted from changes in the Work. The Contractor shall provide satisfactory proof of and paid invoices, including cancelled checks or bank statements showing payment, for such increased costs. The Owner will not pay overhead and profit on any increased costs for bonding, liability insurance or builder's risk insurance.
- I. General Conditions Section 10.01 applies when the Owner determines that a decision, response, direction, action, omission, or condition does not require performance of Extra Work.

Section 7.02 - Overhead and Profit

- A. See Example A for changes in the Work performed directly by the Contractor, whether a base cost is arrived at by estimated cost or actual cost method; add to base cost a sum equal to twenty percent. See Exceptions - Paragraphs "D" and "E".

Example A:

Contractor base cost	\$1,000
20% overhead and profit	<u>200</u>
Total	\$1,200

- B. See Example B for changes in the Work performed by a Subcontractor under contract with the Contractor, where estimated or actual cost is Ten Thousand Dollars (\$10,000.00) or less; add to the base cost a sum equal to twenty percent of cost, for the benefit of the Subcontractor. For the benefit of the Contractor; add an additional sum equal to ten percent of the Subcontractor's base cost.

Example B:

Subcontractor base cost	\$1,000
20% Subcontractor overhead and profit	<u>200</u>
Subcontractor Total	\$1,200
10% Contractor overhead and profit on base cost	<u>100</u>
Total	\$1,300

- C. See Example C for changes in the Work performed by a Subcontractor, under contract with the Contractor, which exceeds a base cost of Ten Thousand Dollars (\$10,000) in estimated or actual cost;

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add to the base cost a sum equal to twenty percent of cost for the benefit of the Subcontractor. For the benefit of the Contractor; add an additional sum equal to ten percent of the first Ten Thousand Dollars (\$10,000) of the Subcontractor's base cost, plus five percent of the next Ninety Thousand Dollars (\$90,000) of the Subcontractor's base cost, plus three percent of any sum in excess of One Hundred Thousand Dollars (\$100,000) of the Subcontractor's base cost.

Example C:

Subcontractor base cost	\$200,000
20% Subcontractor overhead and profit	<u>40,000</u>
Subcontractor Total	\$240,000
10% Contractor overhead and profit on first \$10,000 base cost	1,000
5% on next \$90,000 base cost	4,500
3% on base cost over \$100,000	<u>3,000</u>
Total	\$248,500

- D. See Example D for overhead and profit on major equipment such as: switchgear, transformers, air handling units, boilers, etc. For extra equipment purchases by the Contractor or Subcontractors which exceeds a base cost of Ten Thousand dollars (\$10,000) in estimated or actual cost; add to the base cost for the benefit of the Contractor a sum equal to ten percent of the first Ten Thousand dollars (\$10,000) of the vendor's base cost plus five percent of the next Ninety Thousand dollars (\$90,000) of the vendor's base cost, plus three percent of any sum in excess of One Hundred Thousand dollars (\$100,000) of the vendor's base cost. If the equipment is supplied by the Subcontractor, the Contractor is entitled to a maximum of ten (10) percent of the first Ten Thousand dollars (\$10,000) of the base cost.

Example D:

Vendor base cost	\$200,000
10% Contractor or Subcontractor overhead and profit on first \$10,000 base cost	1,000
5% on next \$90,000 base cost	4,500
3% on base cost over \$100,000	<u>3,000</u>
Contractor or Subcontractor Total	\$208,500
10% Contractor overhead and profit on first \$10,000 base cost when equipment is supplied by the Subcontractor, no other mark-up allowed	<u>1,000</u>
Total	\$209,500

- E. See Example E for overhead and profit on a material only Change Order. For increased material purchases by the Contractor or Subcontractors; add to the base cost for the benefit of the Contractor a sum equal to ten percent of the first Ten Thousand dollars (\$10,000) of the supplier's cost plus five percent of the next Ninety Thousand dollars (\$90,000) of the supplier's cost, plus three percent of any sum in excess of One Hundred Thousand dollars (\$100,000) of the supplier's cost. If the material is supplied by the Subcontractor, the Contractor is entitled to a maximum of ten (10) percent of the first Ten Thousand dollars (\$10,000) of the base cost.

Example E:

Material cost (net difference between original contract and revised)	\$200,000
10% Contractor or Subcontractor overhead and profit on first \$10,000 base cost	1,000
5% on next \$90,000 base cost	4,500
3% on base cost over \$100,000	<u>3,000</u>
Contractor or Subcontractor Total	\$208,500

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10% Contractor overhead and profit on first \$10,000 base cost when material is supplied by the Subcontractor, no other mark-up allowed	<u>1,000</u>
Total	\$209,500

- F. Other than the overhead and profit described in General Conditions Section 7.02A, no further overhead and profit will be allowed for changes to the Work performed by a Subcontractor under Subcontract with the Contactor or for major equipment or material supplier determined to be an affiliate of or controlled by the Contractor. An affiliate is considered any firm or entity in which the Contractor or any individual listed on the Contractor's NYS Vendor Responsibility Questionnaire either owns 5% or more of the shares of, or is one of the five largest shareholders, a director, officer, member, partner or proprietor of said Subcontractor, major equipment or material supplier; a controlled firm is any firm or entity which, in the opinion of the Owner, is controlled by the Contractor or any individual listed on the Contractor's NYS Vendor Responsibility Questionnaire.
1. The Owner, in its sole and exclusive discretion, will determine if a firm or entity is an affiliate of or controlled by the Contractor.
- G. No overhead and profit shall be paid for changes in the Work performed by a Subcontractor not under Subcontract with the Contractor. No overhead and profit shall be paid on the premium portion of overtime pay. Where the changes in the Work involve both an increase and a reduction in similar or related Work, the overhead and profit allowance shall be applied only to the cost of the increase that exceeds the cost of the reduction.
- H. The Owner, in its sole and exclusive discretion, shall require any Contractor or Subcontractor that is issued a Contract pursuant to pricing from a New York State Office (NYS) of General Services (OGS) Centralized Contract held by said Contractor or Subcontractor to provide an itemized change proposal as per the rates for non-trade service labor, equipment, and materials established within aforementioned NYS OGS Centralized Contract. Rates are considered inclusive of overhead and profit and no additional markup will be approved. All other provisions of Article 7 – Changes to the Work shall apply.

Section 7.03 - Deduct Change Order

The amount of credit to be allowed by the Contractor to the Owner for a deletion or change which results in a decrease in the Contract amount shall be as determined by the Owner. The credit shall include the overhead and profit allocable to the deleted or changed Work unless the Owner, in its sole and exclusive discretion, determines otherwise.

ARTICLE 8 -- PAYMENT

Section 8.01 - Provision for Payment

- A. The Contractor shall complete and submit to the Owner for review and written approval, the detailed Schedule of Values prior to the Contractor's first billing request. It is understood, and the Contractor acknowledges, that the Schedule of Values is an administrative tool to illustrate a format and minimum level of detail required for billing requests, and shall not be considered as delineating the Contractor's scope of Work. The Owner may require the Contractor to revise its Schedule of Values at no cost to the Owner and to provide a greater level of detail. Further, the Owner reserves the right to accept only those cost distributions which, in the Owner's opinion, are reasonable, equitably balanced and correspond to the estimated quantities in or for the Contract Documents. Owner's approval of the

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Schedule of Values can be provided only by an authorized officer of Owner or authorized employee of Owner's Project Controls Unit.

The Contractor, at its own expense, shall take all actions necessary to fully comply with the requirements of the Statewide Utilization Management Plan ("SUMP") of the NYS Contract System. Contractor shall require all Subcontractors to comply with the requirements of SUMP and the NYS Contract System. These requirements include, but are not limited to, the Contractor's timely payment to all Subcontractors and timely input in to the NYS Contract System of information, including but not limited to, information regarding Subcontractor payments and compliance with Contract requirements, including but not limited to Contract requirements for participation of Minority and Women Owned Business Enterprises in the performance of the Contract.

- B. The Owner shall not approve any billing request until:
 - 1. the Contractor is in full compliance with SUMP and the NYS Contract System; and
 - 2. the Owner provides approval of the Schedule of Values.
- C. To request a partial or full payment for partial or full performance of the Contract, Contractor shall obtain from the Owner a Contractor's billing request. The Contractor shall complete the billing request by entering in each line item thereof the percentage of completion of that item as of the end of the preceding business month or billing cycle and deliver the completed billing request to the Owner. The Owner shall review the billing request and make any changes which the Owner, in its sole and exclusive discretion, determines to be necessary so that the percentage of completion for each line item in the billing request accurately reflects the Contractor's performance of the Contract as of the end of the preceding business month. The Owner then delivers the Owner's adjusted version of the billing request to the Contractor for execution by the Contractor of the certifications of the Contractor required for partial or full payment for partial or full performance of the Contract. The Contractor delivers the executed billing request to the Owner. Any partial payment request under the Contract shall be at least thirty (30) calendar days after the preceding partial payment request under the Contract, unless the Owner in writing signed by an authorized officer permits more frequent requests.
- D. The Owner may make a partial payment to the Contractor for partial performance of the Contract on the basis of an Application for Payment for the Work performed during the preceding business month. The Owner shall retain five percent (5%) of the amount of each said Application for Payment. The Owner may make full payment to the Contractor for full performance of the Contract on the basis of an Application for Payment. Each Application for Payment shall be accompanied by all documentation required by law, including but not limited to, certified payrolls and all documentation required by the Owner, including but not limited to documentation to establish compliance with NYS Labor Law and NYS Lien Law. The Owner may require any documentation the Owner determines is necessary or useful to establish that the Contractor's performance of the Work complies with the requirements of the Contract and applicable law.
- E. Any partial payment made shall not be construed as a waiver of the right of the Owner to require the fulfillment of all the terms of the Contract. No payment, either partial or full, by the Owner to the Contractor shall waive or excuse any failure by the Contractor to comply fully with the Contract Documents. No payment will be made for Work not performed.
- F. In preparing the Contractor's billing request, material delivered to the Site and properly stored and secured at the Site and material approved to be stored off-site under such conditions as the Owner shall

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prescribe in accordance with paragraph G of this General Conditions Section 8.01, may be taken into consideration. All costs related to the storage of materials are the sole responsibility of the Contractor.

- G. The Owner will provide an agreement for materials stored off-site and specific forms that the Contractor shall complete, execute, and submit with any billing request for such material. Required information includes, but is not limited to: a general description of the material; a detailed list of the materials; a pre-approved storage area; segregation and identification of the material; insurance covering full value against all risks of loss or damage, with non-cancellation provision; immediate replacement agreement in event of loss or damage; agreement to pay the expense of all inspections of the material; ownership provisions; delivery guarantee; project completion statement; bill of sale, releases of liens, and inventory. The Owner, in its sole and exclusive discretion, may require the Contractor to certify in the agreement for materials stored off-site that the materials comply with one or more requirements of the Contract or to provide documentary proof acceptable to the Owner that the materials comply with one or more requirements of the Contract.
- H. All monthly billing requests submitted by the Contractor shall only be in the form and manner approved by the Owner. The Contractor shall furnish such affidavits, vouchers, receipts, and other documentation as to delivery and payment for materials, payment of Subcontractors, and payment of prevailing rate of wage and supplements required by NYS Labor Law as the Owner requires to substantiate each and every billing request. Contractor shall furnish any other documentation required by Owner to establish compliance with one or more requirements of the Contract or any statute or regulation, including but not limited to the certification required by General Conditions Section 16.02 and proof of compliance with NYS Labor Law Section 220-h (See General Conditions Section 16.03 H).
- I. All payments received by the Contractor under or in connection with the Contract are trust funds under Article 3-A of the NYS Lien Law and shall be applied by the Contractor in accordance with such law.

Section 8.02 - Substantial Completion and Reduction of Retainage

- A. After the Owner has determined Substantial Completion of the Work, as evidenced by the executed Notice of Substantial Completion, the Owner shall pay to the Contractor the balance due the Contractor pursuant to the Contract less:
 - 1. Two (2) times the value of any remaining items of Work to be completed or corrected as determined in accordance with paragraph B. of this General Conditions Section 8.02.
 - 2. An amount necessary to satisfy any and all claims, liens, or judgments by the Owner or third parties against the Contractor.
- B. After the Owner has determined Substantial Completion of the Work, as evidenced by the executed Notice of Substantial Completion, the Contractor shall submit to the Owner, for Owner's written approval, a detailed estimate of the value of the known remaining items of Work as set forth by the Owner and a schedule for achieving Physical Completion and Contract Completion and Acceptance of the Work. The Owner shall review that estimate and schedule and:
 - 1. Direct the Contractor to revise and resubmit the estimate, the schedule or both; or
 - 2. Approve the estimate and schedule.

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The Owner, at its discretion, may value the items of Work to be completed or corrected assuming such items will be completed or corrected by an entity other than the Contractor and may include the cost of obtaining regulatory or other third-party approval of one or more items of Work.

- C. As the remaining items of Work are completed and accepted by the Owner, the Owner shall pay the appropriate amount pursuant to a duly completed and submitted Application for Payment.
- D. The list of remaining Work items may be expanded to include additional items of corrective or completion Work until Contract Completion and Acceptance by the Owner. Appropriate payments may be withheld to cover the value of these items pursuant to this General Conditions Section 8.02.
- E. The Contractor may request from the Owner a reduction of retainage when a phase of the Work is accepted by the Owner but Owner is not obligated to grant such request.
- F. The Application for Payment for the first payment of reduction of retainage shall be accompanied by a release, by the Contractor to the Owner, in the form set forth at Exhibit "A" to the General Conditions for Construction. As set forth in such release, any Claims not specifically excepted and reserved by the Contractor per the release form will be released and forever discharged. Owner's acceptance of a release containing Claims specified by and reserved to the Contractor does not waive any rights of the Owner arising under the Contract or any other source with respect to such Claims. By executing this Contract, Contractor acknowledges and agrees that it has reviewed the release in the form set forth at Exhibit "[X]" to the Contract Documents. Submission of the duly completed release set forth at Exhibit "[X]" to the Contract Documents along with the Application for Payment for the first payment of reduction of retainage is a condition precedent to the release of any retainage by the Owner. The requirement of a release may be waived only in writing and only by the Owner's Office of Counsel. No payment, final or otherwise, shall operate to release the Contractor or the Contractor's sureties from any obligations under this Contract or the Performance or Payment bonds.

Section 8.03 - Release and Consent of Surety

Notwithstanding any other provision of the Contract Documents to the contrary, reduction of retainage and/or the final Application for Payment shall not become due until the Contractor submits to the Owner a General Release from the Contractor and, if the Owner requests, a Consent of Surety to said payment in form and content acceptable to the Owner. No payment, final or otherwise, shall operate to release the Contractor or the Contractor's sureties from any obligations under this Contract or the Performance or Payment bonds.

Section 8.04 - Liens

- A. Upon the Owner's receipt of a notice of public improvement lien, all, or a portion, of the amounts due in the current and subsequent payments due the Contractor shall be withheld until a sum which shall be one and one-half (1 1/2) times the amount stated to be due in the notice of public improvement lien shall have been withheld from payments due the Contractor. This sum shall be withheld until the lien is discharged. The Contractor shall promptly discharge any notice of public improvement lien by filing a bond pursuant to NYS Lien Law Section 21, subdivision 5. If any Subcontractor should file a notice of lien against the property upon which the Project is located, such lien is void and Contractor, at its expense shall obtain and file an order of the Supreme Court of the State of New York cancelling such lien. If Contractor shall fail to obtain such order or if Contractor shall file a notice of lien against the property upon which the Project is located, the Owner may obtain an order of the Supreme Court of the

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State of New York cancelling such lien and deduct the attorney's fees and other costs incurred in obtaining and filing such order from any amount due the Contractor.

- B. Upon receipt of any other lien, levy, notice to withhold, restraining notice, court or administrative order or any other instrument allowed by law and directing the Owner to withhold payments due Contractor, the Owner will withhold the sum which Owner determines is necessary to withhold to comply with the applicable law. This sum shall be withheld until the instrument is, in the Owner's sole and exclusive discretion, appropriately satisfied or discharged.

Section 8.05 - Withholding of Payments

- A. The Owner may withhold from the Contractor any part of any payment as may, in the judgment of the Owner, be necessary:
 - 1. To ensure payment of just claims of any natural person or entity supplying labor, materials, or equipment for the Work.
 - 2. To protect the Owner from loss due to defective Work not remedied.
 - 3. To protect the Owner, Client, or any Consultant from loss due to failure to defend, loss due to injury to persons or damage to the Work or property of Other Contractors, Subcontractors or others caused by the act or neglect of the Contractor or Subcontractors.
 - 4. To ensure payment of fines and penalties, that may be imposed on the Contractor pursuant to the provisions of the Contract.
 - 5. To ensure payment of fines, penalties, or damages that may be imposed on the Contractor pursuant to General Conditions Article 20 - Opportunity Programs.
 - 6. To protect and make whole the Owner from a Contractor's non-compliance to the requirements set forth in General Conditions Article 14 – Protection of Persons and Property and Article 15 – Insurance and Bonds.
 - 7. To protect the Owner and Client from damage caused or claimed to have been caused directly or indirectly by the failure of the Contractor to perform the Work of the Contract in strict accordance with the Contract Documents.
- B. The Owner shall have the right to apply any such amounts so withheld in such a manner as the Owner may deem proper to satisfy said claims, fines, and penalties, or to secure said protection. Said application of the money shall be deemed payments for the account of the Contractor.

Section 8.06 - Late Payment

Timeliness of payment and any interest to be paid to the Contractor for late payment is governed by Section 2880 of the NYS Public Authorities Law. Timely payment by the Contractor to the Subcontractor is governed by Section 139-f of the NYS State Finance Law which requires payment by the Contractor to the Subcontractor within seven (7) calendar days of receipt of payment from the Owner.

Section 8.07 – False Representations/Information

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- A. False Representations, information, or data submitted on or with Applications for Payment may result in one or more of the following actions:
 - 1. Termination of the Contract for cause;
 - 2. Disapproval of future bids or contracts or subcontracts;
 - 3. Withholding of final payment on the Contract; and
 - 4. Civil and/or criminal prosecution (See General Conditions Sections 7.01 E and 10.03 F).
- B. The provisions of this General Conditions Section 8.07 are solely for the benefit of the Owner, and any action or non-action hereunder by the Owner shall not give rise to any liability on the part of the Owner.

ARTICLE 9 -- TIME OF COMPLETION

Section 9.01 - Substantial Completion

- A. The Contractor shall commence performance of the Work at the time stated in the Notice to Proceed and the Contractor shall achieve Substantial Completion no later than the date for Substantial Completion specified in the Contract. Notwithstanding anything to the contrary, a schedule submitted by the Contractor showing Substantial Completion earlier than that specified in the Contract shall not entitle the Contractor to any additional cost in the event the earlier date is or is not realized unless agreed to by the Owner.
- B. It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that Substantial Completion of the Work on or before the date for Substantial Completion specified in the Contract, is an essential condition of the Contract.
- C. The Contractor agrees that the Work shall be prosecuted regularly, diligently, and cooperatively with Other Contractors at such rate of progress as shall ensure Substantial Completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time to achieve Substantial Completion allowed herein is reasonable.
- D. It is further agreed that time is of the essence for each and every portion of the Work. In any instance in which additional time is allowed for Substantial Completion of the Work, the new date of Substantial Completion established by said extension shall be of the essence. The Contractor shall not be charged with liquidated damages or any excess cost of the Owner or Client if the Owner determines in its sole and exclusive discretion that the Contractor is without fault and that the delay in Substantial Completion of the Work is due:
 - 1. To any preference, priority or allocation order duly issued by the Government of the United States or the State of New York.
 - 2. To an unforeseeable cause beyond the control and without the fault of, or negligence of the Contractor, and approved by the Owner, including, but not limited to, acts of God or of public enemy, acts of the Owner, fires, epidemics, pandemics, quarantine, restrictions, strikes, freight embargoes and unusually severe weather.
 - 3. To any delays of Subcontractors or suppliers occasioned by any of the causes specified in Subsections 1 and 2 of this paragraph provided the Contractor shall, within fifteen (15) calendar

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days from the beginning of any such delay, notify the Owner in writing of the causes of the delay. Notice shall be delivered to the Owner as specified in General Conditions Section 10.03 C.

- E. The date of Substantial Completion may be modified only by a Change Order.
- F. If the Contractor shall neglect, fail, or refuse to achieve Substantial Completion by the date specified, or any proper extension thereof granted by the Owner, the Contractor agrees to pay to the Owner for loss of beneficial use of the Work of the Contract an amount specified in the Contract, not as a penalty, but as liquidated damages, for each and every calendar day thereafter that the Contractor does not achieve Substantial Completion.
- G. If the Contractor shall abandon performance of the Work before achieving Substantial Completion, the Contractor agrees to pay to the Owner for loss of beneficial use of the Work of the Contract an amount specified in the Contract, not as a penalty, but as liquidated damages, for each and every calendar day after both the date of abandonment and the date specified for Substantial Completion that the Work has not achieved Substantial Completion. The obligation of the Contractor to pay liquidated damages as provided in this paragraph shall survive the termination of the Contract pursuant to General Conditions Section 11.01.
- H. If the Owner terminates the Contract before the Contractor achieves Substantial Completion, the Contractor agrees to pay to the Owner for loss of beneficial use of the Work of the Contract an amount specified in the Contract, not as a penalty, but as liquidated damages, for each and every calendar day after both the date of termination of the Contract and the date specified for Substantial Completion that the Work has not achieved Substantial Completion. The obligation of the Contractor to pay liquidated damages as provided in this paragraph shall survive the termination of the Contract pursuant to General Conditions Section 11.01.
- I. Said amount of liquidated damages is agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages which the Owner would sustain for loss of beneficial use of the Work of the Contract in the event of delay in Substantial Completion, abandonment of the Work by the Contractor or termination of the Contract pursuant to General Conditions Section 11.01, and said amount is agreed to be the amount of damages sustained by the Owner and said amount may be retained from time to time by the Owner.
- J. The foregoing liquidated damages are intended to compensate the Owner only for the loss of beneficial use of the Work of the Contract. In addition, the Contractor shall be liable to the Owner and the Client, to the fullest extent permitted by law, for whatever actual damages (other than actual loss of beneficial use) the Owner or Client may incur as a result of any actions or inactions of the Contractor or its Subcontractors including, without limitation, interest expense and carrying costs, liabilities to Other Contractors working on the Project or other third parties, job extension costs, and other losses incurred by the Owner or Client. The provisions of this paragraph are for the exclusive use of the Owner and Client, and shall not accrue to Other Contractors or other third parties.
- K. The Owner will issue the Notice of Substantial Completion after the Owner, in its sole and exclusive discretion, has determined that Substantial Completion of the Work has occurred.

Section 9.02 – Physical Completion and Contract Completion and Acceptance

- A. After the Owner has issued the Notice of Substantial Completion, the Contractor shall comply with General Conditions Section 8.02 B. Compliance with General Conditions Section 8.02 B is a condition precedent to the payment described in General Conditions Section 8.02 A. Once the Owner approves

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the detailed estimate of the value of the known remaining items of Work and the schedule for achieving Physical Completion and Contract Completion and Acceptance, the Contractor shall achieve Physical Completion and Contract Completion and Acceptance no later than the dates for each in the approved schedule. The Owner and Contractor agree that achieving Physical Completion and Contract Completion and Acceptance no later than the dates for each in the approved schedule is an essential condition of the Contract and that time is of the essence.

- B. The Contractor agrees that after achieving Substantial Completion, Contractor shall continue to prosecute the remaining items of Work regularly, diligently, and cooperatively with Other Contractors. Contractor further agrees that once the schedule for achieving Physical Completion and Contract Completion and Acceptance is approved, the Contractor shall prosecute the remaining items of Work regularly, diligently, and cooperatively with Other Contractors at such a rate of progress as shall ensure the achieving of Physical Completion and Contract Completion and Acceptance by the dates for each in the approved schedule.
- C. The list of remaining Work items may be expanded to include additional items of corrective or completion Work until Contract Completion and Acceptance by the Owner. Appropriate payments may be withheld to cover the value of these items pursuant to General Conditions Section 8.02.
- D. The Owner will issue the Notice of Physical Completion after the Owner, in its sole and exclusive discretion, has determined that Physical Completion of the Work has occurred.
- E. The Owner will issue the Notice of Contract Completion and Acceptance after the Owner, in its sole and exclusive discretion, has determined that Contract Completion and Acceptance of the Work has occurred. Contract Completion and Acceptance follows or may be concurrent with Physical Completion.

ARTICLE 10 -- CLAIMS AND DISPUTES

Section 10.01 - Claim for Extra Work

A. If the Contractor claims that:

- 1. a decision of, or direction or response to the Contractor by, the Owner, Consultant, or Owner Representative;
- 2. a condition; or
- 3. any action or omission of the Owner;

is contrary to the terms and provisions of the Contract and will require the Contractor to perform Extra Work, Contractor shall file a written notice of Claim in strict accordance with General Conditions Section 10.03. No Claim for Extra Work shall be allowed unless the Contractor files a written notice of Claim that complies strictly with the requirements of General Conditions Sections 10.01 and 10.03. The notice of Claim shall identify the decision, direction, response, action, omission, or condition from which the Claim arises. The Contractor shall also strictly comply with all other requirements of General Conditions Sections 10.01 and 10.03.

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- B. If the Owner determines the decision, response, direction, action, omission, or condition does not require the performance of Extra Work, the Owner shall issue a Disputed Work Directive. The Contractor, upon receipt of the Disputed Work Directive shall immediately and diligently proceed with the Work described in the Disputed Work Directive in accordance with all instructions of the Owner. Contractor's failure to proceed immediately and diligently with any Disputed Work Directive issued by the Owner, unless the Owner in writing directs otherwise, shall be a material breach of the Contract. Contractor's performance of the Work described in and pursuant to the Disputed Work Directive shall not be a waiver of the Contractor's Claim for Extra Work provided the Contractor strictly complies with all requirements of General Conditions Sections 10.01 and 10.03. The Owner may issue a Disputed Work Directive for a decision, response, direction, action, omission, or condition before the Contractor files a notice of Claim arising from such decision, response, direction, action, omission, or condition; if the Owner does so, the Contractor shall still file a notice of Claim in strict compliance with General Conditions Section 10.03 and shall strictly comply with all requirements of General Conditions Sections 10.01 and 10.03.
- C. The Contractor's failure to comply strictly with any or all parts of General Conditions Sections 10.01 and 10.03 shall be deemed to be:
1. a conclusive and binding determination on the part of the Contractor that the decision, response, direction, action, omission, or condition does not involve Extra Work; and
 2. a waiver by the Contractor of all Claims for additional compensation or damages as a result of the decision, response, direction, action, omission, or condition.

Section 10.02 - Claim for Additional Cost

- A. If the Contractor wishes to make a Claim for an increase in the cost to perform the Work, including but not limited to a Claim alleging breach of the Contract by Owner, the Contractor shall file a written notice of Claim strictly in accordance with General Conditions Section 10.03. The notice of Claim shall identify the condition or event from which the Claim arises. No Claim for an increase in the cost to perform the Work of the Contract shall be allowed unless the Contractor files a notice of Claim that complies strictly with the requirements of General Conditions Section 10.02 and 10.03. Contractor shall also strictly comply with all other requirements of General Conditions Sections 10.02 and 10.03. The Owner shall determine the validity of the Contractor's contention. Pending the decision of the Owner, the Contractor shall proceed with the diligent and prompt performance of the Work. Denial of additional costs shall not entitle the Contractor to additional time to achieve Substantial Completion. Nothing in this paragraph waives any of Owner's rights under the Contract.
- B. The Contractor's failure to comply strictly with any or all parts of General Conditions Sections 10.02 and 10.03 shall be deemed to be:
1. a conclusive and binding determination on the part of the Contractor that the event or condition does not increase the cost to perform the Work of the Contract; and
 2. a waiver by the Contractor of all Claims for additional compensation or damages as a result of the event or condition.

Section 10.03 - Notice of Claim and Substantiation

- A. A written notice of Claim shall be delivered concurrently to the Owner's Representative and Project Controls Unit by the Contractor within fifteen (15) calendar days after occurrence of the event, decision,

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direction, response, action, or omission giving rise to such Claim or within fifteen (15) calendar days after the Contractor first recognizes the condition giving rise to the Claim, whichever is earlier. The burden of proving the Owner's receipt of the notice of Claim shall be the Contractor's responsibility. Contractor's failure to comply with the requirements of this Section 10.03 shall constitute a waiver of its Claim.

- B. Within ninety (90) calendar days of the initial notice of Claim, the Contractor shall substantiate the Claim in writing and document the nature of the Claim and provide supporting cost data and documentation, Contractor's original cost estimate, Project CPM schedule demonstrating alleged impact of and correlation to the Claim subject matter and a Contractor affidavit stating the following:

"I hereby certify that the value assigned the work, labor, material and equipment that comprise the Claim, represents the actual value of said work, labor, material and equipment pursuant to the Contract between the undersigned and the Dormitory Authority."

1. The Contractor shall provide, every thirty (30) calendar days thereafter for as long as such damages are incurred, written, verified statements of the details and the amounts of such damages, together with documentary evidence of such damages.
2. Contractor shall identify the final written, verified statement for each Claim submitted pursuant to this paragraph.
3. Each written, verified statement shall be delivered as set forth in paragraph C of this General Conditions Section 10.03.

- C. The Contractor shall provide the Owner's Representative one (1) electronic copy of the documented Claim and mail two (2) paper copies of the documented Claim to:

Dormitory Authority
Project Controls Unit
515 Broadway
Albany, NY 12207-2964

- D. The Owner, at any time after the Contractor files a notice of Claim, may request additional documentation to determine the validity of the Contractor's contention and the Contractor shall submit such additional documentation within the time period specified by the Owner in the Owner's request for additional documentation. The Owner, at any time after the Contractor files a notice of Claim, may request an updated and reconciled electronic copy of the documented Claim and the Contractor shall submit such a copy within ten calendar days.
- E. The value of any Claim, if allowed, shall be determined by the methods described in General Conditions Article 7 – Changes in the Work. No Claim shall be allowed unless and until a Change Order allowing the Claim is executed and delivered by the Owner to the Contractor; payment of an allowed Claim may be made only through an Application for Payment.
- F. Any information representing the actual value of the labor performed, equipment utilized and material Furnished contained in the Claim that constitutes False Representation may subject the Contractor or

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Subcontractor to criminal charges, including NYS Penal Law Sections 175.35 (Offering a False Instrument for Filing) and 210.40 (False Statement) and/or Title 18 U.S.C. Sections 1001 (Fraudulent and False Statements) and/or termination of the Contract for cause and civil prosecution under Article XIII of the NYS State Finance Law – the New York False Claims Act.

Section 10.04 - No Damages for Delay

- A. No Claims for increased costs, charges, expenses, or damages of any kind shall be made by the Contractor against the Owner for any delays or hindrances from any cause whatsoever; provided that the Owner, in the Owner's sole and exclusive discretion, may compensate the Contractor for any said delays or hindrances by extending the date for achieving Substantial Completion specified in the Contract. No payment for increased cost, charge, expense, or damage of any kind shall act as a waiver of the Owner's right, in its sole and exclusive discretion, to compensate the Contractor for any delays or hindrances from any cause whatsoever solely by extending the date for achieving Substantial Completion specified in the Contract.
- B. If the Contractor claims that a delay or hindrance entitles the Contractor to additional time to achieve Substantial Completion, the Contractor shall submit a written request to the Owner for such additional time within fifteen (15) calendar days of the event or condition giving rise to the request. The written request shall identify the event or condition causing the alleged delay or hindrance giving rise to the request and show that the Contractor is not responsible for the delay or hindrance or for any concurrent delay. The Contractor shall submit with the request an updated Project CPM schedule that shows the impact of the event or condition on the Project CPM schedule. The request and updated Project CPM schedule shall be submitted to the Owner in accordance with General Conditions Section 10.03 C. The Owner may request additional documentation to decide the Contractor's request and the Contractor shall submit such additional documentation within the time period specified by Owner in the Owner's request for additional documentation. Failure of the Owner to respond in writing to a written request for additional time within thirty (30) calendar days shall be deemed a denial of the request unless the Owner extends the period to respond to the written request for additional time by written notice to the Contractor. While the Owner is considering the Contractor's request, the Contractor shall proceed with the diligent and prompt performance of the Work. Denial of additional time shall not entitle the Contractor to additional costs.
- C. The Contractor's failure to comply strictly with any or all parts of General Conditions Sections 10.03 and 10.04 shall be deemed to be:
 1. a conclusive and binding determination on the part of the Contractor that the event or condition causing the alleged delay or hindrance does not require additional time to achieve Substantial Completion; and
 2. a waiver by the Contractor of all Claims for additional time to achieve Substantial Completion as a result of the event or condition causing alleged delay or hindrance.

Section 10.05 - Continuance of the Work

Unless the Owner, in writing, permits otherwise, the Contractor shall proceed diligently and promptly with the performance of the Work while the Owner considers a notice of Claim filed pursuant to:

- A. General Conditions Sections 7.01D and 10.03;
- B. General Conditions Sections 10.01 and 10.03; or

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C. General Conditions Sections 10.02 and 10.03;

or while the Owner considers a request for additional time to achieve Substantial Completion filed pursuant to General Conditions Sections 10.03 and 10.04 or while the Owner considers any other Claim.

Section 10.06 - Resolution of Claim

- A. Any resolution or determination by the Owner of a Claim or a request for additional time to achieve Substantial Completion shall be final, binding and conclusive on the Contractor unless within fifteen (15) calendar days after receiving notice of the Owner's resolution, the Contractor files a written notice with the Owner that the Contractor reserves the Contractor's rights under the Contract in connection with the matters covered by said resolution or determination. The written notice shall be filed in strict accordance with General Conditions Sections 10.03 C and 10.06. The Contractor's failure to comply strictly with these requirements shall be deemed to be a waiver by the Contractor of all Claims for additional compensation or damages included in the Claim and the request for additional time to achieve Substantial Completion.
- B. After any resolution or determination by the Owner of a Claim or a request for additional time to achieve Substantial Completion, the Contractor shall proceed diligently and promptly with the performance of the Work whether the Contractor files a written notice with the Owner that the Contractor reserves the Contractor's rights under the Contract in connection with the matters covered by said resolution or determination or the Contractor does not file such a written notice. Nothing in this paragraph waives any of the Owner's rights under the Contract.
- C. Contractor shall file no action or proceeding in a court challenging any resolution or determination by the Owner of a Claim or a request for additional time to achieve Substantial Completion unless the Contractor shall have strictly complied with all the requirements relating to the giving of notice and of information with respect to such Claim or request for additional time to achieve Substantial Completion in this General Conditions Article 10. Nothing in this paragraph waives any of Owner's rights under the Contract.
- D. Contractor shall file no action or proceeding in court challenging any resolution or determination by the Owner of a Claim or a request for additional time to achieve Substantial Completion until Contractor has achieved Physical Completion of the Work. Contractor agrees that any court action or proceeding challenging any resolution or determination by the Owner of a Claim or a request for additional time to achieve Substantial Completion filed before Contractor has achieved Physical Completion of the Work is premature. Nothing in this paragraph waives any of Owner's rights under the Contract. The Owner, in its sole and exclusive discretion, may modify this paragraph by a Contract Amendment.
- E. At its sole and exclusive discretion, the Owner may resolve any Claim or a request for additional time to achieve Substantial Completion without waiving its rights under the Contract.

ARTICLE 11 – TERMINATION OR SUSPENSION

Section 11.01 – Termination for Cause

- A. In the event that any provision of the Contract is violated by the Contractor or by any Subcontractor, the Owner may serve written notice upon the Contractor and upon the Contractor's surety, if any, of the Owner's intention to declare a Contractor Default (defined in the Performance Bond) and terminate the Contract. Such notice shall contain the reasons for the intention to declare a Contractor Default and

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terminate the Contract. The Contractor will be allowed an opportunity to show why the Owner should not declare a Contractor Default and why the Contractor's Contract should not be terminated for cause. If the violation shall not cease or arrangements satisfactory to the Owner are not made, the Owner, in writing, may declare a Contractor Default and the Contract shall terminate upon the date specified by the Owner in the declaration of Contractor Default. The Owner shall send the Contractor and the Contractor's surety, if any, written notice of and a copy of the declaration of Contractor Default and termination of the Contract. In the event of a declaration of Contractor Default and termination of the Contract, the Owner has the remedies set forth in the Performance Bond, the Contract, and all remedies at law or in equity.

- B. In the event of any such termination, the Owner may take over the Work and prosecute the Contract to completion and take possession of and may utilize such materials, appliances, and equipment on the Site and necessary or useful in completing the Work. The Contractor and Contractor's surety shall be liable to the Owner for all costs incurred by the Owner.
- C. In the event the termination for cause is determined to be improper, the termination shall be deemed a termination pursuant to General Conditions Section 11.02 – Termination for Convenience of Owner.

Section 11.02 - Termination for Convenience of Owner

- A. The Owner, at any time, may terminate the Contract in whole or in part. Any such termination shall be effected by delivering to the Contractor a written notice of termination specifying the extent to which performance of Work under the Contract is terminated and the date upon which the termination becomes effective. Upon receipt of the notice of termination, the Contractor shall act promptly to minimize the expenses resulting from the termination.
- B. The Owner shall pay the Contractor for Work of the Contract performed by the Contractor and accepted by the Owner for the period extending from the end of the period covered by the last approved Application for Payment up to the effective date of the termination, an amount determined in accordance with General Conditions Article 7 – Changes in the Work. In no event shall the Contractor be entitled to compensation in excess of the total consideration of the Contract. In no event shall Contractor be entitled to overhead or profit on the Work not performed.
- C. In the event of such termination the Owner may take over the Work and prosecute the Contract to completion and may take possession of and may utilize such materials, appliances, and equipment on the Site and necessary or useful in completing the Work.

Section 11.03 - Owner's Right to do Work

The Owner at any time may notify the Contractor that the Owner will have the Work of the Contract or any part thereof, performed by others, without terminating the Contract and without prejudice to any other right the Owner may have. The Owner may recover any and all costs related to such Work and deduct the value of such Work from the Contract amount. In the event the total costs related to such Work performed by others, or other costs associated with compliance with the Contract Documents, exceeds the available funds remaining in the Contract, the Owner shall have the right to recover said funds from the Contractor.

Section 11.04 - Suspension of Work

- A. Should the Owner determine that conditions exist such that it becomes necessary to suspend performance of all or any part of the Work, the Owner, at its sole discretion, shall issue to the Contractor a Suspend Work Order. Upon receipt of the order, the Contractor shall immediately comply with its

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terms and take reasonable steps to protect the Work covered by the order during the period of work suspension. The order shall contain the reason or reasons for suspension which may include, but is not limited to, latent field conditions, substantial program revisions, acquisition of rights of way or real property, financial crisis, labor disputes, civil unrest, expired insurance, court order, public health emergency or acts of God.

- B. Upon receipt of a Suspend Work Order, the Contractor shall, as soon as practicable, cease performance of the Work as ordered and take immediate affirmative measures to protect such Work from loss or damage.
- C. The Contractor specifically agrees that such suspension of the Work shall not increase the cost of the Work. However, to the extent that the suspension of the Work is through no fault of the Contractor, the Owner may consider requests for compensation provided that the Contractor complies with General Conditions Article 10 – Claims and Disputes.
- D. The date of Substantial Completion of the Work may be extended by Change Order to compensate the Contractor for the time lost by the suspension.
- E. The Owner may terminate the Suspend Work Order by a written direction to the Contractor or through the issuance of a Resume Work Order, or may invoke any other provision of General Conditions Article 11 – Termination or Suspension.

Section 11.05 – Stoppage of Work

- A. Should the Contractor fail to comply with the terms of the Contract, including but not limited to the insurance requirements of the Contract, the Owner may at any time, in its sole discretion, issue a Stop Work Order requiring the Contractor to stop all or any part of the Work. Upon receipt of the order, the Contractor shall immediately comply with its terms and take reasonable steps to protect the Work covered by the order during the period of work stoppage. The Owner, at its option, shall either:
 - 1. Cancel the Stop Work Order after the Contractor has successfully remedied the cause of the Stop Work Order; or
 - 2. Invoke any other provision of General Conditions Article 11 – Termination or Suspension.
- B. The Contractor shall not be entitled to an increase in time or costs as a result of the Stop Work Order. Owner may, in its sole discretion, consider requests for an increase in time or costs provided that the Contractor complies with General Conditions Article 10 – Claims and Disputes.

ARTICLE 12 -- BENEFICIAL OCCUPANCY

Section 12.01 - Occupancy Prior to Substantial Completion

- A. If, before Substantial Completion, the Owner desires Beneficial Occupancy of any part of the Work, the Owner shall have the right to do so, and the Contractor shall in no way interfere with or object to Beneficial Occupancy. Payment for operational costs of Project systems for the part of the Work subject to Beneficial Occupancy from the time of Beneficial Occupancy to Substantial Completion shall be borne by the Owner, unless otherwise specified by the Contract.
- B. Said Beneficial Occupancy (1) shall not constitute acceptance of space, systems, materials, or elements of the Work and (2) shall not affect the obligations of the Contractor for Work which is not in

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accordance with the requirements of the Contract or other obligations of the Contractor under the Contract.

The Contractor shall continue the performance of the Work in a manner that shall not unreasonably interfere with said use, occupancy, and operation by the Owner.

ARTICLE 13 -- INSPECTION

Section 13.01 - Access to the Work

The Owner shall at all times have access to the Work and the Contractor shall provide proper facilities for access. If the Contractor schedules or performs any Work on a day or at a time which results in a Dormitory Authority employee assigned to the Project receiving overtime compensation or an additional charge to the Dormitory Authority from an Other Contractor for such Work, the Dormitory Authority, in its sole and exclusive discretion, may deduct such overtime compensation and such additional charge from moneys due the Contractor. If the Contractor intends to schedule any Work, including but not limited to any testing or inspection, outside the regular operating hours for the Project, the Contractor must provide the Owner and any Other Contractor involved in such Work at least fifteen (15) calendar days written notice of the scheduled date for such Work. The Owner, in its sole and exclusive discretion, may reduce the required number of days of notice for one or more occasions by written notice to the Contractor and to any involved Other Contractors.

Section 13.02 - Notice for Testing and Inspection

If the Contract Documents, the Owner's instructions, laws, rules, ordinances, or regulations require that any Work be inspected or tested, the Contractor shall give the Owner a minimum of five (5) calendar days, unless otherwise specified, written notice of readiness of the Work for inspection or testing and the date fixed for said inspection or testing.

Section 13.03 - Reexamination of Work

Reexamination of any part of the Work may be ordered by the Owner, and if so ordered the Work shall be uncovered by the Contractor. If said Work is found to be in accordance with the Contract, the Owner shall pay the cost of reexamination. If said Work is not found to be in accordance with the Contract, the Contractor shall pay the cost of reexamination and replacement.

Section 13.04 - Inspection of Work

All Work, all materials whether incorporated in the Work or not incorporated in the Work, all processes of manufacture, and all methods of construction shall be, at all times and places, subject to the inspection of the Owner, and the Owner shall be the final judge of the quality and suitability of the Work, materials, processes of manufacture, and methods of construction for the purposes for which said Work, materials, processes of manufacture, and methods of construction are used. Any Work not approved by the Owner shall be reconstructed, made good, replaced, or corrected immediately by the Contractor including all work of Other Contractors destroyed or damaged by said removal or replacement. Rejected material shall be removed immediately from the Site. Acceptance of material and workmanship by the Owner shall not relieve the Contractor from the Contractor's obligation to replace all Work that is not in full compliance with the Contract.

Section 13.05 - Defective or Damaged Work

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If, in the opinion of the Owner, it is undesirable to replace any defective or damaged materials or to reconstruct or correct any portion of the Work damaged or not performed in accordance with the Contract Documents, the Contract amount shall be reduced by an amount, which in the judgment of the Owner, shall be deemed equitable.

Section 13.06 – Testing of Work

All materials and equipment used in the Work shall be subject to testing in accordance with accepted standards to establish conformance with the Contract Documents and suitability for intended use or as directed by the Owner. Any Work covered or concealed without the approval or consent of the Owner, shall be uncovered for examination. No testing by the Owner or by a testing laboratory on behalf of the Owner relieves the Contractor of the responsibility to maintain quality control of materials, equipment, and installation to conform to the requirements of the Contract Documents. The Owner may order additional testing for any test results below specified minimums, above specified maximums or otherwise unacceptable. Additional cost for testing, professional services and any other expenses related to the additional testing shall be at the Contractor's expense. The Owner may deduct such costs from moneys due the Contractor.

Section 13.07 - Final Completion

No previous inspection shall relieve the Contractor of the obligation to perform the Work in accordance with the Contract. No payment, either partial or full, by the Owner to the Contractor shall excuse any failure by the Contractor to comply fully with the Contract Documents. The Contractor shall remedy all defects and deficiencies at the Contractor's expense, paying the cost of any damage to other Work, the work of Other Contractors and the property of the Owner or Client. No Work is completed and accepted until the Owner issues the Notice of Contract Completion and Acceptance. Contract Completion and Acceptance is limited to the Work described in the Notice of Contract Completion and Acceptance.

Section 13.08 - Guarantee

The Contractor shall, in all respects, guarantee the Work to the Owner and be responsible for all material, equipment, and workmanship of the Work. The Contractor shall forthwith repair, replace or remedy in a manner approved by the Owner, at the Contractor's expense, any material, equipment, workmanship, or other part of the Work found by the Owner to be defective or otherwise faulty and not in compliance with the Contract Documents, which defect or fault appears during the minimum period of one (1) year, or such longer period as may be prescribed by the Contract, from the date of Substantial Completion determined by the Owner. For items of Work performed after the date of Substantial Completion, the minimum period of one (1) year in the preceding sentence shall begin with the date of Physical Completion. The Contractor shall also pay for any damage to the Work, any damage to the work of Other Contractors and any damage to the property of the Owner or Client resulting from said defect or fault.

ARTICLE 14 -- PROTECTION OF PERSONS AND PROPERTY

Section 14.01 – Site Safety and Protection

- A. The Contractor and each Subcontractor shall comply with all applicable rules, regulations, codes, and bulletins of the New York State Department of Labor and to the standards imposed under the Federal Occupational Safety and Health Act of 1970, as amended. The Contractor and each Subcontractor shall comply with all Client safety requirements. The Contractor and each Subcontractor shall comply with

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all City of New York safety requirements for Projects within the City of New York constructed in accordance with the Building Code of the City of New York.

- B. The Contractor and each Subcontractor, and only the Contractor and each Subcontractor, shall be responsible for the initiation, maintenance and supervision of safety precautions and programs in connection with the Work and the Contractor shall require each Subcontractor to initiate, maintain and supervise its own safety precautions and programs for any portion of the Work for which the Subcontractor is responsible and to generate safety reports for days when safety inspections occur. The Contractor shall prepare and submit to the Owner a written safety plan for the Site showing how all safety requirements of applicable law and the Contract will be implemented for the duration of the Contract. The Contractor shall designate a responsible person at the Site whose duties shall include maintaining site safety pursuant to OSHA and any other applicable requirements including NYS EO 202, conducting weekly tool box meetings with its workers, implementing the Site safety plan and providing the Owner with a copy of such meeting minutes.
- C. The Owner shall provide the Contractor with copies of the Owner's safety orientation booklet. The Contractor shall provide a copy to each of its workers and to each worker of its Subcontractors prior to each worker starting Work. The Contractor shall maintain documentation that each worker received a copy of the Owner's safety orientation booklet prior to the worker starting Work.
- D. The Contractor and each Subcontractor shall, at all times: (1) guard the Owner's property from damage or loss in connection with the Work; (2) guard and protect the Contractor's Work and adjacent property; (3) replace or make good any said loss or damage unless said loss or damage is caused directly by the Owner; and (4) guard the lives and health of all persons on and in the vicinity of the Site.
- E. The Contractor and each Subcontractor shall protect all adjoining property and shall repair or replace any said property damaged or destroyed during the progress of the Work.
- F. The Contractor is responsible for ensuring that each Subcontractor executes the Subcontractor's obligations in this General Conditions Section 14.01.

Section 14.02 - Protection of Work

- A. The Contractor shall be responsible for the safety, efficiency and adequacy of the Contractor's Work, plant, appliances, and methods, and for any damage which may result from the failure or the improper construction, maintenance, or operation of such Work, plant, appliances, and methods.
- B. The Contractor shall have full responsibility to protect and maintain all materials on and off site in proper condition and forthwith repair, replace and make good any damage thereto until Physical Completion. The Contractor shall maintain an inventory of all materials for the Project that are delivered to the Site or approved for off-site storage facilities pursuant to General Conditions Section 8.01 G. All tools, spare parts, extra materials, attic stock and similar items delivered by the Contractor after Physical Completion shall be in proper condition and Contractor shall forthwith repair, replace, and make good any damage thereto until the later of Contract Completion and Acceptance or the expiration of one year from delivery.
- C. The Contractor shall immediately report any loss, theft, burglary, vandalism, or damage of materials or installed work to the Owner by phone and email as soon as it is discovered. If vandalism, theft, or burglary is suspected as the cause of the loss, the Contractor shall notify Site security personnel and the municipal police, protect the place of the loss until released from protection by the Owner, and insure that no potential evidence relating to the loss is removed from the place of the loss.

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- D. Any insurance claim alleging damage to the Work shall be submitted to the Owner pursuant to General Conditions Section 10.03.
- E. A claim for damage to the Work shall include the following in addition to the requirements of General Conditions Section 10.03:
 - 1. A copy of a police report (if applicable).
 - 2. A complete inventory of damages or lost items including:
 - a. Description of each item.
 - b. Purchase date and proof of delivery of each item.
 - c. Supplier from whom purchased.
 - d. Serial number (if applicable).
 - e. Price of each item.
 - 3. The name, address and telephone number of the person who controlled the lost or damaged items immediately before the loss or damage.
 - 4. The name, address and telephone number of the person who discovered the loss or damage.
 - 5. A written description of how the loss or damage occurred.
- F. The Owner may deny any claim from the Contractor under this General Conditions Section 14.02 if all items required by this General Conditions Section 14.02 are not provided or are not satisfactory to the Owner.

Section 14.03 - Protection of Lives and Health

- A. The Contractor and each Subcontractor shall be responsible for the safe performance of the Work and their Means and Methods of Construction and for any injury or loss that shall occur from a failure to meet such responsibility.
- B. The Contractor shall, within twenty-four (24) hours, notify the Owner and each Subcontractor shall, within twenty-four (24) hours, notify the Contractor of any incident, accident, illness, or injury that occurred on the Project Site. The Contractor shall follow-up and provide the Owner with a copy of Form C-2, Employers Report of Injury/Illness within twenty-four (24) hours of any incident, accident, illness, or injury, a copy of the recorded OSHA Log and any and all reports and statements pertaining to such incident, accident, illness, or injury.
- C. The Contractor and each Subcontractor shall maintain a record of all cases of death, illness or injury requiring medical attention, hospitalization, or causing loss of time from work, arising out of and in the course of performance of Work of the Contract.
- D. The Contractor and each Subcontractor shall preserve and safeguard the area of any incident, accident, illness, or injury where the person required emergency medical treatment. The Contractor shall secure

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the area and not allow any material object or property to be altered, changed, moved, or removed from the area and post a person at the area to protect it. Safeguarding and protecting the area shall only be abandoned by the Contractor upon release by the Owner. The Contractor shall provide the Owner, within twenty-four (24) hours, a list of witnesses which includes the full name, home address, occupation and telephone number of each person and all maintenance records, tool box meeting records and daily reports reflecting the work performed on the day of the incident. The Contractor shall provide, within twenty-four (24) hours of learning of the actual or potential existence of any other witnesses, the Owner with updated information which includes the full name, home address, occupation, and telephone number of each additional witness.

- E. If, in the performance of the Work, a harmful hazard is created for which appliances or methods of elimination have been approved by regulatory authorities, the Contractor shall install, maintain, and operate said appliances or methods.
- F. The Contractor and each Subcontractor shall provide, in accordance with the terms of the relevant insurance policies and, as soon as practicable, within five (5) calendar days, written notice to each of its liability insurers (primary, excess and umbrella) of any such incident, accident, illness, injury, or death on the Project Site on behalf of itself, the Owner, the Client, and the Construction Manager. This provision does not remove the obligation of each insured to provide notice to its liability insurers. The Contractor and each Subcontractor shall provide to the Owner, the Client and the Construction Manager, a copy of such notice at the time such notice is given to each insurer as well as confirmation of receipt of such notice by each insurer.
- G. The Contractor is responsible for ensuring that each Subcontractor executes the Subcontractor's obligations in this General Conditions Section 14.03.
- H. Drug Testing Policy:
 - 1. The Contractor shall undertake or continue, and ensure each Subcontractor shall undertake or continue, a drug testing policy designed to maintain a safe working environment.
 - 2. The Contractor shall submit to the Owner, within seventy-two (72) hours after the date of the execution of this Contract, its drug testing policy in connection with the Project. Owner reserves the right in its sole discretion to direct that the Contractor's drug testing policy, at a minimum, contains a requirement to drug test any employee involved in an incident on the Project involving any reported bodily injury or any property damage over \$1000 in value. Owner may also require random drug testing when appropriate in accordance with law along, with certifications to Owner regarding the status of the testing.
 - 3. The Contractor shall not allow any worker or employee on a work site who is under, appears to be under, or is suspected of being under the influence of drugs or alcohol. Such employee shall not be allowed on site until drug testing has occurred and Owner has approved.
- I. Professional Conduct:
 - 1. The Contractor acknowledges and agrees that professionally appropriate conduct is a material obligation of this Contract. All employees, officers and representative of Contractor shall conduct themselves professionally in all communications in connection with the Project, including but not limited to communications with Subcontractors and other contractors.

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2. Use of abusive, threatening, vulgar or other offensive language, whether written or oral, is a breach of the obligation set forth in paragraph (1) of this section 14.03 (I).
3. Contractor will receive a warning in writing from Owner upon breach of the obligation set forth paragraph (1) of this section 14.03 (I). Contractor agrees that any subsequent breach of paragraph (1) of this section 14.03 (I) committed after receipt of the written warning is grounds for the Owner to terminate this Contract for cause, or for the Owner to avail itself of any other remedy at law.
4. The Contractor shall include the provisions set forth in paragraphs (1) and (2) of this section 14.03 (I) in every subcontract in such a manner that the requirements of these provisions will be binding upon each Subcontractor as to Work in connection with the Contract.

J. Sexual Harassment:

1. As a condition to the award of this Contract, Contractor affirms that it has implemented (i) a written policy addressing sexual harassment prevention in the workplace and that (ii) it provides or will provide annual sexual harassment training to all of its employees, both of which meet the requirements of New York law including Section 201-g of the New York State Labor Law. The policy shall equal or exceed the standards set forth by the New York Department of Labor pursuant to the model sexual harassment prevention policy in connection with New York Labor Law Section 201-g (1). The Contractor shall ensure that all its employees receive a copy of the sexual harassment prevention policy pursuant to New York law and shall provide a copy to owner upon request.
2. The Contractor shall submit to the Owner, within seventy-two (72) hours after the date of the execution of this Contract, its sexual harassment prevention policy. The Owner may direct Contractor to revise its sexual harassment prevention policy to the extent that the Owner determines that the policy fails to meet the standards set forth in paragraph (1) of this section. Owner's failure to direct Contractor to revise its policy does not constitute a determination or representation that the policy satisfies New York law nor that the policy meets the standards set forth in paragraph (1) of this section.
3. The Contractor shall include the provisions set forth in paragraph (1) of this section 14.03 (J) in every subcontract in such a manner that the requirements of these provisions will be binding upon each Subcontractor as to Work in connection with the Contract.

K. Failure of the Contractor to comply with provisions of this General Conditions Section 14.03 shall be deemed a material breach of Contract and the Owner may impose a payment penalty on the Contractor for any act of non-compliance. The payment penalty shall not exceed one twentieth (1/20) of the contract price or a maximum of One Thousand Dollars (\$1,000) for each time the Contractor fails to perform or to provide the information, reports, forms, etc. required in this General Conditions Section 14.03. This payment penalty is not exclusive; the Owner may avail itself of any other contractual remedy available.

Section 14.04 - Risks Assumed by the Contractor

The Contractor agrees that each duty set forth in this General Conditions Section 14.04 is separate, distinct, and independent from the other duties in this General Conditions Section 14.04.

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- A. To the fullest extent permitted by law, the Contractor solely assumes the following distinct and several risks whether said risks arise from acts or omissions, whether supervisory or otherwise, of the Owner, of the Client, of any Subcontractor, of third persons or from any other cause, including unforeseen obstacles and difficulties which may be encountered in the performance of the Work, whether said risks are within or beyond the control of the Contractor and whether said risks involve any legal duty, primary or otherwise, imposed upon the Owner or Client, regardless of the presence or absence of culpable conduct on the part of the Contractor, excepting only risks which arise from faulty designs as shown by the Drawings and Specifications or from the percentage of negligence attributed to the Owner, the Client or the Construction Manager or the Owner's, Client's or Construction Manager's members, officers, representatives or employees that caused the loss, damage or injuries hereinafter set forth:
1. To the fullest extent permitted by law, the risk of loss or damage, including direct or indirect damage or loss, of whatever nature to the Work or to any plant, equipment, tools, materials or property furnished, used, installed or received by the Owner, the Construction Manager, the Contractor or any Subcontractor, materialman or worker performing services or furnishing materials for the Work regardless of the presence or absence of any culpable conduct on the part of the Contractor, excepting only risks which arise from the percentage of negligence attributed to the Owner, Client or Construction Manager or the Owner's, Client's or Construction Manager's members, officers, representatives or employees that caused the loss or damage. The Contractor shall bear said risk of loss or damage until Physical Completion or until completion or removal of said plant, equipment, tools, materials or property from the Site and the vicinity thereof, whichever event occurs last. In the event of said loss or damage, the Contractor immediately shall repair, replace, or make good any said loss or damage.
 2. To the fullest extent permitted by law, the risk of claims, just or unjust, by third persons against the Contractor, the Owner, the Client, or the Construction Manager on account of wrongful death, bodily injuries and property damage, direct or consequential, loss or damage of any kind whatsoever arising out of or alleged to arise out of or as a result of or in connection with the performance of the Work by the Contractor or any Subcontractor, whether actually caused by or resulting from the performance of the Work, or out of or in connection with the operations of the Contractor or any Subcontractor or presence at or in the vicinity of the Site of the Contractor or any Subcontractor, regardless of the presence or absence of any culpable conduct on the part of the Contractor. The Contractor shall bear the risk for all deaths, injuries, damages or losses sustained or alleged to have been sustained prior to Physical Completion of the Work excepting only the percentage of negligence attributed to the Owner, Client or Construction Manager or the Owner's, Client's or Construction Manager's members, officers, representatives or employees that caused the deaths, losses, damages or injuries, regardless of the presence or absence of any culpable conduct on the part of the Contractor. The Contractor shall bear the risk for all deaths, injuries, damages, or losses sustained or alleged to have been sustained after Physical Completion resulting from the Contractor's negligence or alleged negligence.
 3. To the fullest extent permitted by law, the Contractor assumes entire responsibility and liability for any and all damage or injury of any kind or nature whatsoever, including death resulting therefrom, to all persons, whether employees of the Contractor or otherwise, and to all property, arising out of or alleged to arise out of or as a result of or in connection with the performance of the Work by the Contractor or any Subcontractor, whether actually caused by or resulting from the performance of the Work, or out of or in connection with the Contractor's or any Subcontractor's operations or presence at or in the vicinity of the Site, regardless of the presence or absence of any culpable conduct on the part of the Contractor. If any person shall make said claim for any damage or injury, including death resulting therefrom, or any alleged breach of any statutory duty or obligation on

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the part of the Owner, the Client, Construction Manager, or any of the servants and employees of the Owner, Client or Construction Manager, the Contractor shall indemnify and hold harmless the Owner, the Client, the Construction Manager, and any of such servants and employees, for any and all loss, damage or injury that the Owner, the Client Construction Manager, or any such servants and employees, may sustain as the result of any claim, provided however, the Contractor shall not be obligated to indemnify and hold harmless the Owner, the Client Construction Manager, and any such servants and employees for their own negligence, if any. In the event that any negligence is attributed to the Owner, Client, Construction Manager or any such servants or employees, then that particular entity or person shall be indemnified and held harmless for all of its liability minus the percentage of negligence attributed to that particular entity or person.

4. Notwithstanding any contrary provision of the Contract, and to the fullest extent permitted by law, the Contractor shall, within ten (10) calendar days of notice from the Owner, Client or Construction Manager, assume the obligation to defend and represent the Owner, the Client, the Construction Manager, and any of the servants and employees of the Owner, Client or Construction Manager, with counsel selected by the Owner, in all claims by third parties arising out of or alleged to arise out of or as a result of or in any way associated with the duties, obligations or requirements of the Contractor or any Subcontractor pursuant to the Contract, or the presence of the Contractor or any Subcontractor on the Site. This obligation to defend applies immediately and is separate and independent of and distinct from the enforceability of any obligation of Contractor or any Subcontractor to indemnify or hold harmless the Owner, the Client, the Construction Manager and the servants or employees of the Owner, Client, and Construction Manager. The Contractor's obligation to defend includes, but is not limited to, payment of any legal fees associated with defending the Owner, the Client, the Construction Manager and any such servants and employees, all costs of investigation, expert evaluation, and any other costs. If the Contractor fails to so defend and represent the Owner, the Client, the Construction Manager, or any such servants and employees with counsel selected by the Owner, the Owner may proceed to defend and represent itself, the Client, the Construction Manager and any such servant and employee with counsel selected by Owner. Contractor shall make payment of the selected counsel's fees and expenses and all other defense costs incurred by Owner immediately upon receipt of Owner's demand.
- B. The Contractor's obligations under this General Conditions Article shall not be deemed waived, limited or discharged by the enumeration or procurement of any insurance for liability for damages. The Contractor shall notify its insurance carrier within twenty-four (24) hours after receiving a written notice of loss or damage or claim from the Owner, the Client, or the Construction Manager. The Contractor shall make a claim to its insurer specifically under the provisions of the contractual liability coverage and any other coverage afforded the Owner, the Client or Construction Manager including those of being a named insured or an additional insured where applicable.
- C. Neither Contract Completion and Acceptance of the Work nor making any payment shall release the Contractor from the Contractor's obligations under this General Conditions Article. The enumeration elsewhere in the Contract of particular risks assumed by the Contractor or of particular claims for which the Contractor is responsible shall not be deemed to limit the effect of the provisions of this General Conditions Article or to imply that the Contractor assumes or is responsible for only risks or claims of the type enumerated; and neither the enumeration in this General Conditions Article nor the enumeration elsewhere in the Contract of particular risks assumed by the Contractor or particular claims for which the Contractor is responsible shall be deemed to limit the risks which the Contractor would assume or the claims for which the Contractor would be responsible in the absence of said enumerations.

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- D. Notwithstanding any provision of the Contract to the contrary, and to the fullest extent permitted by law, if the Contractor does not fulfill one or more of Contractor's obligations under General Conditions Articles 14 and 15 to defend, indemnify, hold harmless, and procure insurance for the Owner, Client and Construction Manager, and the Owner, Client or Construction Manager commences a court action to enforce one or more of the Contractor's obligations to defend, indemnify, hold harmless and procure insurance for the Owner, Client and Construction Manager, the Contractor, in addition to its other obligations, shall pay the costs of the Owner, Client and Construction Manager to bring and prosecute the court action, including but not limited to attorney and consultant fees, expenses and court fees. If the Owner, Client, or Construction Manager commences a court action against an insurance company to obtain coverage under an insurance policy which the Contractor represented would provide coverage to the Owner, Client or Construction Manager, the Contractor, in addition to its other obligations, shall pay the costs of the Owner, Client, and Construction Manager to bring and prosecute the court action, including but not limited to attorney and consultant fees, expenses, and court fees.

ARTICLE 15--INSURANCE AND BONDS

Section 15.01 - General Provisions

- A. The Contractor and Subcontractors shall not violate, or permit to be violated, any term or condition of their insurance policies, and shall at all times satisfy the safety requirements of the Owner and of the insurance companies issuing such policies.
- B. The Contractor and Subcontractors shall maintain in force all insurance required to be procured by them under this Contract until issuance of the Notice of Physical Completion by the Owner except where this Contract requires an insurance policy to be maintained for a period beyond issuance of the Notice of Physical Completion in which case the Contractor and Subcontractors shall maintain such insurance policy in force for the specified period beyond issuance of the Notice of Physical Completion.
- C. All insurance required to be procured and maintained by the Contractor and Subcontractors under this Contract shall be procured from insurance companies licensed to do business in the State of New York by the NYS Department of Financial Services and rated at least A- by A.M. Best and Company, or meet such other requirements as are acceptable to the Owner in its sole and exclusive discretion.
- D. All insurance policies required to be procured and maintained by the Contractor and Subcontractors under this Contract shall include a provision or endorsement that the policy shall not be canceled, materially changed, or not renewed without at least thirty (30) calendar days written notice to the Owner except for non-payment in which case notice to the Owner shall be provided as required by law.
- E. All insurance policies required to be procured and maintained by the Contractor and Subcontractors under this Contract shall include a provision or endorsement that at least thirty (30) calendar days prior to the expiration of the policy, evidence from the carrier of renewal or replacement of the policy by the carrier, with terms and limits no less favorable than the expiring policy, or written notice from the carrier that the policy will not be renewed or replaced by the carrier, shall be delivered to the Owner.
- F. All insurance policies required to be procured and maintained by the Contractor and Subcontractors under this Contract shall be written on an occurrence basis except where this Contract explicitly allows otherwise.
- G. All insurance policies required to be procured and maintained by the Contractor and Subcontractors under this Contract shall include a provision or endorsement that the Owner and the Client shall not be responsible for any claim expenses and loss payments within the deductible or the self-insured retention

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and that the Contractor or Subcontractor shall be solely responsible for all claim expenses and loss payments within the deductible or self-insured retention. At any time this Contract requires the Contractor or any Subcontractor to maintain an insurance policy, the Owner may require the Contractor or any Subcontractor to provide proof, acceptable to the Owner in its sole discretion, that the Contractor or Subcontractor has assets or security sufficient to satisfy all deductible or self-insured obligations under such insurance policy for which the Contractor or Subcontractor may be liable under the claims pending or reasonably possible against the Contractor or Subcontractor at the time the Owner requires the proof. A failure of the Contractor or Subcontractor to provide such proof is a failure of the Contractor or Subcontractor to maintain the insurance required by the Contract or to provide the Owner with evidence of valid and in-force insurance coverage required by the Contract for purposes of General Conditions Section 15.05.

- H. All insurance policies required to be procured and maintained by the Contractor and Subcontractors under this Contract shall include a provision or endorsement that there shall be no right of subrogation against the Owner, Client, or Construction Manager. If any of the Contractor's policies or any of the policies of any Subcontractor prohibit such a waiver of subrogation, the Contractor or Subcontractor shall secure the necessary permission to grant this waiver of subrogation. Any and all such permission shall be confirmed by a manuscript endorsement to the relevant insurance policy or policies and a certified copy of the endorsement shall be provided to the Owner and Construction Manager.
- I. Each liability and protective liability insurance policy required to be procured and maintained by the Contractor and Subcontractors under this Contract shall include a provision or endorsement that the coverage afforded the Owner, Client and Construction Manager under such policy shall be primary and non-contributory and that such policy shall be primary to any other insurance policy maintained by the Owner, by the Client or by the Construction Manager. Any other insurance policy maintained by the Owner, by the Client or by the Construction Manager shall be in excess of and shall not contribute with the Contractor's or Subcontractor's insurance policy, regardless of the "other insurance" clause contained in the Owner's, Client's or Construction Manager's own policy of insurance or the Contractor's or Subcontractor's insurance policies.
- J. Any other Contract Document, including but not limited to the Information for Bidders, but excluding Change Orders, may require any of the Contractor and Subcontractors to provide at its or their expense any other form or limit of insurance necessary to secure the interests of the Owner or Client.
- K. Notwithstanding any other provision of the Contract, the Owner, in a Change Order or Contract Amendment, may require the Contractor and any or all Subcontractors to provide, at the expense of the Owner, any other form or limit of insurance in addition to the insurance requirements of the original Contract necessary to secure the interests of the Owner, Client, or Construction Manager.
- L. Neither the procurement nor the maintenance of any type of insurance by the Owner, the Client, the Contractor or the Construction Manager shall in any way be construed or deemed to limit, discharge, waive or release the Contractor or any Subcontractor from any of the obligations or risks accepted by the Contractor and Subcontractors or to be a limitation on the nature or extent of said obligations and risks or to be a limitation of any obligation to defend, indemnify, hold harmless and procure insurance for the Owner, Client and Construction Manager.
- M. All provisions of General Conditions Article 14 - Protection of Persons and Property and General Conditions Article 15 – Insurance and Bonds are to the fullest extent permitted by law. One purpose of this Contract is to allocate, to the fullest extent permitted by law, all risk of loss to the Contractor, each Subcontractor, and the insurers of each. Each insurance company from which Owner or Client

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has directly purchased an insurance policy is a third-party beneficiary of the Contractor's and each Subcontractor's obligations to procure insurance.

- N. Contractor is responsible for ensuring that each Subcontractor obtains and maintains in the required amount each type of insurance policy required by this Contract and that such insurance policy provides the Owner, Client and Construction Manager with the coverage required by this Contract.
- O. Contractor agrees and acknowledges that, because the Contractor (and not the Owner or Client) is responsible for performance of the duties and obligations set forth in this Contract for completion of the Project, the Contractor, through the use of insurance, intends to allocate all losses to such insurance to protect itself and the Owner and Client.

Section 15.02 - Submission of Insurance

- A. Owner will not execute the Contract unless the Contractor shall submit to the Owner or the Owner's designee proof of insurance in such forms as requested and deemed acceptable by the Owner, indicating the Project, and showing evidence of all insurance required under the Contract. Upon the Owner's request, the Contractor shall provide a copy of each insurance policy required by the Contract certified by the insurance carrier as a true and complete copy. The Owner may request such a certified copy of a policy at any time and may make such requests as often as the Owner, in its sole and exclusive discretion, deems necessary. Each request may be for a certified copy of one or more policies. In addition, the Contractor shall provide copies of certificates of insurance to the Construction Manager, if applicable. Certificates of insurance, notwithstanding anything to the contrary contained on the Certificate of Insurance, when submitted to the Owner, constitute a warranty by the Contractor and its insurance agent or broker, that the insurance coverage described is in effect for the policy term shown.
- B. The Contractor shall submit to the Owner or Owner's designee insurance certificates (Accord 25, or equivalent as determined by the Owner), copies of declaration pages, schedules of forms and endorsements, copies of all named insured endorsements, all endorsements of the policy granting coverage to the Owner, Client, and Construction Manager, and such other documents requested by the Owner as proof of insurance for the Contractor. All insurance submittals must be approved by the Owner or the Owner's designee prior to the Contractor's commencement of Work.
- C. Upon the Owner's request, the Contractor shall submit to the Owner or Owner's designee proof of insurance for one or more Subcontractors, in such forms as requested and deemed acceptable by the Owner, indicating the Project, and showing evidence of all insurance required under the Contract. Upon the Owner's request, the Contractor shall provide a copy of each insurance policy of the Subcontractor or Subcontractors required by the Contract and certified by the insurance carrier as a true and complete copy. The Owner may request such a certified copy of a policy at any time and may make such requests as often as the Owner, in its sole and exclusive discretion, deems necessary. Each request may be for a certified copy of one or more policies for one or more Subcontractors. In addition, the Contractor shall provide copies of certificates of insurance to the Construction Manager, if applicable. Certificates of insurance of the Subcontractors, notwithstanding anything to the contrary contained on the Certificate of Insurance, when submitted to the Owner by the Contractor, constitute a warranty by the Contractor, the Subcontractor and the Subcontractor's insurance agent or broker, that the insurance coverage described is in effect for the policy term shown.
- D. Upon request of the Owner made any time after bids are opened, the Contractor shall submit insurance certificates (Accord 25 and 855, or equivalent as determined by the Owner), copies of declaration pages, schedules of forms and endorsements, copies of all named insured endorsements, all endorsements of the policy granting coverage to the Owner, Client, and Construction Manager, and such other

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documents requested by the Owner as proof of insurance for a Subcontractor. Owner may request proof of insurance for one or more Subcontractors at the same or at different times and may request proof of insurance for a particular Subcontractor as often as Owner, in its sole and exclusive discretion, determines is necessary.

Section 15.03 - Insurance Provided by Contractor

- A. Prior to award of the Contract, the Contractor shall procure, at its sole cost and expense, and shall maintain in force at all times required by this Contract all of the insurance required under this Contract. Each Subcontractor shall procure, at its sole cost and expense, prior to the Contractor submitting to the Owner the name of such Subcontractor and prior to such Subcontractor commencing performance of any of the Work, and each Subcontractor shall maintain in force at all times required by this Contract all of the insurance required under this Contract. The insurance that the Contractor and each Subcontractor shall procure and maintain under this Contract includes, but is not limited to, the following:
1. Workers' Compensation (including occupational disease) and Employer's Liability insurance. Full New York State Workers' Compensation and Employer's Liability coverage shall be provided and evidenced by one of the following certificates (**Acord certificates are not acceptable**):
 - a. C-105.2 (September '15, or most current version) - Certificate of NYS Workers' Compensation Insurance Coverage. The insurance carrier shall provide a completed form as evidence of in-force coverage.
 - b. U-26.3 – (or any replacement) NYS Insurance Fund Certificate of Workers' Compensation Coverage. The NYS Insurance Fund shall provide a completed form as evidence of in-force coverage.
 - c. GSI-105.2(2/02 or most current version) - Certificate of Participation in Workers' Compensation Group Board-approved self-insurance. The NYS Workers' Compensation Board's Self Insurance Office or the Contractor's Group Self Insurance Administrator shall provide a completed form.
 - d. SI-12 (5/09 or most current version) Affidavit Certifying That Compensation Has Been Secured. The NYS Workers' Compensation Board's Self Insurance Office or the Contractor's Self Insurance Administrator shall provide a completed form.
 2. Disability Benefits insurance. Full New York State Disability Benefits coverage for the benefit of such employees as are required to be covered by the New York State Disability Benefits Law shall be provided and evidenced by one of the following certificates:
 - a. DB-120.1 (September 15, or most current version) - Certificate Of Insurance Coverage Under the NYS Disability Benefits Law.
 - b. DB-155 (9/16) – Compliance with Disability Benefits Law. The NYS Workers' Compensation Board's Self Insurance Office shall provide a completed form.
 - c. CE 200 Certificate of Attestation of Exemption. (Note: this form will only be accepted as evidence of an exemption from providing Disability Benefits insurance as required by law. The Dormitory Authority of the State of New York will not accept this as an exemption from providing Worker's Compensation Insurance.) The Certificate may be obtained from the NYS

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Workers Compensation Board's website at <http://www.wcb.state.ny.us>. The CE 200 cannot be used for multiple projects; therefore, a new form shall have to be completed prior to award of any subsequent contract.

3. Commercial General Liability (CGL) insurance. The CGL insurance policy shall cover the liability of the Contractor or Subcontractor for bodily injury, property damage, and personal/advertising injury arising from performance of the Work or operations or presence at or in the vicinity of the Site of the Contract. The limits under such policy shall not be less than the following: the limit for each occurrence shall be at least \$2,000,000; the general aggregate limit shall be at least \$4,000,000; the personal and advertising injury limit shall be at least \$1,000,000; ; the Fire Damage Legal Liability shall be at least \$1,000,000; and the Products Completed Operations limit shall be at least \$4,000,000. The limits may be provided through a combination of primary and umbrella and/or excess liability policies. Coverage shall provide and encompass at least the following:
 - a. If the Contractor or Subcontractor proposes the use of a policy other than the ISO form CG 00 01 12 07, the Contractor or Subcontractor shall provide the proposed policy to the Owner which, in its sole and exclusive discretion, will determine whether the proposed policy provides equivalent coverage. The Contractor or Subcontractor shall pay Owner any attorney fees and other costs incurred by Owner in determining whether the proposed policy provides equivalent coverage. Owner will select the attorney providing advice on the proposed policy.
 - b. ISO Endorsement Forms CG 20 10 04 13 and CG 20 37 04 13, or their equivalents, specifically naming as additional insureds the Dormitory Authority, Client, any other entities as required by the Contract Documents, and if applicable, the Construction Manager and for form CG 20 37 04 13 or its equivalent, specifically listing the Project location. In the event said endorsements or equivalents are not able to be provided, the Owner may accept, at the Owner's sole discretion, CG 20 38 04 13 or its equivalent or other manuscript endorsements providing equivalent coverage.
 - c. If the Contractor or Subcontractor proposes the use of an endorsement or endorsements other than the ISO Endorsement Forms CG 20 10 04 13 and CG 20 37 04 13, the Contractor or Subcontractor shall provide the proposed endorsement(s) to the Owner or the Owner's designee which, in its sole and exclusive discretion, will determine whether the proposed endorsements provide equivalent coverage. Contractor and Subcontractor shall pay Owner any attorney fees and other costs incurred by Owner in determining whether the proposed endorsements provide equivalent coverage. Owner will select the attorney providing advice on the proposed endorsements.
 - d. Additional insured status for Owner, Client, Construction Manager and any other entities as required by the Contract Documents shall apply during the Products/Completed Operations phase as well as during the course of performance of the Work.
 - e. The policy provisions required by General Conditions Section 15.01.
 - f. Excavation, Collapse and Underground Hazards.
 - g. Independent contractors/subcontractors.
 - h. Blanket Written Contractual Liability covering all indemnity agreements, including all indemnity obligations contained in the Contract, and covering tort liability of another assumed in a contract.

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- i. Products and completed operations coverage for a term no less than three years commencing upon issuance by the Owner of the Notice of Physical Completion.
 - j. Premises liability.
 - k. Defense and/or indemnification obligations, including obligations assumed under this Contract.
 - l. Cross liability for additional insureds.
 - m. Contractor and Subcontractor means and methods.
 - n. Liability resulting from Section 240 or Section 241 of the NYS Labor Law.
 - o. ISO Endorsement CG 25 03 11 85 or its equivalent applying the policy's general aggregate limit separately to the Project.
 - p. The maximum deductible or self-insured retention shall be \$50,000.
 - q. No endorsement or provision in the policy shall exclude coverage for Owner, Client, or Construction Manager for any liability when the injured party is an employee of Contractor or any Subcontractor.
 - r. No endorsement or provision in the policy shall require privity of contract between the Owner and Subcontractor or between the Client and the Contractor or Subcontractor or between the Construction Manager and the Contractor or Subcontractor in order for the Owner, the Client, or the Construction Manager to have coverage as an insured on such insurance policy.
 - s. If the Contractor or Subcontractor must provide a Railroad Protective Liability insurance policy, the CGL exclusion for work within fifty (50) feet of railroad property must be deleted.
 - t. No endorsement or provision in the policy shall have a height limitation or exclusion.
 - u. No endorsement or provision in the policy shall have a classification exclusion with respect to work performed for the Owner, Client, and Construction Manager.
 - v. Owner, Client, and Construction Manager shall be covered for any and all liability arising out of acts or omissions of Contractor and any Subcontractor.
4. Commercial Automobile Liability insurance. The Commercial Automobile Liability insurance policy shall cover liability arising out of the use of any motor vehicle in connection with the Contract, including owned, leased, hired and non-owned vehicles bearing or, under the circumstances under which they are being used, required by the laws of NYS to bear, license plates. The policy shall have a combined single limit for bodily injury and property damage of at least \$1,000,000. The limit may be provided through a combination of primary and umbrella and/or excess liability policies. If the Contract involves the removal of hazardous waste or otherwise transporting Hazardous Materials, pollution liability coverage for covered autos shall be provided by endorsement CA 99 48 03 06 or CA 00 12 03 06 and the Motor Carrier Act Endorsement (MCS90) shall be attached to the policy.

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5. Umbrella and/or Excess Liability insurance. When the limits of the CGL, Commercial Auto Liability or Employers' Liability policies procured are insufficient to meet the limits specified in the preceding paragraphs, Commercial Umbrella or Excess Liability policies shall be procured and maintained provided, however, that the total amount of insurance coverage is at least equal to the requirements specified in the preceding paragraphs. The Commercial Umbrella or Excess Liability policies shall follow the same form as the CGL, Commercial Automobile Liability and Employers Liability insurance policies required in the preceding paragraphs. The Umbrella and/or Excess Liability policies shall be primary to any other insurance maintained by the Owner or Client or Construction Manager or any other additional insured. Any other insurance maintained by the Owner, the Client, the Construction Manager, or any other additional insured shall be in excess of and shall not contribute with the Contractor's or Subcontractor's Umbrella or Excess Liability insurance policies, regardless of the "other insurance" clause contained in the Owner's or Client's or Construction Manager's or other additional insured's own policy of insurance or the Contractor's or Subcontractor's insurance policies.
 6. The Contractor shall secure, pay for, and maintain property insurance necessary for protection against the loss of owned, borrowed or rented capital equipment and tools, including any tools owned by employees, and any tools or equipment, staging towers, and forms owned, borrowed, or rented by the Contractor. The requirement to secure and maintain such insurance is solely for the benefit of the Contractor. Failure of the Contractor to secure such insurance or to maintain adequate levels of coverage shall not render the Owner, Client and, if applicable, the Construction Manager and other entities specified as additional insureds on the sample certificate of insurance provided by the Owner in the bidding documents or their agents and employees responsible for any losses; and the Owner, Client and, if applicable, the Construction Manager and other entities specified as additional insureds on the sample certificate of insurance provided by the Owner in the bidding documents and their agents and employees shall have no such liability.
- B. Notwithstanding any other provision of the Contract to the contrary and to the fullest extent permitted by law, Contractor shall be liable for all costs and fees, including counsel fees, incurred by or on behalf of the Owner, the Client or the Construction Manager in any action brought by or against the Owner, Client or Construction Manager concerning insurance coverage owed to Owner, Client or Construction Manager by any insurer for which Contractor or any Subcontractor represented that the Owner, Client and Construction Manager would be an insured or would benefit in any way if a claim was brought against Owner, Client and Construction Manager .

Section 15.04 - Other Insurance Provided by Contractor

The Contractor and each Subcontractor shall also procure and maintain as required by General Conditions Sections 15.01 B and 15.03 A the following insurance:

- A. United States Longshore and Harbor Workers' Compensation Act and Jones Act: When, to perform the Work, the Contractor or any Subcontractor is engaged in activities on or near a shoreline or on or near the navigable waterways of the United States or when any part of the Work is connected to water related activities, the Workers' Compensation policy referenced above of the Contractor and any such Subcontractor shall be endorsed to provide Jones Act and United States Longshore and Harbor Workers' Act coverage.
- B. Contractor's Pollution Liability insurance: When the Work includes abatement, removal, repair, replacement, enclosure, encapsulation or disposal of any pollutants, which include but are not limited to, petroleum, petroleum products, mold, asbestos, lead or any other Hazardous Material, the Contractor or any Subcontractor performing Work involving any of the pollutants, shall procure and maintain in

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full force and effect pollution legal liability insurance with limits of at least \$2,000,000 providing coverage for bodily injury and property damage, including loss of use of damaged property or of property that has not been physically injured and coverage that encompasses at least the following:

1. Endorsement specifically naming as additional insureds: Dormitory Authority, the Client, and if applicable, the Construction Manager and other entities specified on the sample certificate of insurance provided by the Owner in the bidding documents.
 2. The policy provisions required by General Conditions Section 15.01.
 3. A maximum deductible or self-insured retention of \$50,000.
 4. Coverage for actual, alleged or threatened emission, discharge, dispersal, seepage, release or escape of pollutants, including any loss, cost or expense incurred as a result of any cleanup of pollutants or in the investigation, settlement or defense of any claim, suit or proceedings against the Owner, Client or Construction Manager arising from the Work.
 5. Coverage shall be provided until three years after the Owner issues the Certificate of Physical Completion.
- C. Railroad Protective Liability insurance: If any Work of the Contract is to be performed on or within fifty (50) feet of a railroad property or railroad right of way or will require entrance upon railroad property or right of way or will require assignment of a railroad employee, the Contractor shall provide and maintain a Railroad Protective Liability policy with the policy limits required by the owner(s) of the railroad. For purposes of this paragraph, a subway is a railroad. The policy form shall be ISO-RIMA or an equivalent form approved by the owner(s) of the railroad. The railroad owner(s) shall be the named insured on the policy and the definition of "physical damage to property" shall mean direct and accidental loss of or damage to all property of any named insured and all property in any named insured's care, custody, or control. If the Contractor shall provide a Railroad Protective Liability insurance policy, the Contractor and any Subcontractor performing on or within fifty (50) feet of railroad property or railroad right of way or entering railroad property or right of way or requiring assignment of a railroad employee shall have their CGL insurance policy endorsed to delete the exclusion of coverage for Work within fifty (50) feet of railroad property.
- D. Professional Liability insurance: Each of the Contractor and any Subcontractor performing any Work which involves delegation of design shall procure and maintain Error and Omissions Liability Insurance for the delegated design Work with a minimum insurance limit of not less than two (2) million dollars issued to and covering damage for liability imposed on the Contractor or Subcontractor by this Contract or law arising out of any negligent act, error, or omission in the rendering of or failure to render professional services required by this Contract. This insurance may be issued on a claims-made policy form and shall be maintained for no less than three (3) years after issuance by the Owner of the Notice of Physical Completion. The policy, at the sole expense of the Contractor or Subcontractor, shall have extended Discovery Clause coverage of at least three (3) years after issuance by the Owner of the Notice of Physical Completion if the policy is cancelled or not renewed. The maximum deductible or self-insured retention is \$100,000.
- E. Unmanned Aircraft System (UAS) Insurance: Any Contractor or Subcontractor proposing the use of any Unmanned Aircraft System for any purpose on a Project, including but not limited to investigation, surveying, photography, inspections or observation, shall comply with all of Owner's policies and procedures regarding such use and shall provide coverage, in the form of an Unmanned Aircraft System (UAS) endorsement to the Commercial General Liability Coverage required above or Aircraft Liability

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Coverage with a minimum limit of \$1,000,000. Such coverage shall name the Owner and any required third parties as additional insureds.

- F. Marine Protection & Indemnity insurance and Hull & Machinery insurance: Each of the Contractor and any Subcontractor performing any Work on navigable water or connected to water-related activities or with marine operations, shall procure and maintain Marine Protection & Indemnity insurance and Hull & Machinery insurance. Hull & Machinery coverage shall be provided for the total value of the watercraft and equipment used in the Work on navigable water or connected to water-related activities or with marine operations. The Contractor shall obtain a Marine Protection & Indemnity Liability insurance policy for all navigable water, water-related or marine activities or operations under the Contract with a minimum limit of \$2,000,000. The Owner, the Client and, if applicable, the Construction Manager and other entities specified on the sample certificate of insurance provided by the Owner in the bidding documents shall be additional insureds on the Marine Protection & Indemnity Liability insurance policy. The Marine Protection & Indemnity Liability insurance policy shall provide coverage that encompasses at least the following:
5. The policy provisions required by General Conditions Section 15.01.
 2. A maximum deductible or self-insured retention of \$50,000.
 3. Coverage shall be provided until the Owner issues the Certificate of Physical Completion.
 4. Endorsement specifically naming as additional insureds: Dormitory Authority, the Client, and if applicable, the Construction Manager and other entities specified on the sample certificate of insurance provided by the Owner in the bidding documents.

Section 15.05 - Stop Work Order - Insurance

- A. All insurance certificates are valid for one (1) year from the date the certificate is signed/stamped, or until policy expiration, whichever is earlier. The Contractor shall be responsible to submit updated insurance certificates to the Owner or the Owner's designee thirty (30) calendar days prior to any insurance certificate expiration date.
- B. Failure of the Contractor or any Subcontractor to maintain the insurance required by the Contract or to provide the Owner or the Owner's designee with evidence of valid and in-force insurance coverage required by the Contract shall result in a Stop Work Order pursuant to General Conditions Article 11 – Termination or Suspension and/or withholding of payment to the Contractor.
- C. At any time that the coverage provisions and limits on the policies required herein do not meet the provisions and limits set forth above, the Contractor or Subcontractor shall immediately cease Work on the Project. The Contractor or Subcontractor shall not resume Work on the Project until authorized to do so by the Owner or the Owner's designee.
- D. Any delay or time lost as a result of the Contractor or Subcontractor not having proper insurance required by this General Conditions Article or not providing the Owner or the Owner's designee with evidence of valid and in force insurance required by the Contract shall not give rise to a delay Claim or any other Claim against the Owner. Further, the Contractor may be liable to other contractors for costs incurred by reason of the Contractor's or Subcontractor's failure to provide insurance.

Section 15.06 – Builder's Risk

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- A. The Owner will provide Builder's Risk insurance for all projects, except for those projects listed in paragraph B of this General Conditions Section 15.06.
1. The Owner shall, except as otherwise specified, at all times beginning with the Notice to Proceed and until Substantial Completion, procure and maintain, at the Owner's sole cost and expense, "All Risk" Builder's Risk insurance. The Contractor and Subcontractors will be covered for the Work of the Contract, except losses up to and including the deductible shall be borne by the Contractor. The Owner shall, at the Owner's sole discretion, have the power to adjust and to settle with the insurer any loss or claim under the Builder's Risk insurance. Reimbursement for loss, if any, shall be made payable to the Owner. The deductible is stated in the Information for Bidders.
 2. Coverage shall include sub limits for property in transit and for property in storage on and off the Site. Specific higher limits for transit or for storage may be available as circumstances may require upon written request by the Contractor or any Subcontractor to the Owner at least 30 calendar days before such higher limit would take effect if the request is granted. Owner in its sole and exclusive discretion may grant or deny the request for a higher limit for transit or storage. If the Owner denies the request, the Contractor or Subcontractor shall have no Claim against the Owner for any cost or damage. If the Owner grants the request, the Owner may condition the grant upon the Contractor or Subcontractor paying the additional cost for the higher limit for transit or storage.
 3. No coverage shall be provided to the Contractor or any Subcontractor under any property insurance policy of the Owner or Client which only covers completed, occupied structures.
- B. The Contractor shall procure and maintain, at its sole cost and expense, Builder's Risk insurance for all OMH, OPWDD, OASAS, NYCHA, and HTFC-GOSR projects, or when otherwise specified, as provided below.
1. The Contractor shall maintain until the date of Physical Completion, an All Risk Builder's Risk Completed Value Form insurance policy, with coverage for at least the value of the Work of the Contract except for excavation work, planting and seeding, and Work buried in the ground other than wiring and walking tunnels, but including debris removal costs and architect, engineering and other costs to evaluate damage and provide any design or other services necessary to correct or minimize damage in the event of damage to the Work covered by the policy or such higher amount of coverage as required by the Owner in this Contract. Debris removal costs shall include demolition as may be necessary by the operation of any law, ordinance, or regulation. The policy shall cover property of the Owner or Client when in the Contractor's care, custody, or control. The policy shall name as insureds the Owner, Client and Contractor and shall include such soft costs coverage for the Owner and Client as specified in this Contract. The extended coverage endorsement may include a loss deductible of \$10,000 or less. The Contractor shall bear all losses up to and including the deductible provision.
 2. Coverage shall also include sub limits for equipment, material, and other property in transit or in storage on or off the Site. Specific higher limits of coverage for property in transit or storage, at Contractor's expense, may be required by the Owner due to circumstances of the Project.

Each Builder's Risk insurance policy shall include the following endorsement:

"It is made a condition of this insurance that until the Owner issues the Notice of Physical Completion to the Contractor, occupancy of the premises shall not require consent of the insurer, nor shall such occupancy be the basis for a rate adjustment."

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3. Builder's Risk insurance policy shall name the Dormitory Authority and the Contractor Loss Payees in order of precedence, as their interests may appear and shall run until the date of Physical Completion. Policies expiring on a fixed date before Physical Completion shall be renewed not less than thirty (30) calendar days before such expiration date. Such policy shall not be changed by endorsement without the knowledge and consent of the Owner and in particular, shall provide that no notice of cancellation by the insurer shall be effective until sixty (60) calendar days after such notice is received by the Owner. If the policy is issued by a mutual insurance company, the policy shall provide that the Owner and the Client shall not be liable for any premium or assessment under the policy; the Contractor shall be responsible for all premiums and assessments.
4. The Owner may withhold the Contractor's payment for Work which is required to be insured until original binder or policies for the Builder's Risk insurance are provided to the Owner pursuant to General Conditions Section 15.06.

Section 15.07 - Bonds Provided by Contractor

- A. The Contractor shall provide the Performance Bond in an amount at least equal to 100% of the Contract sum as security for the faithful performance of the Contract. The Contractor shall also provide the Payment Bond in an amount at least equal to 100% of the Contract sum for the payment of all persons performing labor or providing materials in connection with the Work of the Contract. The Contractor shall execute the Performance Bond form and the Payment Bond form included in the Contract Documents.
- B. If at any time the Owner, in its sole and exclusive discretion, shall become dissatisfied with any surety or sureties upon the Performance Bond or the Payment Bond, or if for any other reason said bonds shall cease to be adequate security to the Owner, the Contractor shall, within five (5) calendar days after written notice from the Owner to do so, substitute an acceptable bond or bonds in such form and sum and signed by such other surety or sureties as may be satisfactory to the Owner. The Contractor shall pay the premiums on said bond or bonds. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable bond or bonds to the Owner.
- C. The surety company, on all bonds, shall be authorized to do business in the State of New York by the NYS Department of Financial Services and rated at least A- by A.M. Best and Company, or meet such other requirements as are acceptable to the Owner in its sole and exclusive discretion.

ARTICLE 16 -- GENERAL PROVISIONS of the CONTRACT

Section 16.01 - General Law Provisions

- A. This Contract and its enforcement, and any controversy arising out of or relating to the making or performance of this Contract, shall be governed by and construed in accordance with the law of the State of New York, without regard to the New York principles of conflicts-of law and except where the United States supremacy clause requires otherwise.
- B. Each and every provision of law and clause required by law to be inserted in the Contract shall be deemed to be inserted therein and the Contract shall read and shall be enforced as though so included therein.
- C. The Contractor shall comply fully with all applicable laws, rules, and regulations, and as applicable, Building Code of New York State or Building Code of the City of New York.

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- D. The Contractor agrees that the Contract shall be deemed executory to the extent of moneys available from either: (1) the proceeds of bonds issued by the Dormitory Authority for the Contract, (2) moneys made available by the Client to the Owner for the Contract, (3) other moneys made available to the Owner from whatever source specifically for the Contract and no liability shall be incurred by the Owner beyond moneys available therefore.
- E. The relationship created by the Contract between the Owner and the Contractor is one of an independent contractor and it is no way to be construed as creating an agency relationship between the Owner and the Contractor nor is it to be construed as, in any way or under any circumstances, creating or appointing the Contractor as an agent of the Owner for any purpose whatsoever.
- F. Except as provided herein, this Contract and each and every provision hereof and thereof is for the exclusive benefit of the Parties hereto and not for the benefit of any third party. Nothing in the Contract shall create or shall give to third parties any claim or right of action against the Owner, the State of New York, the Client, or any institution at which the Work is being carried out beyond such as may legally exist irrespective of the Contract; however, it is understood that the Client is an intended third party beneficiary of the Contract for the purposes of recovering any damages caused by the Contractor.
- G. The Contractor shall not assign the Contract in whole or in part without prior written consent of the Owner. Any attempt to assign the Contract in whole or in part without prior written consent of the Owner is null and void. As a condition to consent to the assignment, the Owner shall require each proposed assignee to establish, to the satisfaction of the Owner in its sole and exclusive discretion, that the assignee is responsible and, if applicable, has the experience to perform the Work. If the Owner consents to an assignment and if the Contractor assigns all or part of any moneys due or to become due under the Contract, the instrument of assignment shall contain a clause substantially to the effect that the Contractor and assignee agree that the assignee's right in and to any moneys due or to become due to the Contractor shall be subject to all prior claims for services rendered or materials supplied in connection with the performance of the Work. The Owner reserves the right to assign this Contract in whole or in part without the consent of the Contractor. Unless otherwise agreed by the Parties hereto in a separate writing, no permitted assignment described in this Section shall relieve the assigning Party from any of its obligations under this Contract. However, the assignee may be required by the assigning Party to agree to indemnify and hold harmless the assigning Party from some or all of its obligations under this Contract.
- H. This Contract shall be binding upon and shall inure to the benefit of the Parties hereto and their respective successors and permitted assignees.
- I. The Owner is exempt from the terms of fair-trade agreements for sales to the Contract.
- J. Inasmuch as the Contractor can be compensated adequately by money damages for any breach of the Contract which might be committed by the Owner, the Contractor agrees that no default, act or omission of the Owner shall constitute a material breach of the Contract entitling the Contractor to cancel or rescind the Contract or to suspend or abandon performance of the Contract; and the Contractor hereby waives any and all rights and remedies to which the Contractor might otherwise be or become entitled to because of any wrongful act or omission of the Owner saving only the Contractor's right to money damages.
- K. No action or proceeding shall lie or shall be maintained by the Contractor, nor anyone claiming under or through the Contractor, against the Owner upon any Claim arising out of or based upon the Contract, relating to the giving of notices or information.

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- L. No action or proceeding shall lie in favor of or shall be maintained by the Contractor against the Owner unless such action shall be commenced within one year after the earliest following event:
 - 1. The date the Owner executes the Notice of Physical Completion.
 - 2. Receipt, by the Owner, of the Contractor's final Application for Payment, if no Notice of Physical Completion is issued.
 - 3. The date of termination if the Owner terminates the Contract.
- M. The Owner and Contractor agree to submit to the exclusive jurisdiction of the Commercial Division, New York Supreme Court, which shall hear any dispute, Claim or controversy arising in connection with or relating to this Contract, including, but not limited to the validity, breach, enforcement, or termination thereof.
- N. No action or proceeding shall be brought against the Owner in any location other than Albany County unless the Owner specifically consents, in writing, to a change of venue.
- O. If the Contractor obtains a judgment against the Owner in any action or proceeding, the Contractor agrees to accept no more than three percent (3%) interest, per annum, on the amount of the judgment.
- P. Neither Contractor nor its Subcontractors shall place or maintain, or permit to be placed or maintained, any sign, bill, or poster on or about the Premises without the prior consent of Owner's Representative.
- Q. Each Party has reviewed and discussed this Contract with counsel and agrees that this Contract shall not be construed by applying any rule of construction providing for interpretation against the drafting Party.

Section 16.02 - Diesel Emissions Reduction

- A. The Contractor shall certify that heavy duty vehicles, as defined in the NYS Environmental Conservation Law (ECL) Section 19-0323 and Title 6 of the New York Codes Rules and Regulations, Part 248 (6 NYCRR 248), will comply with the rules, regulations and provisions pursuant to ECL Section 19-0323, and 6 NYCRR 248, which requires the use of Best Available Retrofit Technology and Ultra Low Sulfur Diesel to the extent required by law unless specifically waived by the NYS Department of Environmental Conservation (DEC). Qualification for a waiver will be the responsibility of the Contractor.
- B. Annually, as required by DEC, but no later than March 1st, the Contractor shall complete and submit directly to the Owner, via electronic mail, the Regulated Entity Vehicle Inventory Form and Regulated Entity and the Contractors Annual Report Form, found on the DEC website <http://www.dec.state.ny.gov> for vehicles used on the Project for the preceding calendar year.
- C. The Contractor shall certify to the Owner, and submit with each Application for Payment, the Contractor and Subcontractor Certifications form, which states that the Contractor agrees to comply with the provisions of General Conditions Section 16.02.

Section 16.03 – State and Federal Labor Law Provisions

- A. All applicable provisions of NYS Labor Law shall be carried out in the performance of the Work.

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- B. The Contractor specifically agrees, as required by NYS Labor Law, Sections 220 and 220-d as amended, that:
1. No worker, in the employ of the Contractor, any Subcontractor or any other person doing or contracting to do the whole or any part of the Work contemplated by the Contract shall be permitted or required to work more than eight (8) hours in any one (1) calendar day and more than five (5) days in any one week, except in the extraordinary emergencies set forth in NYS Labor Law.
 2. The wages paid for a legal day's work shall be not less than the prevailing rate of wages as defined by NYS Labor Law. Each laborer, worker or mechanic employed by the Contractor, any Subcontractor or any other person doing or contracting to do the whole or any part of the Work contemplated by the Contract shall be paid not less than the prevailing rate of wages as defined by NYS Labor Law and shall be provided not less than the supplements as required by NYS Labor Law.
 3. The minimum hourly rate of wage to be paid and supplements provided shall be not less than that required by the NYS Labor Law and as shall be designated by the Commissioner of Labor of the State of New York.
 4. The Contractor and all Subcontractors shall post in a prominent and accessible place on the Site, a legible statement of all minimum wage rates and supplements to be paid or provided for the various classes of workers engaged in the performance of the Work and all deductions, if any, required by law to be made from unpaid wages actually earned by any worker so engaged.
 5. The Contractor and all Subcontractors shall provide each worker a written notice of the prevailing wage rate for each of the worker's particular job classifications on each pay stub and, as required by the NYS Labor Law, written notice that includes the telephone number and address for the Department of Labor and a notice informing all workers of their right to contact the Department of Labor if a worker is not receiving the proper prevailing rate of wages and/or supplements for a worker's particular job classification.
 6. The Contractor shall be responsible for obtaining prevailing wage rate updates directly from the NYS Department of Labor, either by accessing its website <http://www.labor.state.ny.us> or a written request to the Bureau of Public Works.
- C. The minimum wage rates, if any, specified for apprentices shall apply only to persons working with the tools of the trade which such persons are learning under the direct supervision of journeyman mechanics as an individual registered in an apprenticeship program which is duly registered with the Commissioner of Labor of the State of New York in conformity with the NYS Labor Law. Except as otherwise required by law, the number of apprentices in each trade or occupation employed by the Contractor or any Subcontractor shall not exceed the number permitted by the applicable standards of the NYS Department of Labor, or, in the absence of such standards, the number permitted under the usual practice prevailing between the unions and the employers' association of the respective trades or occupations.
- D. All workers of the Contractor and all Subcontractors shall be paid in accordance with the provisions of the NYS Labor Law. The Contractor and all Subcontractors shall submit to the Owner original copies of the Contractor and Subcontractor Certifications form and Certified Payroll forms in accordance with payment procedures and otherwise upon request. The Contractor and all Subcontractors shall prepare and keep original payrolls or transcripts thereof in compliance with NYS Labor Law Section 220, subdivision 3-a, and shall file transcripts of such payrolls with the Owner as required by NYS Labor

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Law Section 220, subdivision 3-a. Filing the transcripts of such payrolls with the Owner as required by NYS Labor Law Section 220, subdivision 3-a is a condition precedent to payment of any sums due and owing Contractor or any Subcontractor for Work performed upon the Project.

- E. The Contractor agrees that, in case of underpayment of wages to any worker engaged in the Work by the Contractor or any Subcontractor, the Owner shall withhold from the Contractor out of payments due an amount sufficient to pay such worker the difference between the wages required to be paid under the Contract and the wages actually paid such worker for the total number of hours worked, and that the Owner may disburse such amount so withheld by the Owner for and on account of the Contractor to the worker to whom such amount is due. The Contractor further agrees that the amount to be withheld pursuant to this paragraph may be in addition to the amounts and percentages to be retained by the Owner pursuant to other provisions of the Contract.
- F. Pursuant to subdivision 3 of Section 220 and Section 220-d of the NYS Labor Law the Contract shall be forfeited and no sum paid for any Work done thereunder upon a Contractor's or Subcontractor's second conviction for willfully paying or providing less than:
 - 1. The stipulated wage scale or supplement as established by the fiscal officer.
 - 2. The stipulated minimum hourly wage scale and supplements as designated by the Commissioner of Labor of the State of New York.
- G. If the project is Federally funded in part or whole and therefore subject to the requirements of the Davis Bacon Act, the U.S. Department of Labor's government-wide implementation of the Act, or to Federal program legislation, the Contractor shall pay the higher of either NYS Department of Labor prevailing wage rates or wages established for the locality of the project by the U.S. Department of Labor.
- H. The Contractor specifically agrees that all workers engaged on the Site, whether employees of the Contractor, Subcontractor, or other person performing or contracting to do any part of the Work, shall be certified, prior to performing any Work, as having successfully completed at a minimum the OSHA 10-hour construction safety and health course as required by NYS Labor Law Section 220-h, unless additional certifications, courses or training are required by the project specific jurisdiction or as required to complete the Work of the Contract.

Section 16.04 – Nondiscrimination

- A. To the extent required by Article 15 of the NYS Executive Law (also known as the Human Rights Law) and all other NYS and United States statutory and constitutional non-discrimination provisions, the Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, sex (including gender identity or expression), national origin, sexual orientation, military status, age, disability, predisposing genetic characteristics, marital status or domestic violence status.
- B. If the Contractor is directed to do so by the Owner, the Contractor shall request each employment agency, labor union or authorized representative of workers with which the Contractor has a collective bargaining agreement or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, sex (including gender identity or expression), national origin, sexual orientation, military status, age, disability, predisposing genetic characteristics or marital status, and that such union or representative will affirmatively cooperate in the implementation of the Contractor's obligations under Articles 15 and 15A of the NYS Executive Law.

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- C. The Contractor shall state, in all solicitations or advertisements for employees, that in the performance of the Contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex (including gender identity or expression), sexual orientation, military status, age, disability, predisposing genetic characteristics or marital status.
- D. The Contractor shall include the provisions of paragraphs A, B, and C of this General Conditions Section 16.04 in every Subcontract and purchase order in such a manner that such provisions will be binding upon each Subcontractor and vendor as to the operations for the Contract to be performed within the State of New York.
- E. Pursuant to NYS Labor Law, Section 220-e, the Contractor specifically agrees:
 - 1. That in the hiring of employees for the performance of Work under the Contract or any subcontract hereunder, or for the manufacture, sale or distribution of materials, equipment or supplies hereunder, but limited to operations performed within the territorial limits of the State of New York, no Contractor, Subcontractor, nor any person acting on behalf of such Contractor or Subcontractor, shall by reason of race, creed, color, national origin, sex (including gender identity or expression), sexual orientation, military status, age, disability, predisposing genetic characteristics or marital status discriminate against any citizen of the State of New York who is qualified and available to perform the Work to which the employment relates.
 - 2. That no Contractor, Subcontractor, nor any person on behalf of such Contractor or Subcontractor shall, in any manner, discriminate against or intimidate any employee hired for the performance of Work under the Contract on account of race, creed, color, national origin, sex (including gender identity or expression), sexual orientation, military status, age, disability, predisposing genetic characteristics or marital status.
 - 3. That there may be deducted from the amount payable to the Contractor, by the Owner under the Contract, a penalty of fifty dollars (\$50.00) for each person for each calendar day during which such person was discriminated against or intimidated in violation of the terms of the Contract.
 - 4. That the Contract may be canceled or terminated by the Owner and all moneys due or to become due hereunder may be forfeited for a second or any subsequent violation of the terms or conditions of this Section 16.04 E of the Contract.

Section 16.05 - Domestic Steel

The Dormitory Authority is required to comply with all provisions of Title 4 of Article 9 of the NYS Public Authorities Law, including NYS Public Authorities Law Section 2603-a, and in accordance therewith, if the amount of the Contract exceeds \$100,000, the Owner requires that all structural steel, reinforcing steel or other major steel items to be incorporated in to the Work of the Contract be produced or made in whole or substantial part in the United States, its territories, or possessions. The Owner, in its discretion, may grant waivers of this requirement in accordance with NYS Public Authorities Law Section 2603-a. Contractor must request a waiver in writing and obtain a written waiver of this requirement from Owner before using in performance of the Contract any steel not produced or made in whole or substantial part in the United States, its territories, or possessions.

Section 16.06 - Failure to Comply with Article 16

The Owner will not be responsible for any Claim arising from compliance with this General Conditions Article 16.

ARTICLE 17—RECORDS/AUDITS/INVESTIGATIONS/ETHICS

Section 17.01 – Preparation of Records/Owner's Right to Inspect Records and to Audit

The Contractor shall, concurrently with performance of the Contract, prepare substantiating records regarding performance of the Contract, including records of Subcontractors and material suppliers. General Conditions Section 17.03 describes the records and other data to be maintained by Contractor, Subcontractors, and material suppliers. The Contractor shall maintain and keep, for a period of at least six (6) years after the date of payment of the final Application for Payment, all records and other data relating to the Work, including records of Subcontractors and material suppliers. Upon seven (7) calendar days' written notice, the Contractor shall make its records (including records of Subcontractors and material suppliers) available during normal business hours to the Owner or its authorized representative(s). Owner and its authorized representative(s) shall be entitled to inspect, examine, review and copy the Contractor's records, including but not limited to all documents, electronic records and recordings, (including records of Subcontractors and material suppliers) at the Owner's reasonable expense, within adequate workspace at the Contractor's facilities. The Owner shall also have the right to have Owner or its authorized representative audit all records and other data of the Contractor, Subcontractors and material suppliers relating to the Work.

Section 17.02- False Statements/Information/Disclosure

Failure to comply with General Conditions Section 17.01, providing False Representations, false statements or inaccurate information submitted in accordance with Contract Documents, including but not limited to, an Application for Payment, a Claim or a Change Order, a filing or system entry related to MWBE participation requirements or False Representations, false statements, or inaccurate information submitted to the Owner, or a determination that the Contractor participated in the kick-back of wages may result in one or more of the following actions:

- A. Termination of the Contract for cause, pursuant to General Conditions Section 11.01.
- B. Rejection of future bids or disapproval of a contract or subcontract.
- C. Withholding of payments.
- D. Criminal prosecution.
- E. Civil prosecution under Article XIII of the NYS State Finance Law – the New York False Claims Act.
- F. Rejection of a Claim or Change Order.
- G. Deduction of the Owner's cost of an audit from the Contract amount.

Section 17.03 - Owner's Right to Conduct Investigations

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- A. The Contractor agrees to cooperate fully and faithfully with any investigation, audit or inquiry conducted by the Owner.
- B. The Contractor shall grant the Owner the right to examine all books, records, files, accounts, computer records, documents, and correspondence, including electronically-stored information, in the possession or control of the Contractor, its subsidiaries and affiliated companies and any other company directly or indirectly controlled by the Contractor, relating to the Contract. These shall include, but not be limited to: Subcontracts; bid files; payroll and personnel records; cancelled checks; correspondence; memoranda; daily reports of Work completed that day; schedules; reports; audits; vendor qualification records; original estimate files; Change Order/Contract Amendment estimate files; detailed worksheets; Subcontractor, consultant and supplier proposals for both successful and unsuccessful bids; back-charge logs; any records detailing cash, trade, or volume discounts earned; insurance proceeds, rebates or dividends received; payroll and personnel records; tax returns; and the supporting documentation for the aforesaid books and records.
- C. At the Owner's request, said materials shall be provided in a computer readable format, where available. At the request of the Owner, the Contractor shall execute such documents, if any, as are necessary to give the Owner access to Contract-related books, documents, or records, which are, in whole or part, under control of the Contractor but not currently in the Contractor's physical possession. The Contractor shall not enter in to any agreement with a Subcontractor, consultant, or supplier, in connection with the Contract, that does not contain a right to audit clause in favor of the Owner. The Contractor shall assist the Owner in obtaining access to past and present Subcontractor, consultant, and supplier amendment/change order files (including detailed documentation covering negotiated settlements), accounts, computer records, documents, correspondence, and any other books and records in the possession of Subcontractors, consultants and suppliers pertaining to the Contract, and, if appropriate, enforce the right-to-audit provisions of such agreements.
- D. The Contractor shall assist the Owner in obtaining access to, interviews with, and information from all former and current persons employed and/or retained by the Contractor, for purposes of the Contract.
- E. The Contractor shall require each Subcontractor to include in all agreements that the Subcontractor may hereinafter enter into with any and all Subcontractors, consultants, and suppliers, in connection with the Contract, a right-to-audit clause in favor of the Owner conferring rights and powers of the type outlined in this General Conditions Section 17.03. The Contractor shall not enter in to any Subcontract with a Subcontractor in connection with the Contract that does not contain such a provision. The Contractor shall not make any payments to a Subcontractor, consultant, or supplier from whom the Contractor has failed to obtain and supply to the Owner complete, accurate, and truthful information in compliance with a request from the Owner to the Contractor.
- F. Any violation of the provisions of this General Conditions Article 17 shall justify termination of this Contract and may result in the Owner's rejection of the Contractor's bids or proposals for future contracts and the deduction of the Owner's cost of an audit from the Contract amount.

Section 17.04 - Disclosure of Criminal Investigation

- A. The Contractor shall immediately notify the Owner in the event that any owner, partner, director, officer or employee of the Contractor, or its affiliated companies as identified in the NYS Vendor Responsibility Questionnaire For Profit Construction (CCA-2), are subpoenaed or questioned in connection with any business-related criminal investigation, whether or not the owner, partner, director, officer or employee is, or is believed to be, the subject or target of such investigation, or is notified or otherwise learns that any owner, partner, director, officer or employee of the Contractor or its affiliated

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companies is under investigation for an alleged business-related violation of criminal law, or in the event that any premises or records of the Contractor are searched pursuant to a search warrant seeking evidence of a crime or crimes, unless otherwise precluded by law enforcement authorities.

- B. The Contractor shall immediately notify the Owner in the event that any owner, partner, director, officer or employee of the Contractor or its affiliated companies as identified in the NYS Vendor Responsibility Questionnaire For Profit Construction (CCA-2), the firm itself, or one of its affiliated companies is indicted or charged in an accusatory instrument for any business-related violation of local, state or federal criminal law, unless otherwise precluded by law enforcement authorities.
- C. In the event that any owner, partner, director, officer, or employee of the Contractor is indicted or charged in an accusatory instrument for any business-related violation of local, state, or federal criminal law relating to this Contract or any other Dormitory Authority contract, the Owner may require the Contractor to remove said owner, partner, director, officer, or employee from any direct involvement in the affairs of the Contractor as it relates to this Contract and all other Dormitory Authority contracts until the criminal matter is resolved. In the event that any owner, partner, director, officer, or employee of the Contractor is convicted of a business-related violation of local, state, or federal criminal law, the Owner may require the Contractor to permanently remove said individual from any direct involvement in the affairs of this Contract and all other Dormitory Authority contracts.
- D. In the event that the Contractor or any owner, partner, director, officer, or employee of the Contractor is convicted or enters into an agreement as a remedy to the alleged commission of a criminal act of a business-related violation of local, state, or federal criminal law or regulatory violation, the Owner may schedule a hearing with the Contractor to determine the Contractor's responsibility to continue work under this Contract and other Dormitory Authority contracts. Following this hearing, the Owner may, at its sole discretion, take one or more of the following actions:
 - 1. Terminate this Contract.
 - 2. Require the Contractor, at its own expense, to hire an independent private-sector inspector general to monitor its activities, institute procedures and conduct internal inquiries, in a manner prescribed by the Owner.
 - 3. Increase retainage to an amount not to exceed ten percent (10%).
 - 4. Take any other remedial action deemed appropriate.

Section 17.05 - Anti-Riot Provisions

- A. The Contractor agrees that no part of the Contract funds shall be used to make payments, give assistance, or supply services, in any form, to any individual convicted in any federal, state, or local court of competent jurisdiction for inciting, promoting, or carrying on a riot, or engaging in any group activity resulting in material damage to property or injury to persons found to be in violation of federal, state or local laws designed to protect persons or property.
- B. The Contractor and each Subcontractor shall notify their employees of all rules and regulations adopted pursuant to Article 129-A of the NYS Education Law. The Contractor shall post notices containing the text of the aforementioned rules and regulations at the Site.

Section 17.06 - Ethical Conduct

- A. Officers and employees of the Owner are bound by Sections 73, 73-a and 74 of the NYS Public Officers Law. In addition, no officer, employee, architect, attorney, engineer, inspector, or consultant of or for the Owner authorized on behalf of the Owner to exercise any legislative, executive, administrative, supervisory, or other similar functions in connection with the Contract or the Work, shall become personally interested, directly or indirectly, in the Contract, material supply contract, subcontract, insurance contract, or any other contract pertaining to the Work.
- B. Section 73(5) of the NYS Public Officers Law expressly prohibits the Contractor, or its agents, from directly or indirectly offering or giving any gift having more than nominal value to an employee of the Owner under circumstances in which it could be reasonably inferred the gift was intended to influence the employee in the performance of their official duties or was intended as a reward for the employee's official action.
 - 1. In addition to the prohibition of Section 73(5) of the NYS Public Officers Law, the Dormitory Authority has a "zero tolerance" policy with respect to the solicitation, acceptance, or receipt of gifts from disqualified sources. Therefore, the Contractor and its agents shall refrain from offering or giving anything of value to an employee of the Owner. Employees of the Owner may not solicit any gift, gratuity, stipend, or thing of value from the Contractor or its agents. Violations of these gift provisions may be grounds for immediate Contract termination and/or referral for civil action or criminal prosecution.
- C. To promote a working relationship with the Owner based on ethical business practices, the Contractor is expected to:
 - 1. Furnish all goods, materials and services to the Owner as contractually required and specified.
 - 2. Submit complete and accurate reports to the Owner and its representatives as required.
 - 3. Not seek, solicit, demand or accept any information, verbal or written, from the Owner or its representatives that provides an unfair advantage over a competitor.
 - 4. Not engage in any activity or course of conduct that restricts open and fair competition on Owner-related projects and transactions.
 - 5. Not engage in any course of conduct with Owner employees or its representatives that constitutes a conflict of interest, in fact or in appearance.
 - 6. Not offer or give any unlawful gifts or gratuities, or engage in bribery or other criminal activity.
- D. The Owner encourages the Contractor to advance and support ethical business conduct and practices among its directors, officers, and employees, preferably through the adoption of corporate ethics awareness training programs and written codes of conduct.
- E. Although the Contractor may employ relatives of Owner employees, the Owner shall be made aware of such circumstances as soon as possible, preferably in writing, to ensure a conflict of interest situation does not arise. The Owner reserves the right to request that the Contractor modify the work assignment of a relative of an Owner employee where a conflict of interest, or the appearance thereof, is deemed to exist.

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- F. The Contractor may hire former employees of the Owner. However, as a general rule, former employees of the Owner may neither appear nor practice before the Owner, nor receive compensation for services rendered on a matter before the Owner, for a period of two years following their separation from service with the Owner. In addition, former employees of the Owner are subject to a “lifetime bar” from appearing before the Owner or receiving compensation for services regarding any transaction in which they personally participated or which was under their active consideration during their tenure with the Owner.
- G. The Contractor agrees to notify the Owner’s Office of Internal Affairs at 518-257-3193 of any activity by an employee of the Owner that is inconsistent with the contents of this General Conditions Section 17.06.
- H. Any violation of this General Conditions Section 17.06 shall justify termination of this Contract and may result in Owner’s rejection of the Contractor’s bids or proposals for future agreements.

Section 17.07 – Continuing Integrity

- A. The Contractor shall, at all times during the Contract term, remain responsive and responsible. The Contractor shall also monitor all Subcontractors for responsiveness and responsibility at all times during the Contract term. The Contractor agrees, if requested by the President of Owner or his or her designee, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity. The Contractor shall immediately notify Owner of any material or adverse information pertaining to the Contractor or any Subcontractor, regardless of tier.
- B. The President of Owner or his or her designee, in his or her sole discretion, reserves the right to suspend any or all activities under this Contract, at any time, when he or she discovers information that calls in to question the responsibility of Contractor. In the event of such suspension, Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, Contractor shall comply with the terms of the suspension order. Contract activity may resume at such time as the President of Owner or his or her designee issues a written notice authorizing a resumption of performance under the Contract.
- C. Notwithstanding any other provision of this Contract, upon written notice to Contractor, and a reasonable opportunity to be heard with the appropriate Owner officials or staff, the Contract may be terminated by the President of Owner or his or her designee at Contractor’s expense where Contractor is determined by the President of Owner or his or her designee to be non-responsible. In such event, the President of Owner or his or her designee may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for the breach.

Section 17.08 – Iran Divestment

- A. By entering into this Contract, Contractor certifies, under the penalties of perjury, that Contractor is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the NYS State Finance Law. Contractor further certifies that Contractor will not utilize on this Contract any subcontractor that is identified on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the NYS State Finance Law.
- B. During this Contract, should Owner receive information that a person (as defined in NYS State Finance Law §165-a) is in violation of the above-referenced certifications, Owner will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its

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engagement in the investment activity which is in violation of the Act within 90 days after the determination of such violation, then Owner shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not limited to, seeking compliance, recovering damages, or declaring the Contractor in default.

ARTICLE 18 -- 2005 PROCUREMENT LOBBYING LAW

Section 18.01 - Procurement Lobbying Law

Bidders shall affirm their understanding of and agree to comply with NYS State Finance Law § 139-j (3) and § 139-j (6) (b), certify their compliance with NYS State Finance Law § 139-k (5), disclose prior non-responsibility determinations under NYS State Finance Law § 139-j, and shall certify that the information they provide with respect to NYS State Finance Law § 139-j and § 139-k is complete, true, and accurate. Contractor hereby reaffirms its understanding of an agreement to comply with NYS State Finance Law § 139-j (3) and § 139-j (6) (b), re-certifies its compliance with NYS State Finance Law § 139-k (5) and recertifies that the information it provided with respect to NYS State Finance Law § 139-j and § 139-k is complete, true, and accurate.

Section 18.02 - Contractor's Certifications

For any contract \$15,000 or more each Contractor shall submit, with its bid, on the form provided herewith, the *2005 Procurement Lobbying Law – Certification*, pursuant to NYS State Finance Law § 139-j and § 139-k. The information contained in the *2005 Procurement Lobbying Law – Certification*, pursuant to NYS State Finance Law § 139-j and § 139-k will serve as an informational resource to aid the Owner in making an award determination.

Section 18.03 - Termination Provisions

The Owner reserves the right to terminate this Contract in the event it is found that the certification filed by the Contractor in accordance with NYS State Finance Law § 139-j and § 139-k, as such may be amended or modified, was intentionally false or intentionally incomplete. Upon such finding, the Owner may exercise its right pursuant to General Conditions Section 11.01 – Termination for Cause.

ARTICLE 19 -- EXECUTIVE ORDER No. 125

Section 19.01 - Determination of Contractor Responsibility

In order to assist the Owner in determining the responsibility and reliability of the lowest bidder for the Contract and to effectuate the directives of Executive Order No. 125, dated May 22, 1989, (9 NYCRR §4.125) the Council of Contracting Agencies has adopted procedures to collect and exchange relevant information among contracting agencies.

Section 19.02 – NYS Vendor Responsibility Questionnaire

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- A. For any Contract valued at \$10,000 or more, the NYS Vendor Responsibility Questionnaire For Profit Construction (CCA-2) for the Contractor or for any Subcontractor shall be submitted as requested by the Owner. Owner may request an updated NYS Vendor Responsibility Questionnaire For Profit Construction (CCA-2) for the Contractor or for any Subcontractor as often as the Owner, in its sole and exclusive discretion, deems necessary to carry out the Owner's duties and responsibilities under this Contract.
- B. The information contained in the NYS Vendor Responsibility Questionnaire For Profit Construction (CCA-2) will serve as an informational resource to aid the Owner in making an award determination and in making other determinations for this Contract.

ARTICLE 20 -- OPPORTUNITY PROGRAMS

Section 20.01 - General Provisions

- A. The Dormitory Authority is required to implement the provisions of NYS Executive Law Article 15-A and Parts 140 through 145 of Title 5 of the NYCRR for all State contracts (as defined in such statute and regulations) with a value:
 - 1. in excess of \$25,000 for labor, services, equipment, materials, or any combination of the foregoing; or
 - 2. in excess of \$100,000 for real property renovations and construction.
- B. The Contractor agrees, in addition to any other nondiscrimination provision of the Contract and at no additional cost to the Owner, to fully comply and cooperate with the Owner in the implementation of NYS Executive Law ARTICLE 15-A, PARTICIPATION BY MINORITY GROUP MEMBERS AND WOMEN WITH RESPECT TO STATE CONTRACTS, and the regulations promulgated thereunder. These requirements include: equal employment opportunities for minority group members and women (EEO), and contracting opportunities for NYS certified minority and women-owned business enterprises (MWBES). The Contractor's demonstration of good faith efforts pursuant to 5 NYCRR § 142.8 shall be a part of these requirements. These provisions shall be deemed supplementary to, and not in lieu of the nondiscrimination provisions required by NYS Executive Law Article 15 (the Human Rights Law) and other applicable federal, state and local laws.
- C. Failure to comply with all requirements in this General Conditions Article 20 may result in a finding of non-responsiveness, non-responsibility, breach of contract or any combination of the foregoing leading to the assessment of liquidated damages pursuant to General Conditions Section 20.06 and other remedies available to the Owner pursuant to the Contract and applicable law.

Section 20.02 – Equal Employment Opportunity (EEO)

- A. The provisions of NYS Executive Law Article 15-A, and the rules and regulations promulgated thereunder pertaining to equal employment opportunities for minority group members and women shall apply to the Contract.
- B. The Contractor shall:
 - 1. Undertake or continue, and ensure each Subcontractor shall undertake or continue, existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age,

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disability, or marital status. For these purposes, EEO shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation.

2. Submit an EEO policy statement to the Owner within seventy-two (72) hours after the date of the Letter of Intent to award the Contract.
3. Adopt a model EEO policy statement and require each Subcontractor to adopt a model EEO policy statement if the Contractor or Subcontractor does not have an existing EEO policy statement, and if the Owner requires the Contractor or Subcontractor to adopt a model EEO policy statement.
4. Have a Contractor's EEO policy statement that shall include the following language:
 - a. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, or marital status, will undertake or continue existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination, and shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force.
 - b. The Contractor shall state in all solicitations or advertisements for employees that, in the performance of the Contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability, or marital status.
 - c. The Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union, or representative will not discriminate on the basis of race, creed, color, national origin, sex age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the Contractor's obligations herein.
5. The Contractor shall include the provisions of paragraphs a. through c. of this General Conditions Section 20.02 B. 4. and Subdivision E of this General Conditions Section 20.02, which provides for relevant provisions of the Human Rights Law, in every Subcontract in such a manner that the requirements of these provisions will be binding upon each Subcontractor as to Work in connection with the Contract.

C. To ensure continuous compliance with General Conditions Section 20.02:

1. The Contractor shall submit a Workforce Utilization Report, and shall require each Subcontractor to submit a Workforce Utilization Report, in such form as shall be required by the Owner on a monthly basis during the term of the Contract.
2. Separate forms shall be completed by the Contractor and each Subcontractor.
3. Pursuant to Executive Order 162 (9 NYCRR 8.162) dated January 9, 2017, the Contractor and its Subcontractors are required to submit monthly *E.O. 162 Workforce Utilization Reports* for contracts with a total contract value of Twenty-Five Thousand 00/100 Dollars (\$25,000.00) or more. All *E.O. 162 Workforce Utilization Reports* are to be submitted within 10 days of the end of each month by following the online reporting process set forth in section 20.02 (4). The *E.O. 162*

GENERAL CONDITIONS

Workforce Utilization Reports will require the Contractor and its and Subcontractors, among other things, report the gross wages paid to each of their employees for the work performed by such employees in connection with the Contract.

4. For monthly reporting in connection with Executive Order 162, reports are to be submitted electronically as follows:
 - a. Log-in (<https://ny.newnycontracts.com>) or visit the NYSCS Account Look Up (<https://ny.newnycontracts.com/frontend/usersearchpublic.asp>) and follow the on-screen directions to look up your firm's account and then access the secure System. Contact Customer Support via any of the System links if you have any questions while attempting to access your account.
 - b. Go to View>> My Workforce Audits.
 - c. View Workforce Audits by status, dates, contract, and contract type (Prime/Subcontractor).
 - d. The System will notify contractors to log in to review and record the workforce details for the applicable audit.
 - e. Complete all required reporting on a timely basis.
- D. The Contractor shall comply with the provisions of the NYS Human Rights Law, and all other State and Federal statutory and constitutional non-discrimination provisions. The Contractor and each Subcontractor shall not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex, national origin, sexual orientation, military status, age, disability, predisposing genetic characteristic, marital status, or domestic violence victim status, and shall also follow the requirements of the NYS Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest.

Section 20.03 – Opportunities for Minority and Women-Owned Business Enterprises (MWBE)

- A. The Owner has established goals for the participation in this Contract of NYS certified minority-owned business enterprises (“MBE”) and NYS certified women-owned business enterprises (“WBE” and collectively with MBEs, “MWBE”). The goals (collectively, MWBE Contract Goals) are set forth in the Information for Bidders Section 8.0 – Opportunity Programs Requirements.
- B. The Contractor represents and warrants that, as a condition for award of the Contract, the Contractor has submitted a Statewide Utilization Management Plan (“SUMP”) via the NYS Contract System (NYSCS) which lists all proposed Subcontractors including an identification of the NYS certified MWBE subcontractors and suppliers the Contractor intends to use to perform the Work of the Contract and to achieve the MWBE Contract Goals established in the Contract Documents. In addition, or alternatively, Contractor may have submitted a request for a waiver. Prior to award of the Contract, the Owner approved Contractor’s plan to achieve the MWBE Contract Goals established in the Contract Documents (MWBE Utilization Plan) to the extent the Owner did not approve Contractor’s request for a waiver of part or all of the MWBE Contract Goals. Owner approval of the MWBE Utilization Plan approves a Subcontractor only for the purpose of the MWBE Utilization Plan.
- C. Contractor agrees to adhere to the MWBE Utilization Plan in the performance of the Contract. Contractor shall not change the Utilization Plan without the prior written approval of the Owner. Contractor further agrees that failure to adhere to the MWBE Utilization Plan shall constitute a material breach of the Contract and upon such breach, the Owner shall be entitled to any remedy provided in the Contract or by law, including but not limited to a finding that the Contractor is non-responsible.

GENERAL CONDITIONS

- D. The Contractor understands that only sums paid to MWBEs for the performance of a commercially useful function, as that term is defined in 5 NYCRR § 140.1 may be applied towards the achievement of the applicable MWBE Contract Goal. The portion of a subcontract with an MWBE serving as a supplier that shall be deemed to represent the commercially useful function performed by the MWBE shall be 60% of the total value of the subcontract. The portion of a subcontract with an MWBE serving as a broker that shall be deemed to represent the commercially useful function performed by the MWBE shall be the monetary value for fees, or the markup percentage, charged by the MWBE. The Owner will audit the Contractor's efforts to achieve the MWBE Contract Goals through the NYSCS.

Section 20.04 - Good Faith Efforts

- A. The Contractor shall document good faith efforts pursuant to 5 NYCRR § 142.5 to provide meaningful participation by MWBEs as Subcontractors (which includes material suppliers, other vendors, and others; see definition of Subcontractor in General Conditions Article 1 - Definitions) in the performance of the Contract, to comply with the requirements of the Contract and to enable the Owner to determine compliance with the provisions of this General Conditions Article 20. Guidelines for documentation of good faith efforts are at <https://www.dasny.org/forms> under MWSBE.
- B. If the Contractor fails to adequately document good faith efforts, it may result in a finding of non-compliance.

Section 20.05 - Waivers

- A. If the Contractor, after making good faith efforts satisfactory to the Owner, is unable to achieve the MWBE Contract Goals, the Contractor may submit a request for a waiver through the NYSCS, or a non-electronic method provided by the Owner. The request for a waiver must be supported by evidence of the good faith efforts by the Contractor to achieve the maximum feasible MWBE participation towards the applicable MWBE Contract Goals. If the documentation included with the waiver request is complete, the Owner shall evaluate the request and issue a written notice of acceptance or denial within twenty (20) business days of receipt.
- B. If the Owner, upon review of the SUMP, the MWBE Utilization Plan, the NYSCS and any other relevant information, determines that the Contractor is failing or refusing to comply with the MWBE Contract Goals and no waiver has been issued in regard to such non-compliance, the Owner may issue a notice of deficiency to the Contractor. The Contractor shall respond to the notice to deficiency within seven (7) business days of receipt. Such response may include a request for partial or total waiver of MWBE Contract Goals.

Section 20.06 – Damages - MWBE Participation

- A. If the Owner determines that the Contractor is not in compliance with the requirements of this General Conditions Article 20 and the Contractor refuses to comply with the requirements of this General Conditions Article 20, or if the Contractor is found to have willfully and intentionally failed to comply with the MWBE Contract Goals, then: (1) the Contractor shall be obligated to pay the Owner liquidated damages; or (2) the Contractor shall be obligated to pay the Owner other appropriate damages; or (3) the Owner shall receive one or more other appropriate remedies, unless the Owner elects to pursue its remedies under NYS Executive Law Section 316. If the Owner declines to pursue its remedies under NYS Executive Law Section 316, the Owner may elect to pursue one or more of liquidated damages, other appropriate damages, and one or more other appropriate remedies.

GENERAL CONDITIONS

- B. If the Owner decides to assess liquidated damages, the Contractor shall be obligated to pay to the Owner liquidated damages in an amount equal to the difference between all sums identified for payment to MWBEs if the Contractor had achieved the MWBE Contract Goals and all sums actually paid to MWBEs for performance of Work under the Contract. If such liquidated damages have not been withheld by the Owner, the Contractor shall pay such liquidated damages to the Owner within sixty (60) days after they are assessed. provided, however, that if the Contractor has filed a complaint with the Director of the Division of Minority and Women's Business Development pursuant to 5 NYCRR §142.2, liquidated damages shall be payable only in the event of a determination adverse to the Contractor following the complaint process. The liquidated damages are intended to compensate the Owner only for the Owner's damage if the Owner determines that the Contractor is not in compliance with the requirements of General Conditions Sections 20.03, 20.04 and 20.05 and the Contractor refuses to comply with the requirements of General Conditions Sections 20.03, 20.04 and 20.05, or if the Contractor is found to have willfully and intentionally failed to comply with the MWBE Contract Goals. In addition, the Contractor shall be liable to the Owner to the fullest extent permitted by law for:
- a. whatever other appropriate damages the Owner may incur; or
 - b. any other appropriate remedy to which the Owner may be entitled as a result of the Contractor's refusal to comply with the requirements of this General Conditions Article 20 outside the requirements of General Conditions Sections 20.03, 20.04, 20.05 and the MWBE Contract Goals.

Other appropriate damages include, but are not limited to, the expenses for personnel, supplies and overhead incurred by the Owner to administer and enforce the requirements of this General Conditions Article 20 other than the requirements of General Conditions Sections 20.03, 20.04, 20.05 and the MWBE Contract Goals.

Section 20.07 – Reporting to Owner

The Contractor shall complete the reports and submit as indicated to establish and update EEO requirements during the life of the Contract. Reports not submitted at such time shall be cause for the Owner to delay payment to the Contractor. The listed reports are a requirement of the Contract and copies are included in the Contract Documents and template forms are also available on the Dormitory Authority's web site. *The Contractor shall submit to the Owner all executed agreements and purchase orders for ALL MWBE/SDVOB subcontractors/suppliers who were approved on the Utilization Plan no later than 30 days after award of the Contract.*

ARTICLE 21- SERVICE-DISABLED VETERAN OWNED BUSINESSES

Section 21.01 – General Provisions

Article 17-B of the NYS Executive Law provides for more meaningful participation in public procurement by certified Service-Disabled Veteran – Owned Businesses (SDVOB), thereby further integrating such businesses in to New York State's economy. The Dormitory Authority recognizes the need to promote the employment of service-disabled veterans and to ensure that certified SDVOBs have opportunities for maximum feasible participation in the performance of Dormitory Authority contracts.

Section 21.02 – Contract with Goals

- A. If the Information for Bidders established an overall goal for SDVOB participation in this Contract and Contractor submitted an SDVOB Utilization Plan that was accepted by the Dormitory Authority, Contractor shall follow the accepted SDVOB Utilization Plan. Contractor, by award of the Contract,

GENERAL CONDITIONS

certified that Contractor shall follow the submitted and accepted SDVOB Utilization Plan for the performance of SDVOBs on the Contract.

- B. Contractor shall not change the accepted SDVOB Utilization Plan without the prior written consent of the Dormitory Authority. Any modifications or changes to the accepted SDVOB Utilization Plan after award of the Contract to the Contractor shall be reported to the Dormitory Authority on a revised SDVOB Utilization Plan. As part of a revised SDVOB Utilization Plan, the Contractor may request a partial or total waiver of the goal for SDVOB participation but such request must be made prior to submission of the Application for Payment for the final payment on the Contract. Contractor shall make and shall document good faith efforts to provide meaningful participation by SDVOBs as subcontractors or suppliers in the performance of the Contract. The revised SDVOB Utilization Plan is not effective unless and until it is accepted by the Dormitory Authority. If the revised SDVOB Utilization Plan is not accepted by the Dormitory Authority, the Dormitory Authority shall issue a notice of deficiency and the Contractor shall proceed as set forth in paragraph D of this General Conditions Section 21.02
- C. Contractor shall report to the Dormitory Authority Monthly SDVOB Contractor Compliance during the Contract documenting the preceding month's progress towards implementing the accepted SDVOB Utilization Plan and achieving the SDVOB goals for the Contract. This information shall be submitted to the Dormitory Authority in the manner and at the times directed by the Dormitory Authority.
- D. If the Dormitory Authority, upon review of the SDVOB Utilization Plan and the Monthly SDVOB Contractor Compliance reports determines that the Contractor is failing or refusing to comply with the Contract SDVOB goals and no waiver has been issued with respect to such non-compliance, the Dormitory Authority may issue a notice of deficiency to the Contractor. The Contractor shall respond to the notice of deficiency within seven (7) business days of receipt. Such response may include a request for partial or total waiver of the Contract SDVOB goals.
- E. Contractor shall make and shall document its good faith efforts to utilize SDVOBs in the performance of the Contract. Evidence of required good faith efforts includes but is not limited to:
 - 1. Copies of solicitations to SDVOBs and any responses thereto;
 - 2. Explanation of the specific reason(s) each SDVOB responding to a Contractor's solicitation was not selected;
 - 3. Dates of any pre-bid, pre-award or other meetings attended by Contractor, if any, scheduled by the Dormitory Authority with certified SDVOBs which the Dormitory Authority determined were capable of fulfilling the SDVOB goals in the Contract;
 - 4. Information describing the specific steps undertaken to reasonably structure the scope of subcontracts and material orders for the purpose of subcontracting with, or obtaining materials from, SDVOBs;
 - 5. Other information relevant to the waiver request.
- F. Contractor's failure to use SDVOBs in accordance with the accepted SDVOB Utilization Plan or any accepted revised SDVOB Utilization Plan shall be a material breach of the Contract and upon such breach, the Dormitory Authority shall be entitled to any remedy provided in the Contract, by law or regulation or at law or in equity, including but not limited to a finding the Contractor is non-responsible. If the Dormitory Authority finds the Contractor willfully and intentionally fails to comply with the

GENERAL CONDITIONS

Contract SDVOB goals, the Contractor shall pay damages to the Dormitory Authority as set forth in 9 NYCRR § 252.2(s).

Section 21.03 – Contract with No Goals

If the Information for Bidders does not establish an overall goal for SDVOB participation in this Contract, Contractors are still strongly encouraged and expected to consider SDVOBs in the fulfillment of the requirements of the Contract in recognition of the service and sacrifices made by service-disabled veterans and in recognition of their economic activity in doing business in New York State. The Contractor is encouraged to make good faith efforts to promote and assist in the participation of SDVOBs in performance of the Contract as Subcontractors.

Exhibit "A"

RELEASE FORM
REDUCTION OF RETAINAGE
DORMITORY AUTHORITY STATE OF NEW YORK

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RELEASE FORM
REDUCTION OF RETAINAGE
DORMITORY AUTHORITY STATE OF NEW YORK

TO ALL TO WHOM THESE PRESENTS SHALL COME, OR MAY CONCERN, GREETING: Know ye,

that _____ hereinafter referred to as the

Contractor for and in consideration of the sum of _____

_____ dollars (\$ _____), lawful money of the

United States of America to it in hand heretofore or now paid by the Dormitory Authority, the receipt whereof

is hereby acknowledged, has remised, released, and forever discharged and by these presents does, for itself,

its successors and its assigns, remise, release, and forever discharge the said Dormitory Authority, its

members, officers, agents, employees, successors, and assigns of and from all claims of liability to the

Contractor for anything furnished or performed in connection with, or arising out of a contract dated the

_____ day of _____, between the Dormitory Authority and the Contractor in

relation to the construction of _____

or out of the work covered by said contract or arising out of said contract including, but not limited to, all

claims for extra work or by reason of extra work, labor or materials, or additional work or by reason of

additional work, labor, or materials furnished or performed in connection with, relating to, or arising out of

the subject matter of said contract, and any prior act, neglect, or default on the part of the Dormitory

Authority or any of its members, officers, agents, employees, successors, or assigns in connection therewith,

and all manner of action and actions, cause and causes of action, suits, debts, dues, sums of money, accounts,

reckonings, bonds, bills, specialties, covenants, contracts, controversies, agreements, promises, variances,

trespasses, damages, judgments, extents, executions, claims and demands whatsoever in law or in equity,

which against the said Dormitory Authority, its members, officers, agents, employees, successors,

RELEASE FORM
REDUCTION OF RETAINAGE
DORMITORY AUTHORITY OF THE STATE OF NEW YORK
PAGE -2-

and assigns the Contractor ever had, now has, or which its successors or assigns hereafter can, shall or may have for, upon or by reason of any matter, cause or thing whatsoever from the beginning of the world to the day of the date of these presents, except the undersigned hereby specifically excludes from this release and hereby retains and reserves any and all right in connection with and concerning retention being held by the

Dormitory Authority in the amount of _____

_____ dollars (\$ _____), and a claim for damages in the amount of _____

_____ dollars (\$ _____),

presented to the Dormitory Authority. Failure to enter an amount for the claim for damages in the space provided above shall be deemed to mean zero or no damages.

The Contractor further acknowledges that neither the aforesaid payment nor acceptance by the Dormitory Authority of the work covered by the aforementioned contract shall in any way or manner operate as or constitute a release or waiver to its obligations, undertakings, or liabilities, under said contract or in any way affect or limit the same. This release may not be changed orally.

RELEASE FORM
REDUCTION OF RETAINAGE
DORMITORY AUTHORITY OF THE STATE OF NEW YORK
PAGE -3-

IN WITNESS WHEREOF, the said Contractor has caused these presents to be signed by its duly authorized officer on the _____ day of _____, 20_____.

NAME OF CONTRACTOR

BY: _____

STATE OF _____

COUNTY OF _____

SS:

On this _____ day of _____, in the year 20_____
before me personally came _____ to me know, who, being by me
duly sworn, did depose and say that he resides at _____;
that he is the _____ of the _____
_____, the corporation described in and which executed
the above instruments; and that he signed his name thereto by order of the board of directors of said
corporation.

NOTARY PUBLIC

CORPORATE ACKNOWLEDGMENT

Page 3.1

State of New York)
) ss.:
County of _____)

On the _____ day of _____ in the year _____ before me personally came _____ to me known, who, being by me duly sworn, did depose and say that (he/she/they) reside(s) in _____; that (he/she/they) (is /are) the president /other officer/director/attorney in fact duly appointed) of the _____

(name of corporation)

the corporation described in and which executed the above instrument; and that (he/she/they) signed (his/her/their) name(s) thereto by authority of the board of directors of said corporation.

Notary Public Signature
My Commission Expires _____

Cross out words that do not apply in parentheses.

UNIFORM ACKNOWLEDGMENT

(For Use by All Persons and Entities Other Than Corporations)

State of New York)
) ss.:
County of _____)

On the _____ day of _____ in the year _____ before me, the undersigned, a Notary Public in and for said State, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) (is/are) subscribed to the within instrument and acknowledged to me that (he/she/they) executed the same in (his/her/their) capacity(ies), and that by (his/her/their) signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

CONSENT OF SURETY
REDUCTION OF RETAINAGE
DORMITORY AUTHORITY OF THE STATE OF NEW YORK
PAGE -4-

Contract Between the Dormitory Authority and _____

(hereinafter referred to as Contractor)

For _____ (Project)

Dated _____

In accordance with the provisions of the Contract, indicated above, between the Owner and the Contractor,
the (here insert the name and address of Surety Company)

(hereinafter referred to as Surety Company),

As Surety on the Performance and Labor & Material Payment Bonds of the Contractor and the Surety
Company, issued as part of the said Contract, hereby approves of reduction of retainage on the Contract,
and agrees that any such payment to the Contractor shall not relieve the Surety Company of any of its
obligations to the Dormitory Authority, as set forth in the said bonds.

IN WITNESS WHEREOF,

the Surety Company has hereunto set its hand this _____ day of _____ 20____

Surety Company

Signature of Authorized Representative

Title

SURETY ACKNOWLEDGMENT

PAGE -5-

State of _____)
County of _____) ss.:

On this _____ day of _____, in the year _____, before me personally came _____ to me known, who, being by me duly sworn, did depose and say that (s)he resides in _____; that (s)he is the Attorney of the _____, the corporation described in and which executed the attached instrument; that (s)he knows the seal of the said corporation; that the seal affixed to said instrument is such corporate seal; and that it was so affixed by order of the Board of Directors of the said corporation, and that he signed his name thereto by like order.

Notary Public
My commission expires _____



Kathy Hochul, Governor

Roberta Reardon, Commissioner

Dormitory Authority
Dominick Donadio
515 Broadway
Albany NY 12207

Schedule Year 2024 through 2025
Date Requested 09/25/2024
PRC# 2024012224

Location Broome DDSO
Project ID# 354360
Project Type Parking Lot Expansion Project

PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

Attached is the current schedule(s) of the prevailing wage rates and prevailing hourly supplements for the project referenced above. A unique Prevailing Rate Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2024 through June 2025. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website www.labor.ny.gov. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

It is the responsibility of the contracting agency or its agent to annex and make part, the attached schedule, to the specifications for this project, when it is advertised for bids and /or to forward said schedules to the successful bidder(s), immediately upon receipt, in order to insure the proper payment of wages.

Please refer to the "General Provisions of Laws Covering Workers on Public Work Contracts" provided with this schedule, for the specific details relating to other responsibilities of the Department of Jurisdiction.

Upon completion or cancellation of this project, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: _____ Date Cancelled: _____

Name & Title of Representative: _____

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240

General Provisions of Laws Covering Workers on Article 8 Public Work Contracts

Introduction

The Labor Law requires public work contractors and subcontractors to pay laborers, workers, or mechanics employed in the performance of a public work contract not less than the prevailing rate of wage and supplements (fringe benefits) in the locality where the work is performed.

Responsibilities of the Department of Jurisdiction

A Department of Jurisdiction (Contracting Agency) includes a state department, agency, board or commission; a county, city, town or village; a school district, board of education or board of cooperative educational services; a sewer, water, fire, improvement and other district corporation; a public benefit corporation; and a public authority awarding a public work contract.

The Department of Jurisdiction (Contracting Agency) awarding a public work contract MUST obtain a Prevailing Rate Schedule listing the hourly rates of wages and supplements due the workers to be employed on a public work project. This schedule may be obtained by completing and forwarding a "Request for wage and Supplement Information" form (PW 39) to the Bureau of Public Work. The Prevailing Rate Schedule MUST be included in the specifications for the contract to be awarded and is deemed part of the public work contract.

Upon the awarding of the contract, the law requires that the Department of Jurisdiction (Contracting Agency) furnish the following information to the Bureau: the name and address of the contractor, the date the contract was let and the approximate dollar value of the contract. To facilitate compliance with this provision of the Labor Law, a copy of the Department's "Notice of Contract Award" form (PW 16) is provided with the original Prevailing Rate Schedule.

The Department of Jurisdiction (Contracting Agency) is required to notify the Bureau of the completion or cancellation of any public work project. The Department's PW 200 form is provided for that purpose.

Both the PW 16 and PW 200 forms are available for completion [online](#).

Hours

No laborer, worker, or mechanic in the employ of a contractor or subcontractor engaged in the performance of any public work project shall be permitted to work more than eight hours in any day or more than five days in any week, except in cases of extraordinary emergency. The contractor and the Department of Jurisdiction (Contracting Agency) may apply to the Bureau of Public Work for a dispensation permitting workers to work additional hours or days per week on a particular public work project.

Wages and Supplements

The wages and supplements to be paid and/or provided to laborers, workers, and mechanics employed on a public work project shall be not less than those listed in the current Prevailing Rate Schedule for the locality where the work is performed. If a prime contractor on a public work project has not been provided with a Prevailing Rate Schedule, the contractor must notify the Department of Jurisdiction (Contracting Agency) who in turn must request an original Prevailing Rate Schedule from the Bureau of Public Work. Requests may be submitted by: mail to NYSDOL, Bureau of Public Work, State Office Bldg. Campus, Bldg. 12, Rm. 130, Albany, NY 12226; Fax to Bureau of Public Work (518) 485-1870; or electronically at the NYSDOL website www.labor.ny.gov.

Upon receiving the original schedule, the Department of Jurisdiction (Contracting Agency) is REQUIRED to provide complete copies to all prime contractors who in turn MUST, by law, provide copies of all applicable county schedules to each subcontractor and obtain from each subcontractor, an affidavit certifying such schedules were received. If the original schedule expired, the contractor may obtain a copy of the new annual determination from the NYSDOL website www.labor.ny.gov.

The Commissioner of Labor makes an annual determination of the prevailing rates. This determination is in effect from July 1st through June 30th of the following year. The annual determination is available on the NYSDOL website www.labor.ny.gov.

Payrolls and Payroll Records

Every contractor and subcontractor MUST keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. As per Article 6 of the Labor law, contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemporaneous, true, and accurate payroll records. At a minimum, payrolls must show the following information for each person employed on a public work project: Name, Address, Last 4 Digits of Social Security Number, Classification(s) in which the worker was employed, Hourly wage rate(s) paid, Supplements paid or provided, and Daily and weekly number of hours worked in each classification.

The filing of payrolls to the Department of Jurisdiction is a condition of payment. Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury. The Department of Jurisdiction (Contracting Agency) shall collect, review for facial validity, and maintain such payrolls.

In addition, the Commissioner of Labor may require contractors to furnish, with ten (10) days of a request, payroll records sworn to as their validity and accuracy for public work and private work. Payroll records include, but are not limited to time cards, work description sheets, proof that supplements were provided, cancelled payroll checks and payrolls. Failure to provide the requested information within the allotted ten (10) days will result in the withholding of up to 25% of the contract, not to exceed \$100,000.00. If the contractor or subcontractor does not maintain a place of business in New York State and the amount of the contract exceeds \$25,000.00, payroll records and certifications must be kept on the project worksite.

The prime contractor is responsible for any underpayments of prevailing wages or supplements by any subcontractor.

All contractors or their subcontractors shall provide to their subcontractors a copy of the Prevailing Rate Schedule specified in the public work contract as well as any subsequently issued schedules. A failure to provide these schedules by a contractor or subcontractor is a violation of Article 8, Section 220-a of the Labor Law.

All subcontractors engaged by a public work project contractor or its subcontractor, upon receipt of the original schedule and any subsequently issued schedules, shall provide to such contractor a verified statement attesting that the subcontractor has received the Prevailing Rate Schedule and will pay or provide the applicable rates of wages and supplements specified therein. (See NYS Labor Laws, Article 8 . Section 220-a).

Determination of Prevailing Wage and Supplement Rate Updates Applicable to All Counties

The wages and supplements contained in the annual determination become effective July 1st whether or not the new determination has been received by a given contractor. Care should be taken to review the rates for obvious errors. Any corrections should be brought to the Department's attention immediately. It is the responsibility of the public work contractor to use the proper rates. If there is a question on the proper classification to be used, please call the district office located nearest the project. Any errors in the annual determination will be corrected and posted to the NYSDOL website on the first business day of each month. Contractors are responsible for paying these updated rates as well, retroactive to July 1st.

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. To the extent possible, the Department posts rates in its possession that cover periods of time beyond the July 1st to June 30th time frame covered by a particular annual determination. Rates that extend beyond that instant time period are informational ONLY and may be updated in future annual determinations that actually cover the then appropriate July 1st to June 30th time period.

Withholding of Payments

When a complaint is filed with the Commissioner of Labor alleging the failure of a contractor or subcontractor to pay or provide the prevailing wages or supplements, or when the Commissioner of Labor believes that unpaid wages or supplements may be due, payments on the public work contract shall be withheld from the prime contractor in a sufficient amount to satisfy the alleged unpaid wages and supplements, including interest and civil penalty, pending a final determination.

When the Bureau of Public Work finds that a contractor or subcontractor on a public work project failed to pay or provide the requisite prevailing wages or supplements, the Bureau is authorized by Sections 220-b and 235.2 of the Labor Law to so notify the financial officer of the Department of Jurisdiction (Contracting Agency) that awarded the public work contract. Such officer MUST then withhold or cause to be withheld from any payment due the prime contractor on account of such contract the amount indicated by the Bureau as sufficient to satisfy the unpaid wages and supplements, including interest and any civil penalty that may be assessed by the Commissioner of Labor. The withholding continues until there is a final determination of the underpayment by the Commissioner of Labor or by the court in the event a legal proceeding is instituted for review of the determination of the Commissioner of Labor.

The Department of Jurisdiction (Contracting Agency) shall comply with this order of the Commissioner of Labor or of the court with respect to the release of the funds so withheld.

Summary of Notice Posting Requirements

The current Prevailing Rate Schedule must be posted in a prominent and accessible place on the site of the public work project. The prevailing wage schedule must be encased in, or constructed of, materials capable of withstanding adverse weather conditions and be titled "PREVAILING RATE OF WAGES" in letters no smaller than two (2) inches by two (2) inches.

The "[Public Work Project](#)" notice must be posted at the beginning of the performance of every public work contract, on each job site.

Every employer providing workers. compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers. Compensation Board in a conspicuous place on the jobsite.

Every employer subject to the NYS Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers, notices furnished by the State Division of Human Rights.

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the NYS Department of Labor.

Apprentices

Employees cannot be paid apprentice rates unless they are individually registered in a program registered with the NYS Commissioner of Labor. The allowable ratio of apprentices to journeyworkers in any craft classification can be no greater than the statewide building trade ratios promulgated by the Department of Labor and included with the Prevailing Rate Schedule. An employee listed on a payroll as an apprentice who is not registered as above or is performing work outside the classification of work for which the apprentice is indentured, must be paid the prevailing journeyworker's wage rate for the classification of work the employee is actually performing.

NYSDOL Labor Law, Article 8, Section 220-3, require that only apprentices individually registered with the NYS Department of Labor may be paid apprenticeship rates on a public work project. No other Federal or State Agency of office registers apprentices in New York State.

Persons wishing to verify the apprentice registration of any person must do so in writing by mail, to the NYSDOL Office of Employability Development / Apprenticeship Training, State Office Bldg. Campus, Bldg. 12, Albany, NY 12226 or by Fax to NYSDOL Apprenticeship Training (518) 457-7154. All requests for verification must include the name and social security number of the person for whom the information is requested.

The only conclusive proof of individual apprentice registration is written verification from the NYSDOL Apprenticeship Training Albany Central office. Neither Federal nor State Apprenticeship Training offices outside of Albany can provide conclusive registration information.

It should be noted that the existence of a registered apprenticeship program is not conclusive proof that any person is registered in that program. Furthermore, the existence or possession of wallet cards, identification cards, or copies of state forms is not conclusive proof of the registration of any person as an apprentice.

Interest and Penalties

In the event that an underpayment of wages and/or supplements is found:

- Interest shall be assessed at the rate then in effect as prescribed by the Superintendent of Banks pursuant to section 14-a of the Banking Law, per annum from the date of underpayment to the date restitution is made.
- A Civil Penalty may also be assessed, not to exceed 25% of the total of wages, supplements, and interest due.

Debarment

Any contractor or subcontractor and/or its successor shall be ineligible to submit a bid on or be awarded any public work contract or subcontract with any state, municipal corporation or public body for a period of five (5) years when:

- Two (2) willful determinations have been rendered against that contractor or subcontractor and/or its successor within any consecutive six (6) year period.
- There is any willful determination that involves the falsification of payroll records or the kickback of wages or supplements.

Criminal Sanctions

Willful violations of the Prevailing Wage Law (Article 8 of the Labor Law) may be a felony punishable by fine or imprisonment of up to 15 years, or both.

Discrimination

No employee or applicant for employment may be discriminated against on account of age, race, creed, color, national origin, sex, disability or marital status.

No contractor, subcontractor nor any person acting on its behalf, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates (NYS Labor Law, Article 8, Section 220-e(a)).

No contractor, subcontractor, nor any person acting on its behalf, shall in any manner, discriminate against or intimidate any employee on account of race, creed, color, disability, sex, or national origin (NYS Labor Law, Article 8, Section 220-e(b)).

The Human Rights Law also prohibits discrimination in employment because of age, marital status, or religion.

There may be deducted from the amount payable to the contractor under the contract a penalty of \$50.00 for each calendar day during which such person was discriminated against or intimidated in violation of the provision of the contract (NYS Labor Law, Article 8, Section 220-e(c)).

The contract may be cancelled or terminated by the State or municipality. All monies due or to become due thereunder may be forfeited for a second or any subsequent violation of the terms or conditions of the anti-discrimination sections of the contract (NYS Labor Law, Article 8, Section 220-e(d)).

Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers notices furnished by the State Division of Human Rights.

Workers' Compensation

In accordance with Section 142 of the State Finance Law, the contractor shall maintain coverage during the life of the contract for the benefit of such employees as required by the provisions of the New York State Workers' Compensation Law.

A contractor who is awarded a public work contract must provide proof of workers' compensation coverage prior to being allowed to begin work.

The insurance policy must be issued by a company authorized to provide workers' compensation coverage in New York State. Proof of coverage must be on form C-105.2 (Certificate of Workers' Compensation Insurance) and must name this agency as a certificate holder.

If New York State coverage is added to an existing out-of-state policy, it can only be added to a policy from a company authorized to write workers' compensation coverage in this state. The coverage must be listed under item 3A of the information page.

The contractor must maintain proof that subcontractors doing work covered under this contract secured and maintained a workers' compensation policy for all employees working in New York State.

Every employer providing worker's compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

Unemployment Insurance

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the New York State Department of Labor.



Kathy Hochul, Governor

Roberta Reardon, Commissioner

Dormitory Authority
Dominick Donadio
515 Broadway
Albany NY 12207

Schedule Year 2024 through 2025
Date Requested 09/25/2024
PRC# 2024012224

Location Broome DDSO
Project ID# 354360
Project Type Parking Lot Expansion Project

Notice of Contract Award

New York State Labor Law, Article 8, Section 220.3a requires that certain information regarding the awarding of public work contracts, be furnished to the Commissioner of Labor. One "Notice of Contract Award" (PW 16, which may be photocopied), **MUST** be completed for **EACH** prime contractor on the above referenced project.

Upon notifying the successful bidder(s) of this contract, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

Contractor Information

All information must be supplied

Federal Employer Identification Number: _____		
Name: _____		
Address: _____ _____		
City: _____	State: _____	Zip: _____
Amount of Contract: \$ _____	Contract Type:	
Approximate Starting Date: ____/____/____	<input type="checkbox"/> (01) General Construction	
Approximate Completion Date: ____/____/____	<input type="checkbox"/> (02) Heating/Ventilation	
	<input type="checkbox"/> (03) Electrical	
	<input type="checkbox"/> (04) Plumbing	
	<input type="checkbox"/> (05) Other : _____	

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12226

Social Security Numbers on Certified Payrolls:

The Department of Labor is cognizant of the concerns of the potential for misuse or inadvertent disclosure of social security numbers. Identity theft is a growing problem and we are sympathetic to contractors' concern regarding inclusion of this information on payrolls if another identifier will suffice.

For these reasons, the substitution of the use of the last four digits of the social security number on certified payrolls submitted to contracting agencies on public work projects is now acceptable to the Department of Labor. This change does not affect the Department's ability to request and receive the entire social security number from employers during its public work/ prevailing wage investigations.

Construction Industry Fair Play Act: Required Posting for Labor Law Article 25-B § 861-d

Construction industry employers must post the "Construction Industry Fair Play Act" notice in a prominent and accessible place on the job site. Failure to post the notice can result in penalties of up to \$1,500 for a first offense and up to \$5,000 for a second offense. The posting is included as part of this wage schedule. Additional copies may be obtained from the NYS DOL website, <https://dol.ny.gov/public-work-and-prevailing-wage>

If you have any questions concerning the Fair Play Act, please call the State Labor Department toll-free at 1-866-435-1499 or email us at: dol.misclassified@labor.ny.gov .

Worker Notification: (Labor Law §220, paragraph a of subdivision 3-a)

Effective June 23, 2020

This provision is an addition to the existing wage rate law, Labor Law §220, paragraph a of subdivision 3-a. It requires contractors and subcontractors to provide written notice to all laborers, workers or mechanics of the *prevailing wage and supplement rate* for their particular job classification *on each pay stub**. It also requires contractors and subcontractors to *post a notice* at the beginning of the performance of every public work contract *on each job site* that includes the telephone number and address for the Department of Labor and a statement informing laborers, workers or mechanics of their right to contact the Department of Labor if he/she is not receiving the proper prevailing rate of wages and/or supplements for his/her job classification. The required notification will be provided with each wage schedule, may be downloaded from our website www.labor.ny.gov or be made available upon request by contacting the Bureau of Public Work at 518-457-5589. *In the event the required information will not fit on the pay stub, an accompanying sheet or attachment of the information will suffice.

(12.20)

**To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND**

Budget Policy & Reporting Manual

B-610

Public Work Enforcement Fund

effective date December 7, 2005

1. Purpose and Scope:

This Item describes the Public Work Enforcement Fund (the Fund, PWEF) and its relevance to State agencies and public benefit corporations engaged in construction or reconstruction contracts, maintenance and repair, and announces the recently-enacted increase to the percentage of the dollar value of such contracts that must be deposited into the Fund. This item also describes the roles of the following entities with respect to the Fund:

- New York State Department of Labor (DOL),
- The Office of the State of Comptroller (OSC), and
- State agencies and public benefit corporations.

2. Background and Statutory References:

DOL uses the Fund to enforce the State's Labor Law as it relates to contracts for construction or reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law. State agencies and public benefit corporations participating in such contracts are required to make payments to the Fund.

Chapter 511 of the Laws of 1995 (as amended by Chapter 513 of the Laws of 1997, Chapter 655 of the Laws of 1999, Chapter 376 of the Laws of 2003 and Chapter 407 of the Laws of 2005) established the Fund.

3. Procedures and Agency Responsibilities:

The Fund is supported by transfers and deposits based on the value of contracts for construction and reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law, into which all State agencies and public benefit corporations enter.

Chapter 407 of the Laws of 2005 increased the amount required to be provided to this fund to .10 of one-percent of the total cost of each such contract, to be calculated at the time agencies or public benefit corporations enter into a new contract or if a contract is amended. The provisions of this bill became effective August 2, 2005.

**To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND**

OSC will report to DOL on all construction-related ("D") contracts approved during the month, including contract amendments, and then DOL will bill agencies the appropriate assessment monthly. An agency may then make a determination if any of the billed contracts are exempt and so note on the bill submitted back to DOL. For any instance where an agency is unsure if a contract is or is not exempt, they can call the Bureau of Public Work at the number noted below for a determination. Payment by check or journal voucher is due to DOL within thirty days from the date of the billing. DOL will verify the amounts and forward them to OSC for processing.

For those contracts which are not approved or administered by the Comptroller, monthly reports and payments for deposit into the Public Work Enforcement Fund must be provided to the Administrative Finance Bureau at the DOL within 30 days of the end of each month or on a payment schedule mutually agreed upon with DOL.

Reports should contain the following information:

- Name and billing address of State agency or public benefit corporation;
- State agency or public benefit corporation contact and phone number;
- Name and address of contractor receiving the award;
- Contract number and effective dates;
- Contract amount and PWEF assessment charge (if contract amount has been amended, reflect increase or decrease to original contract and the adjustment in the PWEF charge); and
- Brief description of the work to be performed under each contract.

Checks and Journal Vouchers, payable to the "New York State Department of Labor" should be sent to:

Department of Labor
Administrative Finance Bureau-PWEF Unit
Building 12, Room 464
State Office Campus
Albany, NY 12226

Any questions regarding billing should be directed to NYSDOL's Administrative Finance Bureau-PWEF Unit at (518) 457-3624 and any questions regarding Public Work Contracts should be directed to the Bureau of Public Work at (518) 457-5589.

Required Notice under Article 25-B of the Labor Law

**Attention All Employees, Contractors and Subcontractors:
You are Covered by the Construction Industry Fair Play Act**

The law says that you are an employee unless:

- You are free from direction and control in performing your job, **and**
- You perform work that is not part of the usual work done by the business that hired you, **and**
- You have an independently established business.

Your employer cannot consider you to be an independent contractor unless all three of these facts apply to your work.

It is against the law for an employer to misclassify employees as independent contractors or pay employees off the books.

Employee Rights: If you are an employee, you are entitled to state and federal worker protections. These include:

- Unemployment Insurance benefits, if you are unemployed through no fault of your own, able to work, and otherwise qualified,
- Workers' compensation benefits for on-the-job injuries,
- Payment for wages earned, minimum wage, and overtime (under certain conditions),
- Prevailing wages on public work projects,
- The provisions of the National Labor Relations Act, and
- A safe work environment.

It is a violation of this law for employers to retaliate against anyone who asserts their rights under the law. Retaliation subjects an employer to civil penalties, a private lawsuit or both.

Independent Contractors: If you are an independent contractor, **you must pay all taxes and Unemployment Insurance contributions required by New York State and Federal Law.**

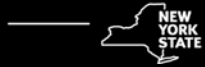
Penalties for paying workers off the books or improperly treating employees as independent contractors:

- **Civil Penalty** First offense: Up to \$2,500 per employee
 Subsequent offense(s): Up to \$5,000 per employee
- **Criminal Penalty** First offense: Misdemeanor - up to 30 days in jail, up to a \$25,000 fine and debarment from performing public work for up to one year.
 Subsequent offense(s): Misdemeanor - up to 60 days in jail or up to a \$50,000 fine and debarment from performing public work for up to 5 years.

If you have questions about your employment status or believe that your employer may have violated your rights and you want to file a complaint, call the Department of Labor at (866) 435-1499 or send an email to dol.misclassified@labor.ny.gov. All complaints of fraud and violations are taken seriously. You can remain anonymous.

Employer Name:

IA 999 (09/16)



Attention Employees

THIS IS A: **PUBLIC WORK PROJECT**

If you are employed on this project as a **worker, laborer, or mechanic** you are entitled to receive the **prevailing wage and supplements rate** for the classification at which you are working.

Your pay stub and wage notice received upon hire must clearly state your wage rate and supplement rate.

Chapter 629 of the Labor Laws of 2007:

These wages are set by law and must be posted at the work site. They can also be found at:
<https://dol.ny.gov/bureau-public-work>



If you feel that you have not received proper wages or benefits, please call our nearest office.*

Albany	(518) 457-2744	Patchogue	(631) 687-4882
Binghamton	(607) 721-8005	Rochester	(585) 258-4505
Buffalo	(716) 847-7159	Syracuse	(315) 428-4056
Garden City	(516) 228-3915	Utica	(315) 793-2314
New York City	(212) 932-2419	White Plains	(914) 997-9507
Newburgh	(845) 568-5287		

* For New York City government agency construction projects, please contact the Office of the NYC Comptroller at (212) 669-4443, or www.comptroller.nyc.gov – click on Bureau of Labor Law.

Contractor Name: _____

Project Location: _____

Requirements for OSHA 10 Compliance

Article 8 §220-h requires that when the advertised specifications, for every contract for public work, is \$250,000.00 or more the contract must contain a provision requiring that every worker employed in the performance of a public work contract shall be certified as having completed an OSHA 10 safety training course. The clear intent of this provision is to require that all employees of public work contractors, required to be paid prevailing rates, receive such training "prior to the performing any work on the project."

The Bureau will enforce the statute as follows:

All contractors and sub contractors must attach a copy of proof of completion of the OSHA 10 course to the first certified payroll submitted to the contracting agency and on each succeeding payroll where any new or additional employee is first listed.

Proof of completion may include but is not limited to:

- Copies of bona fide course completion card (*Note: Completion cards do not have an expiration date.*)
- Training roster, attendance record or other documentation from the certified trainer pending the issuance of the card.
- Other valid proof

**A certification by the employer attesting that all employees have completed such a course is not sufficient proof that the course has been completed.

Any questions regarding this statute may be directed to the New York State Department of Labor, Bureau of Public Work at 518-457-5589.

WICKS

Public work projects are subject to the Wicks Law requiring separate specifications and bidding for the plumbing, heating and electrical work, when the total project's threshold is \$3 million in Bronx, Kings, New York, Queens and, Richmond counties; \$1.5 million in Nassau, Suffolk and Westchester counties; and \$500,000 in all other counties.

For projects below the monetary threshold, bidders must submit a sealed list naming each subcontractor for the plumbing, HVAC and electrical and the amount to be paid to each. The list may not be changed unless the public owner finds a legitimate construction need, including a change in specifications or costs or the use of a Project Labor Agreement (PLA), and must be open to public inspection.

Allows the state and local agencies and authorities to waive the Wicks Law and use a PLA if it will provide the best work at the lowest possible price. If a PLA is used, all contractors shall participate in apprentice training programs in the trades of work it employs that have been approved by the Department of Labor (DOL) for not less than three years. They shall also have at least one graduate in the last three years and use affirmative efforts to retain minority apprentices. PLA's would be exempt from Wicks, but deemed to be public work subject to prevailing wage enforcement.

The Commissioner of Labor shall have the power to enforce separate specification requirements on projects, and may issue stop-bid orders against public owners for non-compliance.

Other new monetary thresholds, and similar sealed bidding for non-Wicks projects, would apply to certain public authorities including municipal housing authorities, NYC Construction Fund, Yonkers Educational Construction Fund, NYC Municipal Water Finance Authority, Buffalo Municipal Water Finance Authority, Westchester County Health Care Association, Nassau County Health Care Corp., Clifton-Fine Health Care Corp., Erie County Medical Center Corp., NYC Solid Waste Management Facilities, and the Dormitory Authority.

Contractors must pay subcontractors within a 7 days period.

(07.19)

Introduction to the Prevailing Rate Schedule

Information About Prevailing Rate Schedule

This information is provided to assist you in the interpretation of particular requirements for each classification of worker contained in the attached Schedule of Prevailing Rates.

Classification

It is the duty of the Commissioner of Labor to make the proper classification of workers taking into account whether the work is heavy and highway, building, sewer and water, tunnel work, or residential, and to make a determination of wages and supplements to be paid or provided. It is the responsibility of the public work contractor to use the proper rate. If there is a question on the proper classification to be used, please call the district office located nearest the project. District office locations and phone numbers are listed below.

Prevailing Wage Schedules are issued separately for "General Construction Projects" and "Residential Construction Projects" on a county-by-county basis.

General Construction Rates apply to projects such as: Buildings, Heavy & Highway, and Tunnel and Water & Sewer rates.

Residential Construction Rates generally apply to construction, reconstruction, repair, alteration, or demolition of one family, two family, row housing, or rental type units intended for residential use.

Some rates listed in the Residential Construction Rate Schedule have a very limited applicability listed along with the rate. Rates for occupations or locations not shown on the residential schedule must be obtained from the General Construction Rate Schedule. Please contact the local Bureau of Public Work office before using Residential Rate Schedules, to ensure that the project meets the required criteria.

Payrolls and Payroll Records

Contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemporaneous, true, and accurate payroll records.

Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury.

Paid Holidays

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

Overtime

At a minimum, all work performed on a public work project in excess of eight hours in any one day or more than five days in any workweek is overtime. However, the specific overtime requirements for each trade or occupation on a public work project may differ. Specific overtime requirements for each trade or occupation are contained in the prevailing rate schedules.

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays.

The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Supplemental Benefits

Particular attention should be given to the supplemental benefit requirements. Although in most cases the payment or provision of supplements is straight time for all hours worked, some classifications require the payment or provision of supplements, or a portion of the supplements, to be paid or provided at a premium rate for premium hours worked. Supplements may also be required to be paid or provided on paid holidays, regardless of whether the day is worked. The Overtime Codes and Notes listed on the particular wage classification will indicate these conditions as required.

Effective Dates

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. The rate listed is valid until the next effective rate change or until the new annual determination which takes effect on July 1 of each year. All contractors and subcontractors are required to pay the current prevailing rates of wages and supplements. If you have any questions please contact the Bureau of Public Work or visit the New York State Department of Labor website (www.labor.ny.gov) for current wage rate information.

Apprentice Training Ratios

The following are the allowable ratios of registered Apprentices to Journey-workers.

For example, the ratio 1:1,1:3 indicates the allowable initial ratio is one Apprentice to one Journeyworker. The Journeyworker must be in place on the project before an Apprentice is allowed. Then three additional Journeyworkers are needed before a second Apprentice is allowed. The last ratio repeats indefinitely. Therefore, three more Journeyworkers must be present before a third Apprentice can be hired, and so on.

Please call Apprentice Training Central Office at (518) 457-6820 if you have any questions.

Title (Trade)	Ratio
Boilermaker (Construction)	1:1,1:4
Boilermaker (Shop)	1:1,1:3
Carpenter (Bldg.,H&H, Pile Driver/Dockbuilder)	1:1,1:4
Carpenter (Residential)	1:1,1:3
Electrical (Outside) Lineman	1:1,1:2
Electrician (Inside)	1:1,1:3
Elevator/Escalator Construction & Modernizer	1:1,1:2
Glazier	1:1,1:3
Insulation & Asbestos Worker	1:1,1:3
Iron Worker	1:1,1:4
Laborer	1:1,1:3
Mason	1:1,1:4
Millwright	1:1,1:4
Op Engineer	1:1,1:5
Painter	1:1,1:3
Plumber & Steamfitter	1:1,1:3
Roofer	1:1,1:2
Sheet Metal Worker	1:1,1:3
Sprinkler Fitter	1:1,1:2

If you have any questions concerning the attached schedule or would like additional information, please contact the nearest BUREAU of PUBLIC WORK District Office or write to:

New York State Department of Labor
 Bureau of Public Work
 State Office Campus, Bldg. 12
 Albany, NY 12226

District Office Locations:	Telephone #	FAX #
Bureau of Public Work - Albany	518-457-2744	518-485-0240
Bureau of Public Work - Binghamton	607-721-8005	607-721-8004
Bureau of Public Work - Buffalo	716-847-7159	716-847-7650
Bureau of Public Work - Garden City	516-228-3915	516-794-3518
Bureau of Public Work - Newburgh	845-568-5287	845-568-5332
Bureau of Public Work - New York City	212-932-2419	212-775-3579
Bureau of Public Work - Patchogue	631-687-4882	631-687-4902
Bureau of Public Work - Rochester	585-258-4505	585-258-4708
Bureau of Public Work - Syracuse	315-428-4056	315-428-4671
Bureau of Public Work - Utica	315-793-2314	315-793-2514
Bureau of Public Work - White Plains	914-997-9507	914-997-9523
Bureau of Public Work - Central Office	518-457-5589	518-485-1870

Broome County General Construction

Boilermaker **09/01/2024**

JOB DESCRIPTION Boilermaker **DISTRICT 1**

ENTIRE COUNTIES

Albany, Broome, Chenango, Columbia, Delaware, Essex, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Tioga, Warren, Washington

WAGES

Per hour
 07/01/2024

Boilermaker \$ 40.84

SUPPLEMENTAL BENEFITS

Per hour

Journeyworker \$26.51
 + 1.49*

(*) This portion of the benefit is NOT subject to the SAME PREMIUM as shown for overtime.

OVERTIME PAY

See (B, E, Q, V) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6, 15, 25) on HOLIDAY PAGE

Note: When a holiday falls on Sunday, the day observed by the State or Nation shall be observed, and when Christmas Day and New Year's fall on Saturday, Friday will be observed as the holiday.

REGISTERED APPRENTICES

Wages per hour
 (1/2) year terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th
65%	65%	70%	75%	80%	85%	90%	95%

Supplemental Benefits per hour

1st	2nd	3rd	4th	5th	6th	7th	8th
19.71	19.71	20.69	21.64	22.62	23.60	24.57	25.53
+1.49**	+1.49**	+1.49**	+1.49**	+1.49**	+1.49**	+1.49**	+1.49**

(**) This portion of the benefit is NOT subject to the SAME PREMIUM as shown for overtime.

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Carpenter - Building **09/01/2024**

JOB DESCRIPTION Carpenter - Building **DISTRICT 2**

ENTIRE COUNTIES

Broome, Tioga

WAGES

Per hour:	07/01/2024	07/01/2025
		Additional
Carpenter	\$ 30.90	\$ 1.30*
Floor Coverer	30.90	1.30*
Carpet Layer	30.90	1.30*
Dry-Wall	30.90	1.30*
Diver-Wet Day	36.25	0.00
Diver -Dry Day	31.90	1.30*
Diver Tender	31.90	1.30*

*To be allocated at a later date

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (per hour worked):

- Pile Drivers/Dock Builders shall receive \$0.25 per hour over the journeyworker's rate of pay when performing piledriving/dock building work.

- Certified welders shall receive \$1.00 per hour over the journeyworker's rate of pay when the employee is required to be certified and performs DOT or ABS specified welding work
- When an employee performs work within a contaminated area on a State and/or Federally designated hazardous waste site, and where relevant State and/or Federal regulations require employees to be furnished and use or wear required forms of personal protection, then the employee shall receive his regular hourly rate plus \$1.50 per hour.
- Depth pay for Divers based upon deepest depth on the day of the dive (per diem payment):
 - 0' to 80' no additional fee
 - 81'to 100' additional \$.50 per foot
 - 101'to 150' additional \$0.75 per foot
 - 151'and deeper additional \$1.25 per foot
- Penetration pay for Divers based upon deepest penetration on the day of the dive (per diem payment):
 - 0' to 50' no additional fee
 - 51' to 100' additional \$.75 per foot
 - 101' and deeper additional \$1.00 per foot
- Diver rates applies to all hours worked on dive day.

SHIFT WORK

On Agency/Owner mandated shift work, the following rates will be applicable:

- 1st Shift - Regular Rate
- 2nd Shift - Premium of 7% of base wage per hour
- 3rd Shift - Premium of 14% of base wage per hour

Shift work shall be defined as implementing at least two (2) shifts in a twenty-four (24) consecutive hour period. Shift work must be for a minimum of three (3) consecutive days.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 21.56

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

Note: Any holiday which occurs on Sunday shall be observed the following Monday. If Christmas falls on a Saturday, it shall be observed on the prior Friday.

REGISTERED APPRENTICES

Wages per hour (1300 hour terms at the following percentage of Journeyworker's base wage):

1st	2nd	3rd	4th
65%	70%	75%	80%

Supplemental Benefits per hour:

\$ 12.55	\$ 12.55	\$ 15.15	\$ 15.15
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NOTE ADDITIONAL AMOUNTS PAID TO APPRENTICES FOR THE FOLLOWING WORK LISTED BELOW (per hour worked):

- Pile Driving/Dock Builder apprentices shall receive an additional \$0.25 per hour worked when performing piledriving/dock building work.
- Certified Welders shall receive \$1.00 per hour over the apprentices rate of pay when the apprentice is required to be certified and performs DOT or ABS specified welding work.
- When an apprentice performs work within a contaminated area on a State and/or Federally designated hazardous waste site, and where relevant State and/or Federal regulations require the apprentice to be furnished and use or wear required forms of personal protection, then the apprentice shall receive his regular hourly rate plus \$1.50 per hour.

2-277B-Bro

Carpenter - Building / Heavy&Highway

09/01/2024

JOB DESCRIPTION Carpenter - Building / Heavy&Highway

DISTRICT 2

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

PARTIAL COUNTIES

Orange: The area lying on Northern side of Orange County demarcated by a line drawn from the Bear Mountain Bridge continuing west to the Bear Mountain Circle, continue North on 9W to the town of Cornwall where County Road 107 (also known as Quaker Rd) crosses under 9W, then east on County Road 107 to Route 32, then north on Route 32 to Orrs Mills Rd, then west on Orrs Mills Rd to Route 94, continue west and south on Route 94 to the Town of Chester, to the intersection of Kings Highway, continue south on Kings Highway to Bellvale Rd, west on Bellvale Rd to Bellvale Lakes Rd, then south on Bellvale Lakes Rd to Kain Rd, southeast on Kain Rd to Route 17A, then north and southeast along Route 17A to Route 210, then follow Route 210 to NJ Border.

WAGES

Wages per hour: 07/01/2024

Carpenter - ONLY for
 Artificial Turf/Synthetic
 Sport Surface \$ 36.48

Note - Does not include the operation of equipment. Please see Operating Engineers rates.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 26.55

OVERTIME PAY

See (B, E, Q, X) on OVERTIME PAGE

HOLIDAY

Paid: See (5) on HOLIDAY PAGE

Overtime: See (5, 6, 16) on HOLIDAY PAGE

Notes:

When a holiday falls upon a Saturday, it shall be observed on the preceding Friday. When a holiday falls upon a Sunday, it shall be observed on the following Monday.

An employee taking an unexcused day off the regularly scheduled day before or after a paid Holiday shall not receive Holiday pay.

REGISTERED APPRENTICES

Wages per hour (1300 hour terms at the following percentage of Journeyworker's wage):

1st	2nd	3rd	4th
65%	70%	75%	80%

Supplemental Benefits per hour:

\$18.58	\$19.14	\$21.24	\$21.79
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2-42AtSS

Carpenter - Heavy&Highway

09/01/2024

JOB DESCRIPTION Carpenter - Heavy&Highway

DISTRICT 2

ENTIRE COUNTIES

Broome, Cayuga, Chemung, Cortland, Delaware, Jefferson, Lewis, Onondaga, Oswego, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Yates

WAGES

Per hour 07/01/2024

Carpenter	\$ 38.28
Piledriver	38.28
Diver-Wet Day	63.28
Diver-Dry Day	39.28
Diver-Tender	39.28

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (per hour worked):

- State or Federal designated hazardous site, requiring protective gear shall be an additional \$2.50 per hour.
- Certified welders when required to perform welding work will receive an additional \$2.50 per hour.

ADDITIONAL NOTES PERTAINING TO DIVERS/TENDERS:

- Divers and Tenders shall receive one and one half (1 1/2) times their regular diver and tender rate of pay for Effluent and Slurry diving.
- Divers and tenders being paid at the specified rate for Effluent and Slurry diving shall have all overtime rates based on the specified rate plus the appropriate overtime rates (one and one half or two times the specified rate for Slurry and Effluent divers and tenders).
- The pilot of an ADS or submersible will receive one and one-half (1 1/2) times the Diver-Wet Day Rate for time submerged.
- All crew members aboard a submersible shall receive the Diver-Wet Day rate.
- Depth pay for Divers based upon deepest depth on the day of the dive (per diem payment):
 - 0' to 50' no additional fee
 - 51'to 100' additional \$.50 per foot
 - 101'to 150' additional \$0.75 per foot
 - 151'and deeper additional \$1.25 per foot
- Penetration pay for Divers based upon deepest penetration on the day of the dive (per diem payment):
 - 0' to 50' no additional fee
 - 51' to 100' additional \$.75 per foot
 - 101' and deeper additional \$1.00 per foot
- Diver rates applies to all hours worked on dive day.

SHIFT WORK

When project owner mandates a single irregular work shift, the Journeyworkers and Apprentices will receive an additional \$3.00 per hour. A single irregular work shift can start any time from 5:00 p.m. to 1:00 a.m.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 26.55

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

- In the event a Holiday falls on a Saturday, the Friday before will be observed as a Holiday. If a Holiday falls on a Sunday, then Monday will be observed as a Holiday.

- The employee must work their scheduled workday before and their scheduled workday after the holiday to receive holiday pay.

REGISTERED APPRENTICES

CAPRENTER APPRENTICES

Wages per hour (1040 hour terms at the following percentage of journeyworker's base wage):

1st	2nd	3rd	4th	5th
65%	70%	75%	80%	85%

Supplemental Benefits per hour:

\$ 18.58	\$ 19.14	\$ 21.19	\$ 21.74	\$ 22.29
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PILEDRIVER/DOCKBUILDER APPRENTICES

Wages per hour (1300 hour terms at the following percentage of journeyworker's base wage):

1st	2nd	3rd	4th
65%	70%	75%	80%

Supplemental Benefits per hour:

\$ 18.58	\$ 19.14	\$ 21.19	\$ 21.74
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NOTE ADDITIONAL AMOUNTS PAID PER HOUR WORKED TO APPRENTICES FOR SPECIFIC TYPES OF WORK PERFORMED:

- State or Federal designated hazardous site, requiring protective gear shall be an additional \$2.50 per hour.

- Certified welders when required to perform welding work will receive an additional \$2.50 per hour.

2-277HH-Bro

Electrician

09/01/2024

JOB DESCRIPTION Electrician

DISTRICT 2

ENTIRE COUNTIES

Broome

PARTIAL COUNTIES

Chenango: Entire County except the Townships of Columbus, New Berlin and Sherburne.

Delaware: Only the Townships of Davenport, Delhi, Deposit, Franklin, Hamden, Masonville, Meredith, Sidney, Tompkins and Walton Townships, and that portion of Colchester and Hancock Townships north of the east branch of the Delaware River.

Otsego: Only the Townships of Butternuts, Hartwick, Laurens, Maryland, Milford, Morris, Oneonta, Otsego, Unadilla and Westford.

Tioga: Only the Townships of Berkshire, Newark Valley, Owego, Richford and Tioga.

WAGES

Per hour:	07/01/2024	06/01/2025 Additional
Electrician (base wage)	\$ 40.68	\$ 3.00*
Cable Splicer	47.93	3.50*

*To be allocated at a later date

ADDITIONAL AMOUNTS FOR SPECIFIC TYPES OF JOBSITE CONDITIONS (amount subject to any overtime premiums):

Additional \$ 0.50 per hour when required to work underground, such as in tunnels for roads, railroads, or water.

Additional \$ 0.50 per hour when required to work at a height of 40 feet above the ground or roof level.

SHIFT WORK

When shift work is mandated in the job specifications or by the contracting agency, the following journeyworker hourly rates apply. The starting hours of a shift may be adjusted up to two (2) hours in order to meet the needs of the contracting agency.

Between the hours of 8:00AM and 4:30PM	\$ 40.68
Between the hours of 4:30PM and 1:00AM	47.72
Between the hours of 12:30AM and 9:00AM	53.45

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 30.78 plus
 3% of wage

OVERTIME PAY

See (B, *E, Q) on OVERTIME PAGE

*Double time after 8 hours on Saturday.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6, *8, 16) on HOLIDAY PAGE

When a dated holiday falls on a Saturday it shall be celebrated on Friday. When a dated holiday falls on a Sunday, it shall be celebrated on Monday.

*Good Friday may be celebrated the following Monday by mutual agreement of Employer and Employees.

REGISTERED APPRENTICES

WAGES: Terms at the following percentages of Journeyworker's wage.

1st	2nd	3rd	4th	5th
0-2000 Hrs	2000-3500 Hrs	3500-5000 Hrs	5000-6500 Hrs	6500-8000 Hrs
45%	50%	58%	68%	78%

ADDITIONAL AMOUNTS FOR SPECIFIC TYPES OF JOBSITE CONDITIONS (amount subject to any overtime premiums):

Additional \$ 0.50 per hour when required to work underground, such as in tunnels for roads, railroads, or water.

Additional \$ 0.50 per hour when required to work at a height of 40 feet above the ground or roof level.

SUPPLEMENTAL BENEFITS per hour:

07/01/2024

1st term	\$ 9.75 plus 3% of the hourly wage
2nd term	\$ 26.12 plus 3% of the hourly wage
All other terms	\$ 26.83 plus 3% of the hourly wage

2-325

Elevator Constructor

09/01/2024

JOB DESCRIPTION Elevator Constructor

DISTRICT 6

ENTIRE COUNTIES

Broome, Cayuga, Chenango, Cortland, Franklin, Jefferson, Lewis, Onondaga, Oswego, St. Lawrence, Tioga, Tompkins

PARTIAL COUNTIES

Delaware: Only the towns of: Tompkins, Walton, Masonville, Sidney, Franklin and Deposit.

Madison: Only the towns of: Cazenovia, DeRuyter, Eaton, Fenner, Georgetown, Lebanon, Lenox, Nelson and Sullivan.

Oneida: Only the towns of: Camden, Florence and Vienna.

WAGES

Per hour:	07/01/2024	01/01/2025	01/01/2026
Elevator Constructor	\$ 56.01	\$ 58.455	\$ 61.003
Helper	39.21	40.92	42.70

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 37.885*	\$ 38.435*	\$ 38.985*
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*NOTE - add 6% of regular hourly rate for all hours worked. Add 8% of regular hourly rate if more than 5 years of service.

OVERTIME PAY

See (D, O) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 15, 16) on HOLIDAY PAGE

Overtime: See (5, 6, 15, 16) on HOLIDAY PAGE

NOTE: When a holiday falls on a Saturday, it shall be observed on Friday. When a holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES

WAGES per hour: 1 year terms at the following percentage of the Elevator Constructor wage.

0-6 months	6-12 months	2nd year	3rd year	4th year
50%	55%	65%	70%	80%

SUPPLEMENTAL BENEFITS per hour:

0-6 months: 6% of the hourly apprentice rate paid, no additional supplemental benefits.

All other terms: Same as Journeyworker

6-62.1

Glazier

09/01/2024

JOB DESCRIPTION Glazier

DISTRICT 5

ENTIRE COUNTIES

Broome, Chemung, Chenango, Delaware, Otsego, Schuyler, Steuben, Tioga, Tompkins

WAGES

Per hour: 07/01/2024

Glazier \$ 28.90

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 30.20

OVERTIME PAY

See (B, E*, E2, Q**) on OVERTIME PAGE.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

1000 hour terms

Appr. 1st term	\$18.00
Appr. 2nd term	19.00
Appr. 3rd term	20.00
Appr. 4th term	21.00
Appr. 5th term	22.00
Appr. 6th term	23.00
Appr. 7th term	24.00
Appr. 8th term	25.00

Supplemental Benefits per hour:

Appr. 1st term	\$ 13.22
Appr. 2nd term	13.22
Appr. 3rd term	19.22
Appr. 4th term	19.22
Appr. 5th term	20.22
Appr. 6th term	20.22
Appr. 7th term	21.22
Appr. 8th term	21.22

5-677z3

Insulator - Heat & Frost

09/01/2024

JOB DESCRIPTION Insulator - Heat & Frost

DISTRICT 7

ENTIRE COUNTIES

Broome, Cayuga, Chemung, Chenango, Cortland, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, Otsego, Schuyler, Seneca, St. Lawrence, Tioga, Tompkins

WAGES

Per hour: 07/01/2024

Asbestos Installer	\$ 41.50
Insulation Installer	41.50
(On mechanical systems only)	

SHIFT WORK

The following rates will apply on all contracting agency-mandated shifts worked:

1st Shift	\$ 41.50
2nd Shift	47.72
3rd Shift	49.80

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 25.09
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OVERTIME PAY

See (*B1, **K, P) on OVERTIME PAGE

*NOTE: First 10 hours on Saturday.

**NOTE: Holidays that fall on Sunday are subject to double time.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (2*,4,6,28) on HOLIDAY PAGE

*Triple time for Labor Day if worked.

REGISTERED APPRENTICES

WAGES per hour: One (1) year terms at the following percentage of Journeyworker's wage.

1st	2nd	3rd	4th
60%	70%	80%	90%
\$ 24.90	\$ 29.05	\$ 33.20	\$ 37.35

SUPPLEMENTAL BENEFITS per hour:

\$ 22.59	\$ 22.59	\$ 25.09	\$ 25.09
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7-30-Syracuse

Ironworker

09/01/2024

JOB DESCRIPTION Ironworker

DISTRICT 6

ENTIRE COUNTIES

Broome, Cayuga, Cortland, Onondaga, Oswego, Seneca, Tioga, Tompkins

PARTIAL COUNTIES

Chenango: Only the townships of Afton, Bainbridge, Coventry, German, Greene, Guilford, Lincklaen, McDonough, Norwich, Otselic, Oxford, Pharsalia, Pitcher, Preston and Smithville.

Jefferson: Only the townships of Adams, Alexandria, Brownville, Cape Vincent, Clayton, Ellisburg, Henderson, Hounsfield, LeRay, Lorraine, Lyme, Orleans, Pamela, Rodman, Rutland, Theresa, Watertown and Worth.

Madison: Only the townships of Cazenovia, DeRuyter, Fenner, Georgetown, Lenox, Lincoln, Nelson, Smithfield and Sullivan.

Schuyler: Only the townships of Cayuta, Catharine, Hector and Montour.

Wayne: Only the townships of Butler, Galen, Huron, Rose, Savannah and Wolcott.

WAGES

Structural, Reinforcing, Re-bar, Machinery Mover & Rigger, Ornamental & Curtain Wall, Window Wall, Pre-Glazed Metal Framed Windows Attached to Steel or Masonry Including Caulking, Fence Erector (Chain Link/Security), Sheeter/Bridge Rail, Pre-Cast Erector, Stone Derrickman, Pre-Engineered Building Erector, Welder

Per hour:	07/01/2024	07/01/2025	07/01/2026
		Additional	Additional
Ironworker	\$ 34.65	\$ 2.66*	\$ 2.76*

*To be allocated at a later date.

SHIFT WORK

Multiple shifts mandated by the project owner. All shifts will be eight (8) hours.

1st Shift	\$ 34.65	
2nd Shift	38.12	Starting times between 2PM and 7PM
3rd Shift	39.85	Starting times between 7PM and 12AM

WHEN A SINGLE IRREGULAR SHIFT IS WORKED, WITH START TIMES BASED ON SECOND AND THIRD SHIFTS, ADD 10% TO THE 1ST SHIFT WAGE RATE POSTED ABOVE.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 31.73
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OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: Any holiday which occurs on Saturday shall be observed on the preceding Friday. Any holiday which occurs on Sunday shall be observed the following Monday.

REGISTERED APPRENTICES

WAGES per hour: One year terms at the following rates.

1st	2nd	3rd	4th
\$ 21.50	\$ 23.50	\$ 25.50	\$ 27.50

SUPPLEMENTAL BENEFITS per hour:

1st year	\$ 12.53
2nd year	20.86
3rd year	22.05
4th year	23.24

6-60

Laborer - Building

09/01/2024

JOB DESCRIPTION Laborer - Building

DISTRICT 2

ENTIRE COUNTIES

Broome, Chemung, Steuben

PARTIAL COUNTIES

Chenango: Entire County except the Townships of Sherburne, Columbus and New Berlin.
 Delaware: Only the Townships of Sidney, Masonville, Walton, Tompkins, Deposit, Hancock, and Colchester.
 Schuyler: Entire County except the Township of Catherine and the Village of Odessa.
 Tioga: Entire County except Townships of Candor & Spencer

WAGES

Per hour:

GROUP #1: Basic Laborer - excavation, concrete vibrator, power-driven buggy, demolition (including acetylene torch work) that is customarily done by a laborer

GROUP #2: Air Tool Operators, Mason Tenders

GROUP #3: Blaster, Rock Drill (compressor driven)

GROUP #4: Asbestos, Hazardous, Toxic Waste, Lead and Mold Remediation

	07/01/2024	07/01/2025	07/01/2026
GROUP #1	\$ 26.50	Additional \$ 1.25*	Additional \$ 1.25*
GROUP #2	27.50	1.25*	1.25*
GROUP #3	28.50	1.25*	1.25*
GROUP #4	28.50	1.25*	1.25*

*To be allocated at a later date.

IMPORTANT NOTES:

- Laborer tasks on Renewable Energy and Green Energy construction work shall be paid at the appropriate Heavy & Highway rates.
- Wage and supplement rates for the operation of forklift and skid steer may be found under the classification "Operating Engineer".

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker: \$ 22.45

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE

When a Holiday falls on Sunday it shall be observed on the following Monday.

REGISTERED APPRENTICES

WAGES: 1000 hour terms at the following percent of Journeyworker's wage

1st	2nd	3rd	4th
70%	80%	85%	90%

SUPPLEMENTAL BENEFITS per hour:

1st Term	\$ 15.35
2nd Term	16.60
3rd Term	17.48
4th Term	18.35

2-785 (7)

Laborer - Heavy&Highway **09/01/2024**

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 2

ENTIRE COUNTIES

Broome, Chemung, Cortland, Schuyler, Steuben, Tioga, Tompkins

PARTIAL COUNTIES

Chenango: Entire County except the Townships of Sherburne, Columbus, and New Berlin.

Delaware: Only the Townships of Sidney, Masonville, Walton, Tompkins, Deposit, Hancock and Colchester.

WAGES

Per hour:

GROUP A: Drill Helper, Flagman, Outboard and Hand Boats.

GROUP B: Basic Rate, Bull Float (where used for strike off only), Chain Saw, Concrete Aggregate Bin, Concrete Bootmen, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer, Pavement Breaker, Handlers of Steel Mesh, Small Generators for Laborers Tools, Installation of Bridge Drainage Pipe, Pipe Layers, Vibrator Type Rollers, Tamper, Drill Doctor, Water Pump Operators (1-1/2" & Single Diaphragm), Nozzle (Asphalt, Guniting, Seeding, and Sand Blasting), Laborers on Chain Link Fence Erection, Rock Splitter and Power Unit, Pusher Type Concrete Saw and all other Gas, Electric, and Air Tool Operators, Wrecking Laborer.

GROUP C: Drilling equipment - only where a separate air compressor unit supplies power, Acetylene Torch Operators, Asphalt Raker, Powder Man, Tail or Screw Operator on Asphalt Paver.

GROUP D: Blasters, Form Setters (slab steel forms on highways, roads, streets & airport runways), Stone or Granite Curb Setters.

GROUP E: Hazardous Waste defined as when an employee performs hazardous waste removal, lead abatement and removal, asbestos abatement and removal work on State and/or Federally designated waste site and were relevant State and/or Federal regulations require employees to use or wear required forms of personal protection.

07/01/2024

GROUP A	\$ 35.56
GROUP B	35.76
GROUP C	35.96
GROUP D	36.16
GROUP E	38.76

IMPORTANT NOTES:

- Laborer tasks on Renewable Energy and Green Energy construction work shall be paid at the appropriate Heavy & Highway rates.
- Wage and supplement rates for the operation of forklift and skid steer may be found under the classification "Operating Engineer".
- When an employee is required by the employer and/or by the material data safety sheets of a product, during its application, to wear a half or full-face replaceable cartridge respirator for more than (2) hours, then in such case said employee(s) will be paid the Group E rate for the shift.

SHIFT WORK

A single irregular work shift starting any time between 5:00 PM and 1:00 AM on governmental mandated night work shall be paid an additional \$3.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 25.85
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OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

- If Holiday falls on Sunday, it will be celebrated on Monday. If the Holiday falls on Saturday, it will be celebrated on Saturday.
- An Employee must work the scheduled working day before and the scheduled working day after a holiday to receive holiday pay.

REGISTERED APPRENTICES

WAGES: 1000 hour terms at the following percentage of Journeyworker's GROUP B wage:

1st	2nd	3rd	4th
70%	80%	85%	90%

SUPPLEMENTAL BENEFITS per hour:

1st term	\$ 23.60
2nd term	24.35
3rd term	24.73
4th term	25.10

2-785h

Laborer - Tunnel

09/01/2024

JOB DESCRIPTION Laborer - Tunnel

DISTRICT 2

ENTIRE COUNTIES

Broome, Chemung, Cortland, Schuyler, Steuben, Tioga, Tompkins

PARTIAL COUNTIES

Chenango: Entire County except the Townships of Sherburne, Columbus, and New Berlin.

Delaware: Only the Townships of Sidney, Masonville, Walton, Tompkins, Deposit, Hancock and Colchester.

WAGES

Per hour:

GROUP A: Change House Man

GROUP B: Miners and all Machine Men, Safety Miner, All Shaft work, Caisson work, Drilling, Blow Pipe, all Air Tools, Tugger, Scaling, Nipper, Guniting pot to nozzle, Bit Grinder, Signal Man (top and bottom), Concrete Man, Shield Driven Tunnels, mixed face and soft ground, liner plate tunnels in free air.

GROUP C: Blaster

GROUP D: Hazardous waste removal work on a State and/or Federally designated waste site where relevant State and/or Federal regulations require employees to use or wear required forms of personal protection.

07/01/2024

Group A	\$ 38.74
Group B	38.94
Group C	41.74
Group D	41.94

IMPORTANT NOTES:

- When an employee is required by the employer and/or by the material data safety sheets of a product, during its application, to wear a half or full face replaceable cartridge respirator for more then (2) hours, then in such case said employee(s) will be paid the Group D rate for the shift.

SHIFT WORK

A single irregular work shift starting any time between 5:00 PM and 1:00 AM on governmental mandated night work shall be paid an additional \$3.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 25.85

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

- If Holiday falls on Sunday, it will be celebrated on Monday. If the Holiday falls on Saturday, it will be celebrated on Friday.

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

If the holiday falls on Saturday, it will be celebrated on Friday. If the holiday falls on Sunday, it will be celebrated on Monday

REGISTERED APPRENTICES

WAGES: 1000 hour terms at the following percentage of Group B wage

1st	2nd	3rd	4th
70%	80%	85%	90%

SUPPLEMENTAL BENEFITS per hour:

1st Term	\$ 10.25
2nd Term	10.25
3rd Term	18.25
4th Term	25.85

2-785T

Lineman Electrician

09/01/2024

JOB DESCRIPTION Lineman Electrician

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

A Lineman/Technician shall perform all overhead aerial work. A Lineman/Technician on the ground will install all electrical panels, connect all grounds, install and connect all electrical conductors, assembly of all electrical materials, conduit, pipe, or raceway; placing of fish wire; pulling of cables, wires or fiber optic cable through such raceways; splicing of conductors; dismantling of such structures, lines or equipment.

Crane Operators: Operation of any type of crane on line projects.

Crawler Backhoe: Operation of tracked excavator/crawler backhoe with 1/2 yard bucket or larger on line projects.

Digging Machine Operator: All other digging equipment and augering on line projects.

A Groundman/Truck Driver shall: Build and set concrete forms, handle steel mesh, set footer cages, transport concrete in a wheelbarrow, hand or machine concrete vibrator, finish concrete footers, mix mortar, grout pole bases, cover and maintain footers while curing in cold weather, operate jack hammer, operate hand pavement breaker, tamper, concrete and other motorized saws, as a drill helper, operate and maintain generators, water pumps, chainsaws, sand blasting, operate mulching and seeding machine, air tools, electric tools, gas tools, load and unload materials, hand shovel and/or broom, prepare and pour mastic and other fillers, assist digger operator/equipment operator in ground excavation and restoration, landscape work and painting. Only when assisting a lineman technician, a groundman/truck driver may assist in installing conduit, pipe, cables and equipment.

NOTE: Includes Teledata Work within ten (10) feet of High Voltage Transmission Lines. Also includes digging of holes for poles, anchors, footer, and foundations for electrical equipment.

Below rates applicable on all overhead and underground distribution and maintenance work, and all overhead and underground transmission line work and the installation of fiber optic cable where no other construction trades are or have been involved. Includes access matting for line work.

Per hour: 07/01/2024

Group A:

Lineman, Technician	\$ 58.90
Crane, Crawler Backhoe	58.90
Welder, Cable Splicer	58.90

Group B:

Digging Mach. Operator	53.01
Tractor Trailer Driver	50.07
Groundman, Truck Driver	47.12
Equipment Mechanic	47.12
Flagman	35.34

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all electrical sub-stations, switching structures, fiber optic cable and all other work not defined as "Utility outside electrical work." Includes access matting for line work.

Group A:

Lineman, Technician	\$ 58.90
Crane, Crawler Backhoe	58.90
Cable Splicer	64.79
Certified Welder,	

Pipe Type Cable 61.85

Group B:

Digging Mach. Operator 53.01
Tractor Trailer Driver 50.07
Groundman, Truck Driver 47.12
Equipment Mechanic 47.12
Flagman 35.34

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all switching structures, maintenance projects, railroad catenary install/maintenance third rail installation, bonding of rails and pipe type cable and installation of fiber optic cable. Includes access matting for line work.

Group A:

Lineman, Tech, Welder \$ 60.22
Crane, Crawler Backhoe 60.22
Cable Splicer 66.24
Certified Welder,
Pipe Type Cable 63.23

Group B:

Digging Mach. Operator 54.20
Tractor Trailer Driver 51.19
Groundman, Truck Driver 48.18
Equipment Mechanic 48.18
Flagman 36.13

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all overhead and underground transmission line work & fiber optic cable where other construction trades are or have been involved. This applies to transmission line work only, not other construction. Includes access matting for line work.

Group A:

Lineman, Tech, Welder \$ 61.41
Crane, Crawler Backhoe 61.41

Group B:

Digging Mach. Operator 55.27
Tractor Trailer Driver 52.20
Groundman, Truck Driver 49.13
Equipment Mechanic 49.13
Flagman 36.85

Additional \$1.00 per hour for entire crew when a helicopter is used.

SHIFT WORK

THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1ST SHIFT 8:00 AM to 4:30 PM REGULAR RATE
2ND SHIFT 4:30 PM to 1:00 AM REGULAR RATE PLUS 17.3 %
3RD SHIFT 12:30 AM to 9:00 AM REGULAR RATE PLUS 31.4 %

SUPPLEMENTAL BENEFITS

Per hour:

07/01/2024

Group A

\$ 30.90
*plus 7% of
the hourly
wage paid

Group B

\$ 26.90
*plus 7% of
the hourly
wage paid

*The 7% is based on the hourly wage paid, straight time or premium time.

OVERTIME PAY

See (B, E, Q, X) on OVERTIME PAGE. NOTE: Double time for all emergency work designated by the Dept. of Jurisdiction.
 WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.
 Overtime See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES

WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyworker's Lineman wage.

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS per hour:

07/01/2024
 \$ 26.90
 *plus 7% of
 the hourly
 wage paid

*The 7% is based on the hourly wage paid, straight time or premium time.

6-1249a

Lineman Electrician - Teledata

09/01/2024

JOB DESCRIPTION Lineman Electrician - Teledata

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour:

For outside work, stopping at first point of attachment (demarcation).

	07/01/2024	01/01/2025
Cable Splicer	\$ 39.24	\$ 40.81
Installer, Repairman	\$ 37.24	\$ 38.73
Teledata Lineman	\$ 37.24	\$ 38.73
Tech., Equip. Operator	\$ 37.24	\$ 38.73
Groundman	\$ 19.74	\$ 20.53

NOTE: EXCLUDES Teledata work within ten (10) feet of High Voltage (600 volts and over) transmission lines. For this work please see LINEMAN.

SHIFT WORK

THE FOLLOWING RATES APPLY WHEN THE CONTRACTING AGENCY MANDATES MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION ARE WORKED. WHEN TWO (2) OR THREE (3) SHIFTS ARE WORKED THE FOLLOWING RATES APPLY:

1ST SHIFT	REGULAR RATE
2ND SHIFT	REGULAR RATE PLUS 10%
3RD SHIFT	REGULAR RATE PLUS 15%

SUPPLEMENTAL BENEFITS

	07/01/2024	01/01/2025
Journeyworker	\$ 5.70	\$ 5.70
	*plus 3% of the hour wage paid	*plus 3% of the hour wage paid

*The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6, 16) on HOLIDAY PAGE

6-1249LT - Teledata

Lineman Electrician - Traffic Signal, Lighting

09/01/2024

JOB DESCRIPTION Lineman Electrician - Traffic Signal, Lighting

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schoharie, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Lineman/Technician shall perform all overhead aerial work. A Lineman/Technician on the ground will install all electrical panels, connect all grounds, install and connect all electrical conductors which includes, but is not limited to road loop wires; conduit and plastic or other type pipes that carry conductors, flex cables and connectors, and to oversee the encasement or burial of such conduits or pipes.

Crane Operators: Operation of any type of crane on Traffic Signal/Lighting projects.

Crawler Backhoe: Operation of tracked excavator/crawler backhoe with 1/2 yard bucket or larger on Traffic Signal/Lighting projects.

Digging Machine Operator: All other digging equipment and augering on Traffic Signal/Lighting projects.

A Groundman/Truck Driver shall: Build and set concrete forms, handle steel mesh, set footer cages, transport concrete in a wheelbarrow, hand or machine concrete vibrator, finish concrete footers, mix mortar, grout pole bases, cover and maintain footers while curing in cold weather, operate jack hammer, operate hand pavement breaker, tamper, concrete and other motorized saws, as a drill helper, operate and maintain generators, water pumps, chainsaws, sand blasting, operate mulching and seeding machine, air tools, electric tools, gas tools, load and unload materials, hand shovel and/or broom, prepare and pour mastic and other fillers, assist digger operator/equipment operator in ground excavation and restoration, landscape work and painting. Only when assisting a lineman technician, a groundman/truck driver may assist in installing conduit, pipe, cables and equipment.

A flagger's duties shall consist of traffic control only.

Per hour: 07/01/2024

Group A:

Lineman, Technician \$ 50.54
 Crane, Crawler Backhoe 50.54
 Certified Welder 53.07

Group B:

Digging Machine 45.49
 Tractor Trailer Driver 42.96
 Groundman, Truck Driver 40.43
 Equipment Mechanic 40.43
 Flagman 30.32

Above rates are applicable for installation, testing, operation, maintenance and repair on all Traffic Control (Signal) and Illumination (Lighting) projects, Traffic Monitoring Systems, and Road Weather Information Systems. Includes digging of holes for poles, anchors, footer foundations for electrical equipment; assembly of all electrical materials or raceway; placing of fish wire; pulling of cables, wires or fiber optic cable through such raceways; splicing of conductors; dismantling of such structures, lines or equipment.

SHIFT WORK

THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1ST SHIFT 8:00 AM TO 4:30 PM REGULAR RATE
 2ND SHIFT 4:30 PM TO 1:00 AM REGULAR RATE PLUS 17.3%
 3RD SHIFT 12:30 AM TO 9:00 AM REGULAR RATE PLUS 31.4%

SUPPLEMENTAL BENEFITS

Per hour worked:

07/01/2024

Group A \$ 30.90
*plus 7% of
the hourly
wage paid

Group B \$ 26.90
*plus 7% of
the hourly
wage paid

*The 7% is based on the hourly wage paid, straight time or premium time.

OVERTIME PAY

See (B, E, Q, X) on OVERTIME PAGE. NOTE: Double time for all emergency work designated by the Dept. of Jurisdiction.

WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

Overtime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES

WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyworker's Lineman wage.

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS per hour:

07/01/2024

\$ 26.90
*plus 7% of
the hourly
wage paid

*The 7% is based on the hourly wage paid, straight time or premium time.

6-1249a-LT

Lineman Electrician - Tree Trimmer

09/01/2024

JOB DESCRIPTION Lineman Electrician - Tree Trimmer

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Applies to line clearance, tree work and right-of-way preparation on all new or existing energized overhead or underground electrical, telephone and CATV lines. This also includes stump removal near underground energized electrical lines including telephone and CATV lines.

Per hour: 07/01/2024

Tree Trimmer	\$ 31.44
Equipment Operator	27.80
Equipment Mechanic	27.80
Truck Driver	23.15
Groundman	19.07
Flag person	15.00*

*NOTE-Rate effective on 01/01/2025 - \$15.50 due to minimum wage increase.

SUPPLEMENTAL BENEFITS

Per hour:

07/01/2024

Journeyworker \$ 10.48
 *plus 4.5% of
 the hourly
 wage paid

* The 4.5% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q, X) on OVERTIME PAGE

WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid: See (5, 6, 8, 15) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 15, 16, 25) on HOLIDAY PAGE

NOTE: All paid holidays falling on a Saturday shall be observed on the preceding Friday. All paid holidays falling on a Sunday shall be observed on the following Monday.

6-1249TT

Mason - Building

09/01/2024

JOB DESCRIPTION Mason - Building

DISTRICT 5

ENTIRE COUNTIES

Broome, Chenango, Delaware, Otsego, Tioga

WAGES

Per hour: 07/01/2024

Building:

Bricklayer, Cement \$ 34.34

Mason, Plasterer, Stone

Mason, Tuck Pointer

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 27.26

OVERTIME PAY

See (B,E,E2*,Q) on OVERTIME PAGE

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following rates:

1st	2nd	3rd	4th
\$ 21.89	\$ 27.04	\$ 28.22	\$ 30.91

Supplemental benefits per hour:

1st	2nd	3rd	4th
\$ 22.31	\$ 22.95	\$ 25.64	\$ 26.82

5-3B - Bing - Z2

Mason - Heavy&Highway

09/01/2024

JOB DESCRIPTION Mason - Heavy&Highway

DISTRICT 5

ENTIRE COUNTIES

Allegany, Broome, Chautauqua, Chemung, Chenango, Cortland, Delaware, Genesee, Livingston, Monroe, Ontario, Orleans, Otsego, Schuyler, Seneca, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

PARTIAL COUNTIES

Cattaraugus: Entire county except in the Township of Perrysburg and the Village of Gowanda only the Bricklayer classification applies.

Erie: Only the Bricklayer classification applies.

Niagara: Only the Bricklayer classification applies.

WAGES

Per hour: 07/01/2024
Heavy & Highway:
Cement Mason \$ 37.88
Bricklayer 37.88

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 24.53

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

1500 hour terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
50%	60%	70%	80%

Supplemental benefits per hour:

1st term	\$ 14.53
2nd term	\$ 23.57
3rd term	\$ 23.81
4th term	\$ 24.05

5-3h

Mason - Tile Finisher

09/01/2024

JOB DESCRIPTION Mason - Tile Finisher

DISTRICT 5

ENTIRE COUNTIES

Broome, Chenango, Cortland, Delaware, Otsego, Tioga, Tompkins

WAGES

Wages
Per hour: 07/01/2024
Building:
Marble, Slate, Terrazzo \$ 32.00
and Tile Finisher

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman \$ 21.47

OVERTIME PAY

See (B,E,E2*,Q) on OVERTIME PAGE

*Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following wage:

1st	2nd	3rd
\$ 19.20	\$ 22.40	\$ 25.60

Supplemental benefits per hour:

1st	2nd	3rd
\$ 13.89	\$ 14.28	\$ 18.73

5-3TF - Z4

Mason - Tile Setter **09/01/2024**

JOB DESCRIPTION Mason - Tile Setter **DISTRICT 5**

ENTIRE COUNTIES
 Broome, Chemung, Chenango, Cortland, Delaware, Otsego, Schuyler, Steuben, Tioga, Tompkins

PARTIAL COUNTIES
 Allegany: Towns of Alfred, Almond, Andover and Burns.

WAGES
 Wages
 Per Hour: 07/01/2024
 Building:
 Marble, Slate, Terrazzo and Tile Setter \$ 34.24

SUPPLEMENTAL BENEFITS
 Per hour:
 Journeyman \$ 25.01

OVERTIME PAY
 See (B,E,E2*,Q) on OVERTIME PAGE
 *Note - Or other conditions beyond the employer's control such as fire or natural disaster.

HOLIDAY
 Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
 Wages per hour:

One year terms at the following wage:

1st	2nd	3rd	4th
\$ 20.54	\$ 23.97	\$ 27.39	\$ 30.82

Supplemental benefits per hour:

1st	2nd	3rd	4th
\$ 14.36	\$ 14.82	\$ 24.06	\$ 24.53

5-3TS - Z4

Millwright **09/01/2024**

JOB DESCRIPTION Millwright **DISTRICT 6**

ENTIRE COUNTIES
 Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES
 THE FOLLOWING RATE APPLIES TO ANY GAS/STEAM TURBINE AND OR RELATED COMPONENT WORK, INCLUDING NEW INSTALLATIONS OR MAINTENANCE AND ANY/ALL WORK PERFORMED WITHIN THE PROPERTY LIMITS OF A NUCLEAR FACILITY.

Per hour:	07/01/2024	07/01/2025
Millwright - Power Generation	\$ 45.00	Additional \$2.50*

* To be allocated at a later date.

NOTE: ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount subject to any overtime premiums):

- Certified Welders shall receive an additional \$1.75 per hour provided they are directed to perform Certified Welding.
- If a work site has been declared a hazardous site by the Owner and the use of protective gear (including, as a minimum, air purifying canister-type chemical respirators) is required, then that employee shall receive an additional \$1.50 per hour.
- An employee performing the work of a machinist shall receive an additional \$2.00 per hour. For the purposes of this premium to apply, a "machinist" is a person who uses a lathe, Bridgeport, milling machine or similar type of tool to make or modify parts.
- When performing work underground at 500 feet and below, the employee shall receive an additional \$1.00 per hour.

SUPPLEMENTAL BENEFITS
 Per hour paid:

Journeyworker \$ 27.95*

*NOTE: Subject to OT premium

OVERTIME PAY

See (B, E, E2, Q, V) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: Any holiday that falls on Sunday shall be observed the following Monday. Any holiday that falls on Saturday shall be observed the preceding Friday.

REGISTERED APPRENTICES

WAGES per hour: One year terms at the following percentage of Journeyworker's wage:

Appr. 1st year	65 %*
Appr. 2nd year	75 %*
Appr. 3rd year	80 %*
Appr. 4th year	90 %*

*NOTE: Additional premium for the following work listed below:

Certified Welder	\$ 1.75
Hazardous Waste Work	1.50
Machinist	2.00
Underground (500' and below)	1.00

SUPPLEMENTAL BENEFITS per hour:

Appr. 1st year	\$ 11.89
Appr. 2nd year	23.14
Appr. 3rd year	24.74
Appr. 4th year	26.35

6-1163Power

Millwright

09/01/2024

JOB DESCRIPTION Millwright

DISTRICT 6

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Herkimer, Madison, Seneca, Tioga, Yates

WAGES

Per hour:	07/01/2024	07/01/2025
		Additional
Building	\$ 36.00	\$ 3.00*
Heavy & Highway	39.50	3.00*

* To be allocated at a later date.

NOTE: ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount subject to any overtime premiums):

- Certified Welders shall receive an additional \$1.75 per hour provided he/she is directed to perform certified welding.
- On Building projects, If a work site has been declared a hazardous site by the Owner and the use of protective gear (including, as a minimum, air purifying canister-type chemical respirators) are required, then that employee shall receive an additional \$1.50 per hour.
- H/H work performed on hazardous waste sites where employees are required to wear protective gear shall receive an additional \$2.00 per hour over the Millwright H/H rate for all hours worked on the day protective gear was worn.
- An employee performing the work of a machinist shall receive an additional \$2.00 per hour. For the purposes of this premium to apply, a "machinist" is a person who uses a lathe, Bridgeport, milling machine or similar type of tool to make or modify parts.
- When performing work underground at 500 feet and below, the employee shall receive an additional \$1.00 per hour.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker \$ 25.54

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: Any holiday that falls on Sunday shall be observed the following Monday. Any holiday that falls on a Saturday shall be observed the preceding Friday.

REGISTERED APPRENTICES

WAGES per hour: One year terms at the following percentage of Journeyworker's wage:

Appr. 1st year	65 %*
Appr. 2nd year	75 %*
Appr. 3rd year	80 %*
Appr. 4th year	90 %*

*NOTE: Additional premium for the following work listed below:

Certified Welder	\$ 1.75
Hazardous Waste (Bldg)	1.50
Hazardous Waste (H/H)	2.00
Machinist	2.00
Underground (500' and below)	1.00

SUPPLEMENTAL BENEFITS per hour:

Appr. 1st year	\$ 11.89
Appr. 2nd year	21.45
Appr. 3rd year	22.81
Appr. 4th year	24.18

6-1163 Zone 2

Operating Engineer - Building

09/01/2024

JOB DESCRIPTION Operating Engineer - Building

DISTRICT 1

ENTIRE COUNTIES

Broome, Chenango, Tioga

PARTIAL COUNTIES

Dutchess: Defined as north of the northern boundary line of City of Poughkeepsie then due east to Route 115 to Bedell Road then east along Bedell Road to VanWagner Road then north along VanWagner Road to Bower Road then east along Bower Road to Rte. 44 east to Route 343 then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to Connecticut.

WAGES

NOTE:

--In the event that equipment listed below is operated by robotic control, the classification covering the operation will be the same as if manually operated.

--If a second employee is required by the employer for operation of any covered machine, they shall be an Engineer Class C

CLASS A1*: All cranes that require NYS crane license, tower cranes**(including self erecting), hydraulic cranes, locomotive crane, piledriver, cableway, derricks, whirlyies, dragline, boom trucks, cherry pickers, overhead cranes (gantry or saddle type), truck cranes

CLASS A:

Shovel, Excavators 18,001 lbs. and above(including rubber tire full swing), Gradalls, power road grader, all CMI equipment, front-end rubber tire loader, tractor-mounted drill (quarry master), mucking machine, concrete central mix plant, concrete pump, belcrete system, automated asphalt concrete plant, and tractor road paver, boom trucks 5 tons and under, maintenance engineer, self-contained crawler drill-hydraulic rock drill, Profiler/Milling machine.

CLASS B:

Excavators 18,000 lbs. and under, Backhoes (rubber tired backhoe/loader combination), bulldozer, pushcat, tractor, traxcavator, scraper, LeTourneau grader, form fine grader, self-propelled soil compactor (fill roller), asphalt roller, blacktop spreader, power brooms, sweepers, trenching machine, Barber Green loader, side booms, hydro hammer, concrete spreader, concrete finishing machine, one drum hoist, power hoisting (single drum), hoist two drum or more, three drum engine, power hoisting (two drum and over), two drum and swinging engine, three drum swinging engine, hod hoist, A-L frame winches, core and well drillers (one drum), post hole digger, model CHB Vibro-Tamp or similar machine, batch bin and plant operator, dinky locomotive, skid steer loader, track excavator 5/8 cubic yard or smaller, front end rubber tired loader under four cubic yards, vacuum machine (mounted or towed).

CLASS C:

Fork lift, high lift, all terrain fork lift: or similar, oiler, fireman and heavy-duty greaser, boilers and steam generators, pump, vibrator, motor mixer, air compressor, dust collector, welding machine, well point, mechanical heater, generators, temporary light plants, electric submersible pumps 4" and over, murphy type diesel generator, conveyor, elevators, concrete mixer, beltcrete power pack (belcrete system), seeding, and mulching machines, pumps, rotating telehandler (that does not require NYS crane license).

WAGES per hour

07/01/2024

07/01/2025

Class A1*	\$ 49.65	\$ 51.71
Class A	47.25	49.31
Class B	46.79	48.85
Class C	44.48	46.54

(*) TONNAGE RATING PREMIUMS:

Note: Additional value subject to same premiums as shown for OT

- All cranes 1000 tons and over, A1 rate plus \$7.00
- All cranes 800-999 tons, A1 rate plus \$6.00
- All cranes 600-799 tons, A1 rate plus \$5.00
- All cranes 400-599 tons, A1 rate plus \$4.00
- All cranes 200-399 tons, A1 rate plus \$3.00
- All cranes 111-199 tons, A1 rate plus \$2.25
- All cranes 110 tons and under, A1 rate only

(**)Additional \$0.50 per hr over A1 rate for Tower Cranes (no tonnage premium applies)

Additional \$2.50 per hr over B rate for Nuclear Leader work.

Additional \$2.50 per hour if work requires Personal Protective Equipment for hazardous waste site activities with a level C or over rating.

SUPPLEMENTAL BENEFITS

Per hour

	07/01/2024	07/01/2025
Journeyworker	\$ 31.85	\$ 32.95

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: All hours worked on designated holidays shall be paid a double the hourly rate of pay plus 8 hours of straight time.

NOTE: If a holiday falls on Sunday, it will be celebrated on Monday. If the holiday falls on Saturday, it will be celebrated on Friday.

REGISTERED APPRENTICES

Wages per hour

1000 hours terms at the following percentage of Journeyworker's wage Class B:

1st	2nd	3rd	4th
60%	70%	80%	90%

Supplemental Benefits per hour worked

	07/01/2024	07/01/2025
All terms	\$ 27.25	\$ 28.35

1-158 BCT

Operating Engineer - Heavy&Highway

09/01/2024

JOB DESCRIPTION Operating Engineer - Heavy&Highway

DISTRICT 1

ENTIRE COUNTIES

Albany, Broome, Chenango, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Tioga, Warren, Washington

PARTIAL COUNTIES

Dutchess: Defined as north of the northern boundary line of City of Poughkeepsie then due east to Route 115 to Bedell Road then east along Bedell Road to VanWagner Road then north along VanWagner Road to Bower Road then east along Bower Road to Rte. 44 east to Route 343 then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to Connecticut.

WAGES

NOTE:

--- In the event that equipment listed below is operated by robotic control, the classification covering the operation will be the same as if manually operated.

--- If a second employee is required by the employer for operation of any covered machine, they shall be an Engineer Class C

CLASSIFICATION A1*: All Cranes that require a NYS Crane License; tower cranes(including self erecting)**, hydraulic cranes, locomotive crane, piledriver, cableway, derricks, whirlies, dragline, boom trucks, cherry pickers, overhead cranes (gantry or saddle type), truck cranes

CLASSIFICATION A:

Asphalt Curb Machine (Self Propelled, Slipform), Asphalt Paver, Automated Concrete Spreader (CMI Type), Automatic Fine Grader, Backhoe (Except Tractor Mounted, Rubber Tired), Backhoe Excavator Full Swing (CAT 212 or similar type), Back Filling Machine, Belt Placer (CMI Type), Blacktop Plant (Automated), Blacktop Roller, Boom truck, GPS operated Bull Dozer, Cableway, Caisson Auger, Central Mix Concrete Plant (Automated), Concrete Curb Machine (Self Propelled, Slipform), Concrete Pump, Crane, Cherry Picker, Derricks (steel erection), Dragline, Overhead Crane (Gantry or Straddle type), Pile Driver, Truck Crane, Directional Drilling Machine, Dredge, Dual Drum Paver, Excavator (All Purpose Hydraulically Operated) (Gradall or Similar), Front End Loader (4 cu. yd. and Over), Head Tower (Sauerman or Equal), Hoist (Two or Three Drum), Holland Loader, Maintenance Engineer, Mine Hoist, Mucking Machine or Mole, PB-4 and similar type, Power Grader, Profiler/Milling Machine (over 105 H.P.), Quad 9, Quarry Master (or equivalent), Rotating Telehandler, Scraper (Including Challenger Type), Shovel, Side Boom, Slip Form Paver (If a second man is needed, he shall be an Oiler), Tractor Drawn BeltType Loader, Truck or Trailer Mounted Log Chipper (Self Feeder), Tug Operator (Manned Rented Equipment Excluded), Tunnel Shovel

CLASSIFICATION B:

Backhoe (Tractor Mounted, Rubber Tired), Bituminous Recycler Machine, Bituminous Spreader and Mixer, Blacktop Plant (Non-Automated), Blast or Rotary Drill (Truck or Tractor Mounted), Brokk, Boring Machine, Cage Hoist, Central Mix Plant [(Non-Automated) and All Concrete Batching Plants], Concrete Paver (Over 16S), Crawler Drill (Self-contained), Crusher, Diesel Power Unit, Drill Rigs, Tractor Mounted, Front End Loader (Under 4 cu. yd.), Greaseman/Lubrication Engineer, Hi Pressure Boiler (15 lbs. and over), Hoist (One Drum), Hydro-Axe, Kolman Plant Loader and Similar Type Loaders (If Employer requires another man to clean the screen or to maintain the equipment, he shall be an Oiler), L.C.M. Work Boat Operator, Locomotive, Material handling knuckle boom, Mini Excavator (under 18,000 lbs.), Mixer (for stabilized base self-propelled), Monorail Machine, Plant Engineer, Prentice Loader, Profiler/Milling Machine (105 H.P. and under), Pug Mill, Pump Crete, Ready Mix Concrete Plant, Refrigeration Equipment (for soil stabilization), Road Widener, Roller (all above subgrade), Sea Mule, Self-contained Ride-on Rock Drill(Excluding Air-Track Type Drill), Skidder, Tractor with Dozer and/or Pusher, Trencher, Tugger Hoist, Vacuum machine (mounted or towed), Vermeer saw (ride on, any size or type), Welder, Winch, Winch Cat

CLASSIFICATION C:

A Frame Winch Hoist on Truck, Articulated Heavy Hauler, Aggregate Plant, Asphalt or Concrete Grooving Machine (ride on), Ballast Regulator(Ride-on), Boiler (used in conjunction with production), Bituminous Heater (self-propelled), Boat (powered), Cement and Bin Operator, Concrete Pavement Spreader and Finisher Concrete Paver or Mixer (16' and under), Concrete Saw (self-propelled), Conveyor, Deck Hand, Directional Drill Machine Locator, Drill (Core and Well), Farm Tractor with accessories, Fine Grade Machine, Fireman, Fork Lift, Form Tamper, Grout Pump, Gunit Machine, Hammers (Hydraulic self-propelled), Hydra-Spiker (ride-on), Hydraulic Pump (jacking system), Hydro-Blaster (Water), Mulching Machine, Oiler, Parapet Concrete or Pavement Grinder, Post Hole Digger and Post Driver, Power Broom (towed), Power Heaterman, Power Sweeper, Revinus Widener, Roller (Grade and Fill), Scarifier (ride-on), Shell Winder, Skid steer loader (Bobcat or similar; including all attachments), Span-Saw (ride-on), Steam Cleaner, Tamper (ride-on), Tie Extractor (ride-on), Tie Handler (ride-on), Tie Inserter (ride-on), Tie Spacer (ride-on), Tire Repair, Track Liner (ride-on), Tractor, Tractor (with towed accessories), Vibratory Compactor, Vibro Tamp, Well Point, and the following hands-off equipment: Compressors, Dust Collectors, Generators, Pumps, Welding Machines, Light Plants and Heaters

WAGES per hour

	07/01/2024	07/01/2025
Class A1*	\$ 57.01	\$ 58.91
Class A	54.90	57.30
Class B	53.99	56.39
Class C	51.42	53.82

(*) TONNAGE RATING PREMIUMS:

- Cranes over 1000 tons, A1 rate plus \$7.00
- Cranes from 800-999 tons, A1 rate plus \$6.00
- Cranes from 600-799 tons, A1 rate plus \$5.00
- Cranes from 400-599 tons, A1 rate plus \$4.00
- Cranes from 200-399 tons, A1 rate plus \$3.00
- Cranes from 111-199 tons, A1 rate plus \$2.00
- Cranes from 65-110 tons, A1 rate plus \$1.50
- Cranes from 0-64 Tons, A1 rate only

NOTE: Additional value subject to same premiums as shown for OT

() Tower Cranes, A1 rate plus \$3.00 (no tonnage premiums apply)**

- Cranes in Luffer Configuration, A1 rate plus \$5.00
 - Cranes with external ballast (tray or wagon), A1 rate plus \$5.00
- NOTE: Additional value subject to same premiums as shown for OT

Additional \$2.50 per hr. for hazardous waste removal work on State and/or Federally designated waste site which require employees to wear Level C or above forms of personal protection.

SHIFT WORK

Additional \$2.50 per hour for All Employees who work a single irregular work shift, of at least 5 consecutive days, starting from 5:00 PM to 1:00 AM that is mandated by the Contracting Agency.

SUPPLEMENTAL BENEFITS

Per hour

	07/01/2024	07/01/2025
Journeyworker	\$ 32.60	\$ 33.70

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: If the holiday falls on Sunday, it will be observed on Monday. If the observed Monday Holiday is worked, pay shall be double time plus Holiday pay for time worked. If the Holiday falls on a Saturday and is worked pay shall be double time plus Holiday pay for time worked. If the Holiday falls on a Saturday employer can choose to observe the paid holiday Saturday or give Friday off with holiday pay.

REGISTERED APPRENTICES

Wages per hour

1000 hours terms at the following percentage of Journeyworker's wage Class B

1st	2nd	3rd	4th
60%	70%	80%	90%

Supplemental Benefits per hour worked

	07/01/2024	07/01/2025
All Terms	\$ 27.45	\$ 28.30

1-158H/H Alb

Operating Engineer - Survey Crew

09/01/2024

JOB DESCRIPTION Operating Engineer - Survey Crew

DISTRICT 12

ENTIRE COUNTIES

Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuylar, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north.

Genesee: Only the portion of the county that lies east of a line down the center of Route 98 to include all area that lies within the City of Batavia.

WAGES

These rates apply to Building, Tunnel and Heavy Highway.

Per hour:

SURVEY CLASSIFICATIONS:

Party Chief - One who directs a survey party.

Instrument Person - One who operates the surveying instruments.

Rod Person - One who holds the rods and assists the Instrument Person.

07/01/2024

Party Chief	\$ 50.65
Instrument Person	46.54
Rod Person	34.55

Additional \$3.00/hr. for Tunnel Work

Additional \$2.50/hr. for Hazardous Work Site

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 29.75
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OVERTIME PAY

See (B, E, P, *X) on OVERTIME PAGE

*Note: \$25.10/Hr. Only for "ALL" premium hours paid when worked.

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

WAGES: 1000 hour terms based on the Percentage of Rod Persons Wage:

07/01/2024

0-1000	60%
1001-2000	70%
2001-3000	80%

SUPPLEMENTAL BENEFIT per hour worked:

0-1000	\$ 21.53 / PHP \$18.45
1001-2000	24.55 / " 20.45
2001-3000	27.58/ " 22.93

NOTE: PHP is premium hours paid when worked.

12-158-545 D.H.H.

Operating Engineer - Survey Crew - Consulting Engineer

09/01/2024

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer

DISTRICT 12

ENTIRE COUNTIES

Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north.
 Genesee: Only the portion of the county that lies east of a line down the center of Route 98 to include all area that lies within the City of Batavia.

WAGES

These rates apply to feasibility and preliminary design surveying, line and grade surveying for inspection or supervision of construction when performed under a Consulting Engineer Agreement.

Per hour:

SURVEY CLASSIFICATIONS:

- Party Chief - One who directs a survey party.
- Instrument Person - One who operates the surveying instruments.
- Rod Person - One who holds the rods and assists the Instrument Person.

07/01/2024

Party Chief	\$ 50.65
Instrument Person	46.54
Rod Person	34.55

Additional \$3.00/hr. for Tunnel Work.
 Additional \$2.50/hr. for EPA or DEC certified toxic or hazardous waste work.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 29.75
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OVERTIME PAY

See (B, E, Q, *X) on OVERTIME PAGE
 *Note: \$25.10/Hr. Only for "ALL" premium hours paid when worked.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

WAGES: 1000 hour terms based on percentage of Rod Persons Wage:

07/01/2024

0-1000	60%
1001-2000	70%
2001-3000	80%

SUPPLEMENTAL BENEFIT per hour worked:

0-1000	\$ 21.53 / PHP \$18.45
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1001-2000	\$ 24.55 / "	20.45
2001-3000	\$ 26.98 / "	22.93

NOTE: PHP is premium hours paid when worked.

12-158-545 DCE

Operating Engineer - Tunnel

09/01/2024

JOB DESCRIPTION Operating Engineer - Tunnel

DISTRICT 7

ENTIRE COUNTIES

Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: Northern part of Dutchess, to the northern boundary line of the City of Poughkeepie, then due east to Route 115 to Bedell Road, then east along Bedell Road to VanWagner Road, then north along VanWagner Road to Bower Road, then east along Bower Road to Rte. 44 east to Rte. 343, then along Rte. 343 east to the northern boundary of the Town of Dover Plains and east along the northern boundary of the Town of Dover Plains, to the borderline of the State of Connecticut.
 Genesee: Only that portion of the county that lies east of a line drawn down the center of Route 98 and the entirety of the City of Batavia.

WAGES

CLASS A: Automatic Concrete Spreader (CMI Type); Automatic Fine Grader; Backhoe (except tractor mounted, rubber tired); Belt Placer (CMI Type); Blacktop Plant (automated); Cableway; Caisson Auger; Central Mix Concrete Plant (automated); Concrete Curb Machine (self-propelled slipform); Concrete Pump (8" or over); Dredge; Dual Drum Paver; Excavator; Front End Loader (4 cu. yd & over); Gradall; Head Tower (Sauerman or Equal); Hoist (shaft); Hoist (two or three Drum); Log Chipper/Loader (self-feeder); Maintenance Engineer (shaft and tunnel); any Mechanical Shaft Drill; Mine Hoist; Mining Machine(Mole and similar types); Mucking Machine or Mole; Overhead Crane (Gantry or Straddle Type); Pile Driver; Power Grader; Remote Controlled Mole or Tunnel Machine; Scraper; Shovel; Side Boom; Slip Form Paver (If a second man is needed, they shall be an Oiler); Tripper/Maintenance Engineer (shaft & tunnel); Tractor Drawn Belt-Type Loader; Tug Operator (manned rented equipment excluded); Tunnel Shovel.

CLASS B: Automated Central Mix Concrete Plant; Backhoe (topside); Backhoe (track mounted, rubber tired); Backhoe (topside); Bituminous Spreader and Mixer, Blacktop Plant (non-automated); Blast or Rotary Drill (truck or tractor mounted); Boring Machine; Cage Hoist; Central Mix Plant(non-automated); all Concrete Batching Plants; Compressors (4 or less exceeding 2,000 c.f.m. combined capacity); Concrete Pump; Crusher; Diesel Power Unit; Drill Rigs (tractor mounted); Front End Loader (under 4 cu. yd.); Grayco Epoxy Machine; Hoist (One Drum); Hoist (2 or 3 drum topside); Knuckle Boom material handler; Kolman Plant Loader & similar type Loaders (if employer requires another person to clean the screen or to maintain the equipment, they shall be an Oiler); L.C.M. Work Boat Operator; Locomotive; Maintenance Engineer (topside); Maintenance Grease Man; Mixer (for stabilized base-self-propelled); Monorail Machine; Plant Engineer; Personnel Hoist; Pump Crete; Ready Mix Concrete Plant; Refrigeration Equipment (for soil stabilization); Road Widener; Roller (all above sub-grade); Sea Mule; Shotcrete Machine; Shovel (topside); Tractor with Dozer and/or Pusher; Trencher; Tugger Hoist; Tunnel Locomotive; Vacuum Machine (mounted or towed); Welder; Winch; Winch Cat.

CLASS C: A Frame Truck; All Terrain Telescoping Material Handler; Ballast Regulator (ride-on); Compressors (4 not to exceed 2,000 c.f.m. combined capacity; or 3 or less with more than 1200 c.f.m. but not to exceed 2,000 c.f.m.); Compressors ((any size, but subject to other provisions for compressors), Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (4 or any type combination)); Concrete Pavement Spreaders and Finishers; Conveyor; Drill (core); Drill (well); Electric Pump used in conjunction with Well Point System; Farm Tractor with Accessories; Fine Grade Machine; Fork Lift; Grout Pump (over 5 cu. ft.); Gunite Machine; Hammers (hydraulic-self-propelled); Hydra-Spiker (ride-on); Hydra-Blaster (water); Hydro-Blaster; Motorized Form Carrier; Post Hole Digger and Post Driver; Power Sweeper; Roller grade & fill); Scarifer (ride-on); Span-Saw (ride-on); Submersible Electric Pump (when used in lieu of well points); Tamper (ride-on); Tie-Extractor (ride-on), Tie Handler (ride-on), Tie Inserter (ride-on), Tie Spacer (ride-on); Track Liner (ride-on); Tractor with towed accessories; Vibratory Compactor; Vibro Tamp, Well Point.

CLASS D: Aggregate Plant; Cement & Bin Operator; Compressors (3 or less not to exceed 1,200 c.f.m. combined capacity); Compressors ((any size, but subject to other provisions for compressors), Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (3 or less or any type or combination)); Concrete Saw (self-propelled); Form Tamper; Greaseman; Hydraulic Pump (jacking system); Junior Engineer; Light Plants; Mulching Machine; Oiler; Parapet Concrete or Pavement Grinder; Power Broom (towed); Power Heaterman (when used for production); Revinius Widener; Shell Winder; Steam Cleaner; Tractor.

Per hour:	07/01/2024	07/01/2025
CLASS A	\$ 55.91	\$ 58.44
CLASS B	54.69	57.22
CLASS C	51.90	54.43
CLASS D	48.89	51.42

Additional \$5.00 per hour for Hazardous Waste Work on a state or federally designated hazardous waste site where the Operating Engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin and eye protection.

CRANES:

Crane 1: All cranes, including self-erecting.

Crane 2: All Lattice Boom Cranes and all cranes with a manufacturer's rating of fifty (50) ton and over.

Crane 3: All hydraulic cranes and derricks with a manufacturer's rating of forty nine (49) ton and below, including boom trucks.

Crane 1	\$ 59.91	\$ 62.44
Crane 2	58.91	61.44
Crane 3	57.91	60.44

SUPPLEMENTAL BENEFITS

Per hour:	\$ 25.05	\$ 25.90
	+ 9.85*	+ 10.10*

* This portion of benefits subject to same premium rate as shown for overtime wages.

OVERTIME PAY

See (B, B2, E, Q, X) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE

NOTE: If a holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES

WAGES:(1000) hours terms at the following percentage of Journeyworker's Class B wage.

1st term	60%
2nd term	65%
3rd term	70%
4th term	75%

SUPPLEMENTAL BENEFITS per hour: Same as Journeyworker

7-158-832TL.

Painter **09/01/2024**

JOB DESCRIPTION Painter

DISTRICT 2

ENTIRE COUNTIES

Broome, Chenango, Tioga

WAGES

Per hour:	07/01/2024	05/01/2025	05/01/2026
		Additional	Additional
Painter	\$ 27.50	\$ 1.60*	\$ 1.85*
Taper, Paperhangers, and Vinyl hangers	28.88	1.64*	1.90*

*To be allocated at a later date.

ADDITIONAL AMOUNTS FOR SPECIFIC TYPES OF JOBSITE CONDITIONS (amount subject to any overtime premiums):

- Additional \$ 1.10 per hour for Brush and Roll Epoxy (Solvent Base Only)
- Additional \$ 0.60 per hour for Swing Scaffold, Boatswain chair, Spray helper, Steam cleaning acid and high pressure water, Power grinders with respirator
- Additional \$ 0.60 per hour for Structural steel (buildings) defined as new or old construction where ceilings, walls or the steel itself is to be painted from open trusses which require climbing or crawling without the support of solid scaffolding or scaffolding starting at the floor or ground level.
- Additional \$ 1.00 per hour for Spray Painting
- Additional \$ 1.00 per hour for Steeple Jack (Over 100 feet)
- Additional \$ 1.50 per hour for Spray Epoxy (Solvent Based)
- Additional \$ 0.90 per hour for Sandblasting

NOTE - SEE BRIDGE PAINTER RATES FOR BRIDGES & TANKS

SUPPLEMENTAL BENEFITS

Per hour:	
Journeyworker	\$ 24.08

OVERTIME PAY

See (B, E2, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE

A Holiday that falls on a Sunday will be celebrated on Monday, a holiday that falls on a Saturday will be celebrated on Friday.

REGISTERED APPRENTICES

WAGES:

Painter: 750 hour terms at the Painter Apprentice wage rate:

1st	2nd	3rd	4th	5th	6th	7th	8th
\$ 18.00	\$ 19.00	\$ 20.00	\$ 21.00	\$ 22.00	\$ 23.00	\$ 24.00	\$ 25.00

Taper: 750 hour terms at the following Journeyworker Taper Apprentice wage rate:

1st	2nd	3rd	4th	5th	6th
\$ 20.00	\$ 21.00	\$ 22.00	\$ 23.00	\$ 24.00	\$ 25.00

ADDITIONAL AMOUNTS FOR SPECIFIC TYPES OF JOBSITE CONDITIONS (amount subject to any overtime premiums):

- Additional \$ 1.10 per hour for Brush and Roll Epoxy (Solvent Base Only)
- Additional \$ 0.60 per hour for Swing Scaffold, Boatswain chair, Spray helper, Steam cleaning acid and high pressure water, Power grinders with respirator
- Additional \$ 0.60 per hour for Structural steel (buildings) defined as new or old construction where ceilings, walls or the steel itself is to be painted from open trusses which require climbing or crawling without the support of solid scaffolding or scaffolding starting at the floor or ground level.
- Additional \$ 1.00 per hour for Spray Painting
- Additional \$ 1.00 per hour for Steeple Jack (Over 100 feet)
- Additional \$ 1.50 per hour for Spray Epoxy (Solvent Based)
- Additional \$ 0.90 per hour for Sandblasting

SUPPLEMENTAL BENEFITS per hour:

Painter/Decorator:

1st	2nd	3rd	4th	5th	6th	7th	8th
\$ 6.00	\$ 7.00	\$ 8.00	\$ 9.10	\$ 11.00	\$ 11.00	\$ 13.00	\$ 14.00

Taper/Drywall Finisher:

1st	2nd	3rd	4th	5th	6th
\$ 6.00	\$ 7.00	\$ 8.00	\$ 10.00	\$ 13.00	\$ 14.00

2-178 B

Painter

09/01/2024

JOB DESCRIPTION Painter

DISTRICT 3

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauque, Chemung, Chenango, Cortland, Delaware, Erie, Genesee, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Wayne, Wyoming, Yates

WAGES

Per hour: 07/01/2024

Bridge	\$ 43.81
Tunnel	43.81
Tank*	41.81

For Bridge Painting Contracts, ALL WORKERS on and off the bridge (including Flagmen) are to be paid Painter's Rate; the contract must be ONLY for Bridge Painting.

Tank rate applies to indoor and outdoor tanks, tank towers, standpipes, digesters, waste water treatment tanks, chlorinator tanks, etc. Covers all types of tanks including but not limited to steel tanks, concrete tanks, fiberglass tanks, etc.

SHIFT WORK

Note an additional \$1.50 per hour is required when the contracting agency or project specification requires any shift to start prior to 6:00am or after 12:00 noon.

SUPPLEMENTAL BENEFITS

Per hour: \$ 31.39

OVERTIME PAY

Exterior work only See (B, E4, F*, R) on OVERTIME PAGE.

All other work See (B, F*, R) on OVERTIME PAGE.

*Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

750 hour terms at the following wage:

1st	2nd	3rd	4th	5th	6th
\$ 24.00	\$ 26.00	\$ 28.00	\$ 30.00	\$ 34.00	\$ 38.00

Supplemental benefits per hour:

1st	2nd	3rd	4th	5th	6th
\$ 6.60	\$ 6.95	\$ 7.30	\$ 7.65	\$ 8.00	\$ 8.35

3-4-Bridge, Tunnel, Tank

Painter - Metal Polisher

09/01/2024

JOB DESCRIPTION Painter - Metal Polisher

DISTRICT 8

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

	07/01/2024
Metal Polisher	\$ 39.33
Metal Polisher*	40.43
Metal Polisher**	43.33

*Note: Applies on New Construction & complete renovation

** Note: Applies when working on scaffolds over 34 feet.

SUPPLEMENTAL BENEFITS

Per Hour: 07/01/2024

Journeyworker:

All classification \$ 12.79

OVERTIME PAY

See (B, E, P, T) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 11, 15, 16, 25, 26) on HOLIDAY PAGE

Overtime: See (5, 6, 11, 15, 16, 25, 26) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour:

One (1) year term at the following wage rates:

	07/01/2024
1st year	\$ 19.67
2nd year	21.63
3rd year	23.60
1st year*	\$ 22.06
2nd year*	22.07
3rd year*	24.14
1st year**	\$ 22.17
2nd year**	24.13
3rd year**	26.10

*Note: Applies on New Construction & complete renovation

** Note: Applies when working on scaffolds over 34 feet.

Supplemental benefits:

Per hour:

1st year	\$ 8.69
2nd year	8.69

3rd year 8.69

8-8A/28A-MP

Plumber

09/01/2024

JOB DESCRIPTION Plumber

DISTRICT 2

ENTIRE COUNTIES

Broome, Chenango

PARTIAL COUNTIES

Cortland: Only the Township of Marathon.

Delaware: Only the Townships of Andes, Bovina, Colchester, Davenport, Delhi, Deposit, Franklin, Hamden, Hancock, Harpersfield, Kortright, Masonville, Meredith, Sidney, Stamford, Tompkins and Walton.

Madison: Only the Township of Georgetown.

Otsego: Only the Townships of Burlington, Butternuts, Decatur, Edmeston, Hartwick, Laurens, Maryland, Milford, Morris, New Lisbon, Oneonta, Otego, Pittsfield, Unadilla, Westford and Worchester.

Tioga: Only the Townships of Newark Valley and Owego.

WAGES

Per hour:	07/01/2024	05/01/2025 Additional	05/01/2026 Additional
Plumber	\$ 42.63	\$ 3.35*	\$ 3.45*
Steamfitter	42.63	3.35*	3.45*

*To be allocated at a later date

SHIFT WORK

Agency-mandated shift operations:

- Shift work shall start no earlier than 6AM Monday and will conclude no later than 9AM Saturday (overtime premiums applicable after 8 hours in a shift).
- Single irregular shiftwork, less than 3 consecutive days will be paid at the rate of time and one-half of the regular hourly rate.
- 3 consecutive work days or more:
 - First Shift - No Premium (Starting 6AM-9AM)
 - Second Shift - Regular hourly rate plus 12%
 - Third Shift - Regular hourly rate plus 18%

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 14.90 +17.39*
---------------	---------------------

*This portion of the benefit is subject to the SAME PREMIUM as shown for overtime on projects over \$100 million in total construction costs (including engineering & architecture).

OVERTIME PAY

See (B, E, Q, *V) on OVERTIME PAGE

*portion of supplemental benefits subject to V code when project cost is over one hundred million (including engineering & architecture).

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

When a Holiday falls on Sunday, it will be celebrated the following day. If the holiday falls on a Saturday, it will be observed that day unless so determined by the Federal Government to be celebrated on a different day.

REGISTERED APPRENTICES

WAGES: One year terms at the following percentage of Journeyworker's wage.

1st.	2nd.	3rd.	4th.	5th.
50%	55%	60%	70%	85%

SUPPLEMENTAL BENEFITS per hour:

1st term	\$ 14.90 +8.35*
All other terms	\$ 14.90 +13.39*

*This portion of the benefit is subject to the SAME PREMIUM as shown for overtime on projects over \$100 million in total construction costs (including engineering & architecture).

2-112s-SF

Roofer **09/01/2024**

JOB DESCRIPTION Roofer **DISTRICT 2**

ENTIRE COUNTIES
 Broome, Chemung, Delaware, Otsego, Schoharie, Schuyler, Steuben, Tioga, Tompkins

WAGES

Per hour:	07/01/2024	06/01/2025
		Additional
Roofer, Waterproofer	\$ 29.61	\$ 2.50**
	+ 0.99*	

*This amount is paid for all hours worked, whether regular or premium hours.

**To be allocated at a later date

NOTE ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount not subject to overtime premiums):

- On days where more than one shift is worked on the job, the hours worked after 4:30 PM and before 6:30 AM will be paid an additional \$1.90 per hour premium. This premium is not for use in emergency repair situations.
- Premium of \$1.25 per hour will be paid for the application, rip-off or handling of pitch products. The premium will be paid for pitch that is showing, covered or buried on the roof.
- Premium of \$1.25 per hour will be paid for asbestos abatement requiring a half face respirator.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker	\$ 22.24
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OVERTIME PAY
 See (B, E, Q) on OVERTIME PAGE

HOLIDAY
 Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages:

Hours per term	
0-667 Hrs.	\$ 20.73 + 0.69*
668-1335 Hrs.	22.21 + 0.74*
1336-2002 Hrs.	23.69 + 0.79*
2003-2669 Hrs.	25.17 + 0.84*
2670-3336 Hrs.	26.65 + 0.89*
3337-4000 Hrs.	28.13 + 0.94*

*This amount is paid for all hours worked, whether regular or premium hours.

NOTE ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount not subject to overtime premiums):

- On days where more than one shift is worked on the job, the hours worked after 4:30 PM and before 6:30 AM will be paid an additional \$1.90 per hour premium. This premium is not for use in emergency repair situations.
- Premium of \$1.25 per hour will be paid for the application, rip-off or handling of pitch products. The premium will be paid for pitch that is showing, covered or buried on the roof.
- Premium of \$1.25 per hour will be paid for asbestos abatement requiring a half face respirator.

Supplemental Benefits:

0-667 Hrs.	\$ 18.56
668-1335 Hrs.	19.18
1336-2002 Hrs.	19.79
2003-2669 Hrs.	20.40
2670-3336 Hrs.	21.02
3337-4000 Hrs.	21.63

2-203elmi

Sheetmetal Worker **09/01/2024**

JOB DESCRIPTION Sheetmetal Worker **DISTRICT 2**

ENTIRE COUNTIES
 Allegany, Broome, Chemung, Delaware, Otsego, Schuyler, Steuben, Tioga, Tompkins

WAGES
 Per hour:

07/01/2024

Sheetmetal Worker	\$ 37.09
	+ 0.93*
Polyresin Fiberglass	37.19
	+ 0.93*
CAD Operator	38.09
	+0.95*

*Amount is paid for every hour worked (amount not subject to overtime premium)

SUPPLEMENTAL BENEFITS

Per hour:

Journeyworker:	\$ 22.06
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OVERTIME PAY

See (*B1, Q) on OVERTIME PAGE

*On Saturday, time and one half of the hourly rate for the first ten (10) hours, then two (2) times the hourly wage rate for all hours after ten (10) hours worked.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: Holidays are observed on the Holiday, not on the day that it is locally observed.

REGISTERED APPRENTICES

WAGES per hour:

Half Year Terms

	1st	2nd	3rd	4th	5th	6th	7th	8th
07/01/2024	22.25	22.25	24.11	25.96	27.82	29.67	31.53	33.38
	+0.56*	+0.56*	+0.60*	+0.65*	+0.70*	+0.74*	+0.79*	+0.83*

*Amount is paid for every hour worked (amount not subject to overtime premium)

SUPPLEMENTAL BENEFITS per hour:

	1st	2nd	3rd	4th	5th	6th	7th	8th
07/01/2024	1.78	1.78	18.30	18.38	18.46	18.54	18.62	18.70
								2-112

Sprinkler Fitter

09/01/2024

JOB DESCRIPTION Sprinkler Fitter

DISTRICT 1

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Washington, Wayne, Wyoming, Yates

WAGES

Per hour 07/01/2024

Sprinkler Fitter	\$ 42.00
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SUPPLEMENTAL BENEFITS

Per hour

Journeyworker	\$ 28.82
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OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: When a holiday falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double time rate. When a holiday falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double time rate.

REGISTERED APPRENTICES

Wages per hour

One Half Year terms at the following wage.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 20.03	\$ 22.26	\$ 24.24	\$ 26.46	\$ 28.69	\$ 30.91	\$ 33.14	\$ 35.37	\$ 37.59	\$ 39.82

Supplemental Benefits per hour

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 9.18	\$ 9.18	\$ 20.90	\$ 20.90	\$ 21.15	\$ 21.15	\$ 21.15	\$ 21.15	\$ 21.15	\$ 21.15

1-669

Teamster - Building **09/01/2024**

JOB DESCRIPTION Teamster - Building

DISTRICT 6

ENTIRE COUNTIES

Broome, Cayuga, Cortland, Delaware, Onondaga, Seneca, Tompkins, Yates

PARTIAL COUNTIES

Allegany: Only the Townships of Almond, Burns, and Alfred.

Chenango: Only the Townships of Afton, Bainbridge, Coventry, Greene, Guilford, Oxford and Smithville.

Madison: Only the Townships of Cazenovia, DeRuyter, Fenner, Georgetown, Lenox, Nelson and Sullivan.

Oswego: All Townships except Redfield, Boylston and Sandy Creek.

Otsego: Only the Townships of Butternuts, Laurens, Maryland, Millford, Morris, Oneonta, Ottego, Unadilla, and Worchester.

Steuben: Only the Townships of Prattsburg, Canisteo, Fremont, Cohoctan, Dansville, Hornell, Hartsville, Greenwood, West Union, Troupsburg, and Jasper.

Tioga: Only the Townships of Berkshire, Candor, Newark Valley, Nichols, Owego, Richford, and Tioga. All territory east of Nichols/Smithboro to Broome County, within State of New York.

WAGES

GROUP A: Straight Trucks.

GROUP B: Tractor Trailer, Farm Tractor, Fuel Truck.

GROUP C: Euclid.

GROUP D: On site Mechanic.

Per hour:	07/01/2024	06/01/2025
Building: (under \$ 5 million*)		
GROUP A,B,C,D	\$ 31.43	\$ 34.43
Building: (over \$ 5 million*)		
GROUP A,B	\$ 32.48	\$ 35.48
GROUP C	32.83	35.83
GROUP D	32.63	35.63

* Total project cost including General Construction, Plumbing, HVAC and Electrical

SUPPLEMENTAL BENEFITS

Per hour:

(under \$5 million*)	\$ 30.02	\$ 30.87
(over \$5 million*)	30.80	31.67

* Total project cost including General Construction, Plumbing, HVAC and Electrical

OVERTIME PAY

(D, O) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE

6-317

Teamster - Heavy&Highway **09/01/2024**

JOB DESCRIPTION Teamster - Heavy&Highway

DISTRICT 2

ENTIRE COUNTIES

Broome, Delaware

PARTIAL COUNTIES

Chenango: Only the Townships of Smithville, Greene, Coventry, Oxford, Afton, Bainbridge and Guilford.

Otsego: Only the Townships of Butternuts, Laurens, Maryland, Milford, Morris, Oneonta, Ottego, Unadilla and Worchester.

Tioga: Only the Townships of Nichols, Tioga, Candor, Richford, Berkshire, Newark Valley and Owego.

WAGES

Per hour:

GROUP #1: Warehousemen, Yardmen, Truck Helpers, Pickups, Panel Trucks, Flatboy Material Trucks (straight jobs), Single Axle Dump Trucks, Dumpsters, Material Checkers and Receivers, Greasers, Truck Tiremen, Mechanic Helpers and Parts Chasers, Tandems and Batch Trucks, Mechanics, Dispatcher. Semi-Trailers, Low-boy Trucks, Asphalt Distributor Trucks, Agitator, Mixer Trucks and Dumpcrete type vehicles, Truck Mechanic, Fuel Trucks.

GROUP #2: Specialized Earth Moving Equipment-Euclid type or similar off-highway where not self-loading. Straddle (Ross) Carrier, and self-contained concrete mobile truck. Off-highway Tandem Back-Dump, Twin Engine Equipment and Double-Hitched Equipment where not self-loading.

	07/01/2024
Group #1	\$ 33.57
Group #2	33.66

NOTES

- An additional \$1.50 per hour shall be paid to an employee who performs hazardous waste removal work on a City, County, State and/or Federally designated waste site where employee is required to use or wear personal protective equipment.

SHIFT WORK

- A single irregular work shift can start any time between 5:00pm and 1:00am. All employees who work a single irregular shift on governmental mandated night work shall be paid an additional \$2.50 per hour (applicable on projects bid on or after 07/01/2020).

SUPPLEMENTAL BENEFITS

Per hour paid:

07/01/2024
\$ 27.76

OVERTIME PAY

See (B, E, Q, X) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

If a holiday falls on Sunday, it will be celebrated Monday.

Any employee laid off within the week in which a holiday falls shall receive holiday pay.

2-317(Bing)

Welder

09/01/2024

JOB DESCRIPTION Welder

DISTRICT 1

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour	07/01/2024
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Welder: To be paid the same rate of the mechanic performing the work.*

*EXCEPTION: If a specific welder certification is required, then the 'Certified Welder' rate in that trade tag will be paid.

OVERTIME PAY

HOLIDAY

1-As Per Trade

Overtime Codes

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

NOTE: Supplemental Benefits are 'Per hour worked' (for each hour worked) unless otherwise noted

- (AA) Time and one half of the hourly rate after 7 and one half hours per day
- (A) Time and one half of the hourly rate after 7 hours per day
- (B) Time and one half of the hourly rate after 8 hours per day
- (B1) Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday.
Double the hourly rate for all additional hours
- (B2) Time and one half of the hourly rate after 40 hours per week
- (C) Double the hourly rate after 7 hours per day
- (C1) Double the hourly rate after 7 and one half hours per day
- (D) Double the hourly rate after 8 hours per day
- (D1) Double the hourly rate after 9 hours per day
- (E) Time and one half of the hourly rate on Saturday
- (E1) Time and one half 1st 4 hours on Saturday; Double the hourly rate all additional Saturday hours
- (E2) Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E3) Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week
- (E4) Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E5) Double time after 8 hours on Saturdays
- (F) Time and one half of the hourly rate on Saturday and Sunday
- (G) Time and one half of the hourly rate on Saturday and Holidays
- (H) Time and one half of the hourly rate on Saturday, Sunday, and Holidays
- (I) Time and one half of the hourly rate on Sunday
- (J) Time and one half of the hourly rate on Sunday and Holidays
- (K) Time and one half of the hourly rate on Holidays
- (L) Double the hourly rate on Saturday
- (M) Double the hourly rate on Saturday and Sunday
- (N) Double the hourly rate on Saturday and Holidays
- (O) Double the hourly rate on Saturday, Sunday, and Holidays
- (P) Double the hourly rate on Sunday
- (Q) Double the hourly rate on Sunday and Holidays
- (R) Double the hourly rate on Holidays
- (S) Two and one half times the hourly rate for Holidays

- (S1) Two and one half times the hourly rate the first 8 hours on Sunday or Holidays One and one half times the hourly rate all additional hours.
- (T) Triple the hourly rate for Holidays
- (U) Four times the hourly rate for Holidays
- (V) Including benefits at SAME PREMIUM as shown for overtime
- (W) Time and one half for benefits on all overtime hours.
- (X) Benefits payable on Paid Holiday at straight time. If worked, additional benefit amount will be required for worked hours. (Refer to other codes listed.)

Holiday Codes

PAID Holidays:

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

- (1) None
- (2) Labor Day
- (3) Memorial Day and Labor Day
- (4) Memorial Day and July 4th
- (5) Memorial Day, July 4th, and Labor Day
- (6) New Year's, Thanksgiving, and Christmas
- (7) Lincoln's Birthday, Washington's Birthday, and Veterans Day
- (8) Good Friday
- (9) Lincoln's Birthday
- (10) Washington's Birthday
- (11) Columbus Day
- (12) Election Day
- (13) Presidential Election Day
- (14) 1/2 Day on Presidential Election Day
- (15) Veterans Day
- (16) Day after Thanksgiving
- (17) July 4th
- (18) 1/2 Day before Christmas
- (19) 1/2 Day before New Years
- (20) Thanksgiving
- (21) New Year's Day
- (22) Christmas
- (23) Day before Christmas
- (24) Day before New Year's
- (25) Presidents' Day
- (26) Martin Luther King, Jr. Day
- (27) Memorial Day
- (28) Easter Sunday

(29) Juneteenth

**New York State Department of Labor - Bureau of Public Work
State Office Building Campus
Building 12 - Room 130
Albany, New York 12226**

REQUEST FOR WAGE AND SUPPLEMENT INFORMATION

As Required by Articles 8 and 9 of the NYS Labor Law

Fax (518) 485-1870 or mail this form for new schedules or for determination for additional occupations.

This Form Must Be Typed

Submitted By:

(Check Only One) Contracting Agency Architect or Engineering Firm Public Work District Office Date:

A. Public Work Contract to be let by: (Enter Data Pertaining to Contracting/Public Agency)

1. Name and complete address (Check if new or change)

Telephone _____ Fax _____

E-Mail: _____

2. NY State Units (see Item 5).

- | | |
|---|--|
| <input type="checkbox"/> 01 DOT | <input type="checkbox"/> 07 City |
| <input type="checkbox"/> 02 OGS | <input type="checkbox"/> 08 Local School District |
| <input type="checkbox"/> 03 Dormitory Authority | <input type="checkbox"/> 09 Special Local District, i.e.,
Fire, Sewer, Water District |
| <input type="checkbox"/> 04 State University
Construction Fund | <input type="checkbox"/> 10 Village |
| <input type="checkbox"/> 05 Mental Hygiene
Facilities Corp. | <input type="checkbox"/> 11 Town |
| <input type="checkbox"/> 06 OTHER N.Y. STATE UNIT | <input type="checkbox"/> 12 County |
| | <input type="checkbox"/> 13 Other Non-N.Y. State
(Describe) |

3. SEND REPLY TO (check if new or change)
Name and complete address:

Telephone _____ Fax _____

E-Mail: _____

4. SERVICE REQUIRED. Check appropriate box and provide project information.

- New Schedule of Wages and Supplements.
APPROXIMATE BID DATE : _____
- Additional Occupation and/or Redetermination

PRC NUMBER ISSUED PREVIOUSLY FOR
THIS PROJECT : _____

OFFICE USE ONLY

B. PROJECT PARTICULARS

5. Project Title _____

Description of Work _____

Contract Identification Number _____

Note: For NYS units, the OSC Contract No. _____

6. Location of Project:

Location on Site _____

Route No/Street Address _____

Village or City _____

Town _____

County _____

7. Nature of Project - Check One:

1. New Building
2. Addition to Existing Structure
3. Heavy and Highway Construction (New and Repair)
4. New Sewer or Waterline
5. Other New Construction (Explain)
6. Other Reconstruction, Maintenance, Repair or Alteration
7. Demolition
8. Building Service Contract

8. OCCUPATION FOR PROJECT :

- | | |
|--|---|
| <input type="checkbox"/> Construction (Building, Heavy
Highway/Sewer/Water) | <input type="checkbox"/> Fuel Delivery |
| <input type="checkbox"/> Tunnel | <input type="checkbox"/> Guards, Watchmen |
| <input type="checkbox"/> Residential | <input type="checkbox"/> Janitors, Porters, Cleaners,
Elevator Operators |
| <input type="checkbox"/> Landscape Maintenance | <input type="checkbox"/> Moving furniture and
equipment |
| <input type="checkbox"/> Elevator maintenance | <input type="checkbox"/> Trash and refuse removal |
| <input type="checkbox"/> Exterminators, Fumigators | <input type="checkbox"/> Window cleaners |
| <input type="checkbox"/> Fire Safety Director, NYC Only | <input type="checkbox"/> Other (Describe) |

9. Does this project comply with the Wicks Law involving separate bidding? YES NO

10. Name and Title of Requester

Signature



NEW YORK STATE DEPARTMENT OF LABOR
Bureau of Public Work - Debarment List

**LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE
AWARDED ANY PUBLIC WORK CONTRACT**

Under Article 8 and Article 9 of the NYS Labor Law, a contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work or public building service contract/sub-contract with the state, any municipal corporation or public body for a period of five (5) years from the date of debarment when:

- Two (2) final determinations have been rendered within any consecutive six-year (6) period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements;
- One (1) final determination involves falsification of payroll records or the kickback of wages and/or supplements.

The agency issuing the determination and providing the information, is denoted under the heading 'Fiscal Officer'. DOL = New York State Department of Labor; NYC = New York City Comptroller's Office; AG = New York State Attorney General's Office; DA = County District Attorney's Office.

Debarment Database: To search for contractors, sub-contractors and/or their successors debarred from bidding or being awarded any public work contract or subcontract under NYS Labor Law Articles 8 and 9, or under NYS Workers' Compensation Law Section 141-b, access the database at this link: <https://apps.labor.ny.gov/EDList/searchPage.do>

For inquiries please call 518-457-5589.

NYSDOL Bureau of Public Work Debarment List 09/20/2024

Article 8

AGENCY	Fiscal Officer	FEIN	EMPLOYER NAME	EMPLOYER DBA NAME	ADDRESS	DEBARMENT START DATE	DEBARMENT END DATE
DOL	DOL	*****5754	0369 CONTRACTORS, LLC		515 WEST AVE UNIT PH 13NORWALK CT 06850	05/12/2021	05/12/2026
DOL	DOL	*****5784	A.J.M. TRUCKING, INC.		PO BOX 2064 MONROE NY 10950	02/12/2024	02/12/2029
DOL	NYC		ALL COUNTY SEWER & DRAIN, INC.		7 GREENFIELD DR WARWICK NY 10990	03/25/2022	03/25/2027
DOL	DOL	*****8387	AMERICAN PAVING & MASONRY, CORP.		8 FOREST AVE GLEN COVE NY 11542	05/24/2024	05/24/2029
DOL	DOL	*****8654	AMERICAN PAVING, INC.		8 FORREST AVE. GLEN COVE NY 11542	05/24/2024	05/24/2029
DOL	NYC		AMJED PARVEZ		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DOL		ANGELO F COKER		2610 SOUTH SALINA STREET SUITE 14SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		ANGELO GARCIA		515 WEST AVE UNIT PH 13NORWALK CT 06850	05/12/2021	05/12/2026
DOL	DOL		ANGELO STANCO		8 FOREST AVE. GLEN COVE NY 11542	05/24/2024	05/24/2029
DOL	DOL		ANGELO TONDO		449 WEST MOMBASHA ROAD MONROE NY 10950	06/06/2022	06/06/2027
DOL	DOL	*****4231	ANKER'S ELECTRIC SERVICE, INC.		10 SOUTH 5TH ST LOCUST VALLEY NY 11560	09/26/2022	09/26/2027
DOL	DOL		ANTHONY MONGELLI		PO BOX 2064 MONROE NY 10950	02/12/2024	02/12/2029
DOL	NYC		ARADCO CONSTRUCTION CORP		115-46 132RD ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	DOL		ARNOLD A. PAOLINI		1250 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	NYC		ARSHAD MEHMOOD		168-42 88TH AVENUE JAMAICA NY 11432	11/20/2019	11/20/2024
DOL	NYC		AVM CONSTRUCTION CORP		117-72 123RD ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	NYC		AZIDABEGUM		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	DOL	*****8421	B & B DRYWALL, INC		206 WARREN AVE APT 1WHITE PLAINS NY 10603	12/14/2021	12/14/2026
DOL	DOL		B&L RENOVATION CO.		618 OCEAN PARKWAY APT A6BROOKLYN NY 11230	09/17/2020	09/17/2025
DOL	DOL		BERNARD BEGLEY		38 LONG RIDGE ROAD BEDFORD NY 10506	12/18/2019	12/18/2024
DOL	NYC	*****2113	BHW CONTRACTING, INC.		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DOL	*****3627	BJB CONSTRUCTION CORP.		38 LONG RIDGE ROAD BEDFORD NY 10506	12/18/2019	12/18/2024
DOL	DOL	*****5078	BLACK RIVER TREE REMOVAL, LLC		29807 ANDREWS ROAD BLACK RIVER NY 13032	10/17/2023	10/17/2028
DOL	DOL		BRADLEY J SCHUKA		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025
DOL	DOL	*****9383	C.C. PAVING AND EXCAVATING, INC.		2610 SOUTH SALINA ST SUITE 12SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL	*****4083	C.P.D. ENTERPRISES, INC		P.O BOX 281 WALDEN NY 12586	03/03/2020	03/03/2025
DOL	DOL	*****5161	CALADRI DEVELOPMENT CORP.		1223 PARK ST. PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	DOL	*****3391	CALI ENTERPRISES, INC.		1223 PARK STREET PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	DOL	*****4155	CASA BUILDERS, INC.	FRIEDLANDER CONSTRUCTI ON	64 N PUTT CONNERS ROAD NEW PALTZ NY 12561	05/10/2023	05/10/2028
DOL	AG	*****7247	CENTURY CONCRETE CORP		2375 RAYNOR ST RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	*****0026	CHANTICLEER CONSTRUCTION LLC		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025
DOL	NYC	*****2117	CHARAN ELECTRICAL ENTERPRISES		9-11 40TH AVENUE LONG ISLAND CITY NY 11101	09/26/2023	09/26/2028
DOL	NYC		CHARLES ZAHRADKA		863 WASHINGTON STREET FRANKLIN SQUARE NY 11010	03/10/2020	03/10/2025
DOL	DOL		CHRISTOPHER GRECO		26 NORTH MYRTLE AVENUE SPRING VALLEY NY 10956	02/18/2021	02/18/2026

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DOL	DOL		CRAIG JOHANSEN		10 SOUTH 5TH ST LOCUST VALLEY NY 11560	09/26/2022	09/26/2027
DOL	DOL	*****3228	CROSS-COUNTY LANDSCAPING AND TREE SERVICE, INC.	ROCKLAND TREE SERVICE	26 NORTH MYRTLE AVENUE SPRING VALLEY NY 10956	02/18/2021	02/18/2026
DOL	DOL	*****7619	DANCO CONSTRUCTION UNLIMITED INC.		485 RAFT AVENUE HOLBROOK NY 11741	10/19/2021	10/19/2026
DOL	DOL		DANIEL ROBERT MCNALLY		7 GREENFIELD DRIVE WARWICK NY 10990	03/25/2022	03/25/2027
DOL	DOL		DARIAN L COKER		2610 SOUTH SALINA ST SUITE 2CSYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		DAVID FRIEDLANDER		64 NORTH PUTT CORNERS RD NEW PALTZ NY 12561	05/10/2023	05/10/2028
DOL	NYC		DAVID WEINER		14 NEW DROP LANE 2ND FLOORSTATEN ISLAND NY 10306	11/14/2019	11/14/2024
DOL	DOL		DINA TAYLOR		64 N PUTT CONNERS RD NEW PALTZ NY 12561	05/10/2023	05/10/2028
DOL	DOL	*****5175	EAGLE MECHANICAL AND GENERAL CONSTRUCTION LLC		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025
DOL	AG		EDWIN HUTZLER		23 NORTH HOWELLS RD BELLPORT NY 11713	08/04/2021	08/04/2026
DOL	DA		EDWIN HUTZLER		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	*****0780	EMES HEATING & PLUMBING CONTR		5 EMES LANE MONSEY NY 10952	01/20/2002	01/20/3002
DOL	DOL		EMIL KISZKO		84 DIAMOND ST BROOKLYN NY 11222	07/18/2024	07/18/2029
DOL	DOL	*****3298	EMJACK CONSTRUCTION CORP.		84 DIAMOND ST BROOKLYN NY 11222	07/18/2024	07/18/2029
DOL	DOL	*****3298	EMJACK CONSTRUCTION LLC		4192 SIR ANDREW CIRCLE DOYLESTOWN PA 18902	07/18/2024	07/18/2029
DOL	DOL		EUGENIUSZ "GINO" KUCHAR		195 KINGSLAND AVE BROOKLYN NY 11222	12/22/2023	12/22/2028
DOL	DA		FREDERICK HUTZLER		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	NYC	*****6616	G & G MECHANICAL ENTERPRISES, LLC.		1936 HEMPSTEAD TURNPIKE EAST MEDOW NY 11554	11/29/2019	11/29/2024
DOL	DOL	*****2998	G.E.M. AMERICAN CONSTRUCTION CORP.		195 KINGSLAND AVE BROOKLYN NY 11222	12/22/2023	12/22/2028
DOL	NYC		GAYATRI MANGRU		21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	DA		GEORGE LUCEY		150 KINGS STREET BROOKLYN NY 11231	01/19/1998	01/19/2998
DOL	DA		GIOVANNA TRAVALJA		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	DA		GIOVANNI NAPOLITANO		2501 BAYVIEW AVENUE WANTAGH NY 11793	02/21/2024	02/21/2029
DOL	DA	*****0213	GORILLA CONTRACTING GROUP, LLC		505 MANHATTAN AVE WEST BABYLON NY 11704	10/05/2023	10/05/2028
DOL	DA	*****4760	GTX CONSTRUCTION ASSOCIATES, CORP		2501 BAYVIEW AVE WANTAGH NY 11793	02/21/2024	02/21/2029
DOL	DOL		HANS RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL		HERBERT CLEMEN		42 FOWLER AVENUE CORTLAND MANOR NY 10567	01/24/2023	01/24/2028
DOL	DOL		HERBERT CLEMEN		42 FOWLER AVENUE CORTLAND MANOR NY 10567	10/25/2022	10/25/2027
DOL	DOL	*****9211	J. WASE CONSTRUCTION CORP.		8545 RT 9W ATHENS NY 12015	03/09/2021	03/09/2026
DOL	DOL		J.M.J CONSTRUCTION		151 OSTRANDER AVENUE SYRACUSE NY 13205	11/21/2022	11/21/2027
DOL	DOL		J.R. NELSON CONSTRUCTION		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		J.R. NELSON CONSTRUCTION		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		J.R. NELSON CONSTRUCTION		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		J.R. NELSON, LLC		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		J.R. NELSON, LLC		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		J.R. NELSON, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027

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DOL	DOL		J.R.N COMPANIES, LLC		531 THIRD STREET ALBANY NY 12206	12/12/2022	12/12/2027
DOL	DOL		J.R.N COMPANIES, LLC		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		J.R.N COMPANIES, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL	*****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL	*****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL	*****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		JAMES J. BAKER		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL	*****7993	JBS DIRT, INC.		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL	*****2435	JEFFEL D. JOHNSON	JMJ7 AND SON	5553 CAIRNSTRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JEFFEL JOHNSON ELITE CARPENTER REMODEL AND CONSTRUCTION		C2 EVERGREEN CIRCLE LIVERPOOL NY 13090	11/21/2022	11/21/2027
DOL	DOL	*****2435	JEFFREY M. JOHNSON	JMJ7 AND SON	5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	NYC		JENNIFER GUERRERO		1936 HEMPSTEAD TURNPIKE EAST MEADOW NY 11554	11/29/2019	11/29/2024
DOL	DOL		JIM PLAUGHER		17613 SANTE FE LINE ROAD WAYNEFIELD OH 45896	07/16/2021	07/16/2026
DOL	DOL		JMJ7 & SON CONSTRUCTION, LLC		5553 CAIRNS TRAIL LIVERPOOL NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 AND SONS CONTRACTORS		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS		7014 13TH AVENUE BROOKLYN NY 11228	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS AND SONS		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS, LLC		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JOHN GOCEK		14B COMMERCIAL AVE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL		JOHN MARKOVIC		47 MANDON TERRACE HAWTHORN NJ 07506	03/29/2021	03/29/2026
DOL	DOL		JOHN WASE		8545 RT 9W ATHENS NY 12015	03/09/2021	03/09/2026
DOL	DOL		JORGE RAMOS		8970 MIKE GARCIA DR MANASSAS VA 20109	07/16/2021	07/16/2026
DOL	DOL		JOSEPH K. SALERNO		1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028
DOL	DOL		JOSEPH K. SALERNO II		1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL		JRN CONSTRUCTION CO, LLC		1024 BROADWAY ALBANY NY 12204	11/07/2023	11/07/2028
DOL	DOL	*****1147	JRN CONSTRUCTION, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL	*****1147	JRN CONSTRUCTION, LLC		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL	*****1147	JRN CONSTRUCTION, LLC		531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028

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DOL	DOL		JRN PAVING, LLC	531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		JRN PAVING, LLC	531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		JRN PAVING, LLC	531 THIRD STREET ALBANY NY 12206	11/07/2023	11/07/2028
DOL	DOL		JULIUS AND GITA BEHREND	5 EMES LANE MONSEY NY 10952	11/20/2002	11/20/3002
DOL	DOL		KARIN MANGIN	796 PHELPS ROAD FRANKLIN LAKES NJ 07417	12/01/2020	12/01/2025
DOL	DOL		KATE E. CONNOR	7088 INTERSTATE ISLAND RD SYRACUSE NY 13209	03/31/2021	03/31/2026
DOL	DOL		KEAN INDUSTRIES, LLC	2345 RT. 52 SUITE 2NHOPEWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	DOL	*****2959	KELC DEVELOPMENT, INC	7088 INTERSTATE ISLAND RD SYRACUSE NY 13209	03/31/2021	03/31/2026
DOL	DOL		KIMBERLY F. BAKER	7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL		KMA GROUP II, INC.	29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028
DOL	DOL	*****1833	KMA GROUP INC.	29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028
DOL	DOL		KMA INSULATION, INC.	29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028
DOL	DOL		KRIN HEINEMANN	2345 ROUTE 52, SUITE 2N HOPEWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	NYC		KULWANT S. DEOL	9-11 40TH AVENUE LONG ISLAND CITY NY 11101	09/26/2023	09/26/2028
DOL	DA	*****8816	LAKE CONSTRUCTION AND DEVELOPMENT CORPORATION	150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL		LEROY E. NELSON JR	531 THIRD ST ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		LEROY E. NELSON JR	531 THIRD ST ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		LEROY E. NELSON JR	531 THIRD ST ALBANY NY 12206	11/07/2023	11/07/2028
DOL	AG	*****3291	LINTECH ELECTRIC, INC.	3006 TILDEN AVE BROOKLYN NY 11226	02/16/2022	02/16/2027
DOL	DOL		LOUIS A. CALICCHIA	1223 PARK ST. PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	NYC		LUBOMIR PETER SVOBODA	27 HOUSMAN AVE STATEN ISLAND NY 10303	12/26/2019	12/26/2024
DOL	NYC		M & L STEEL & ORNAMENTAL IRON CORP.	27 HOUSMAN AVE STATEN ISLAND NY 10303	12/26/2019	12/26/2024
DOL	DOL	*****2196	MAINSTREAM SPECIALTIES, INC.	11 OLD TOWN RD SELKIRK NY 12158	02/02/2021	02/02/2026
DOL	DA		MANUEL P TOBIO	150 KINGS STREET BROOKLYN NY 14444	08/19/1998	08/19/2998
DOL	DA		MANUEL TOBIO	150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL		MAQSOOD AHMAD	618 OCEAN PKWY BROOKLYN NY 11230	09/17/2020	09/17/2025
DOL	NYC		MARIA NUBILE	84-22 GRAND AVENUE ELMHURST NY 11373	03/10/2020	03/10/2025
DOL	NYC	*****9926	MILLENNIUM FIRE PROTECTION, LLC	325 W. 38TH STREET SUITE 204NEW YORK NY 10018	11/14/2019	11/14/2024
DOL	NYC	*****0627	MILLENNIUM FIRE SERVICES, LLC	14 NEW DROP LNE 2ND FLOORSTATEN ISLAND NY 10306	11/14/2019	11/14/2024
DOL	DOL	*****1320	MJC MASON CONTRACTING, INC.	42 FOWLER AVENUE CORTLAND MANOR NY 10567	10/25/2022	10/25/2027
DOL	DOL	*****1320	MJC MASON CONTRACTING, INC.	42 FOWLER AVENUE CORTLAND MANOR NY 10567	01/24/2023	01/24/2028
DOL	NYC		MUHAMMED A. HASHEM	524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	NYC		NAMOW, INC.	84-22 GRAND AVENUE ELMHURST NY 11373	03/10/2020	03/10/2025
DOL	DOL	*****7790	NATIONAL BUILDING & RESTORATION CORP	1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028
DOL	DOL	*****1797	NATIONAL CONSTRUCTION SERVICES, INC	1010 TILDEN AVE UTICA NY 13501	07/24/2023	07/24/2028

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DOL	NYC		NAVIT SINGH		402 JERICHO TURNPIKE NEW HYDE PARK NY 11040	08/10/2022	08/10/2027
DOL	DOL		NELCO CONTRACTING, LLC		1024 BROADWAY ALBANY NY 12204	11/07/2023	11/07/2028
DOL	DA		NICHOLAS T. ANALITIS		505 MANHATTAN AVE WEST BABYLON NY 11704	10/05/2023	10/05/2028
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL	*****7429	NICOLAE I. BARBIR	BESTUCCO CONSTRUCTI ON, INC.	444 SCHANTZ ROAD ALLENTOWN PA 18104	09/17/2020	09/17/2025
DOL	NYC	*****5643	NYC LINE CONTRACTORS, INC.		402 JERICHO TURNPIKE NEW HYDE PARK NY 11040	08/10/2022	08/10/2027
DOL	DOL		PATRICK PENNACCHIO		2345 RT. 52 SUITE 2NHOPEWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	DOL		PATRICK PENNACCHIO		2345 RT. 52 SUITE 2NHOPEWELL JUNCTION NY 12533	12/18/2023	12/18/2028
DOL	DOL		PAULINE CHAHALES		935 S LAKE BLVD MAHOPAC NY 10541	03/02/2021	03/02/2026
DOL	DOL		PETER STEVENS		11 OLD TOWN ROAD SELKIRK NY 12158	02/02/2021	02/02/2026
DOL	DOL		PETER STEVENS		8269 21ST ST BELLEROSE NY 11426	12/22/2022	12/22/2027
DOL	DOL	*****4168	PHANTOM CONSTRUCTION CORP.		95-27 116TH STREET QUEENS NY 11419	07/12/2024	07/12/2029
DOL	DOL	*****4168	PHANTOM CONSTRUCTION CORP.		95-27 116TH STREET QUEENS NY 11419	05/28/2024	05/28/2029
DOL	DOL	*****0466	PRECISION BUILT FENCES, INC.		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
DOL	NYC		RASHEL CONSTRUCTION CORP		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	DOL	*****1068	RATH MECHANICAL CONTRACTORS, INC.		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL	*****2633	RAW POWER ELECTRIC CORP.		3 PARK CIRCLE MIDDLETOWN NY 10940	07/11/2022	07/11/2027
DOL	DA	*****7559	REGAL CONTRACTING INC.		24 WOODBINE AVE NORTHPORT NY 11768	10/01/2020	10/01/2025
DOL	DOL		RICHARD REGGIO		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
DOL	DOL		ROBBYE BISSESAR		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	01/11/2003	01/11/3003
DOL	DOL		ROMEO WARREN		161 ROBYN RD MONROE NY 10950	07/11/2022	07/11/2027
DOL	DOL		RONALD MESSEN		14B COMMERCIAL AVE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL	*****7172	RZ & AL INC.		198 RIDGE AVENUE VALLEY STREAM NY 11581	06/06/2022	06/06/2027
DOL	DOL		SAL FRESINA MASONRY CONTRACTORS, INC.		1935 TEALL AVENUE SYRACUSE NY 13206	07/16/2021	07/16/2026
DOL	DOL		SAL MASONRY CONTRACTORS, INC.		(SEE COMMENTS) SYRACUSE NY 13202	07/16/2021	07/16/2026
DOL	DOL	*****9874	SALFREE ENTERPRISES INC		P.O BOX 14 2821 GARDNER RD POMPEI NY 13138	07/16/2021	07/16/2026
DOL	DOL		SALVATORE A FRESINA A/K/A SAM FRESINA		107 FACTORY AVE P.O BOX 11070 SYRACUSE NY 13218	07/16/2021	07/16/2026
DOL	DOL		SAM FRESINA		107 FACTORY AVE P.O BOX 11070 SYRACUSE NY 13218	07/16/2021	07/16/2026
DOL	NYC	*****0349	SAM WATERPROOFING INC		168-42 88TH AVENUE APT.1 AJAMAICA NY 11432	11/20/2019	11/20/2024
DOL	DA	*****0476	SAMCO ELECTRIC CORP.		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	NYC	*****1130	SCANA CONSTRUCTION CORP.		863 WASHINGTON STREET FRANKLIN SQUARE NY 11010	03/10/2020	03/10/2025

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DOL	DOL	*****2045	SCOTT DUFFIE	DUFFIE'S ELECTRIC, INC.	P.O BOX 111 CORNWALL NY 12518	03/03/2020	03/03/2025
DOL	DOL		SCOTT DUFFIE		P.O BOX 111 CORNWALL NY 12518	03/03/2020	03/03/2025
DOL	DA		SILVANO TRAVALJA		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	DOL	*****0440	SOLAR GUYS INC.		8970 MIKE GARCIA DR MANASSAS VA 20109	07/16/2021	07/16/2026
DOL	NYC		SOMATIE RAMSUNAHAI		115-46 132ND ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	DOL	*****2221	SOUTH BUFFALO ELECTRIC, INC.		1250 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	NYC	*****3661	SPANIER BUILDING MAINTENANCE CORP		200 OAK DRIVE SYOSSET NY 11791	03/14/2022	03/14/2027
DOL	DOL		STANADOS KALOGELAS		485 RAFT AVENUE HOLBROOK NY 11741	10/19/2021	10/19/2026
DOL	DOL	*****3496	STAR INTERNATIONAL INC		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	08/11/2003	08/11/3003
DOL	DOL	*****6844	STEAM PLANT AND CHX SYSTEMS INC.		14B COMMERCIAL AVENUE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL	*****9528	STEEL-IT, LLC.		17613 SANTE FE LINE ROAD WAYNESFIELD OH 45896	07/16/2021	07/16/2026
DOL	DOL	*****3800	SUBURBAN RESTORATION CO. INC.		5-10 BANTA PLACE FAIR LAWN PLACE NJ 07410	03/29/2021	03/29/2026
DOL	DOL	*****9150	SURGE INC.		8269 21ST STREET BELLEROSE NY 11426	12/22/2022	12/22/2027
DOL	DOL		SYED RAZA		198 RIDGE AVENUE NY 11581	06/06/2022	06/06/2027
DOL	DOL		TARLOK SINGH		95-27 116TH STREET QUEENS NY 11419	05/28/2024	05/28/2029
DOL	DOL		TARLOK SINGH		95-27 116TH STREET QUEENS NY 11419	07/12/2024	07/12/2029
DOL	DOL		TERRY THOMPSON		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025
DOL	DOL	*****9733	TERSAL CONSTRUCTION SERVICES INC		107 FACTORY AVE P.O BOX 11070SYRACUSE NY 13208	07/16/2021	07/16/2026
DOL	DOL		TERSAL CONTRACTORS, INC.		221 GARDNER RD P.O BOX 14POMPEI NY 13138	07/16/2021	07/16/2026
DOL	DOL		TERSAL DEVELOPMENT CORP.		1935 TEALL AVENUE SYRACUSE NY 13206	07/16/2021	07/16/2026
DOL	DOL	*****5766	THE COKER CORPORATION	COKER CORPORATION	2610 SOUTH SALINA ST SUITE 14SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		TIMOTHY PERCY		29807 ANDREWS ROAD BLACK RIVER NY 13612	10/17/2023	10/17/2028
DOL	DA	*****1050	TRI STATE CONSTRUCTION OF NY CORP.		50-39 175TH PLACE FRESH MEADOWS NY 11365	03/28/2022	03/28/2027
DOL	DA	*****4106	TRIPLE H CONCRETE CORP		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	*****8210	UPSTATE CONCRETE & MASONRY CONTRACTING CO INC		449 WEST MOMBASHA ROAD MONROE NY 10950	06/06/2022	06/06/2027
DOL	DOL	*****6418	VALHALLA CONSTRUCTION, LLC.		796 PHEPS ROAD FRANKLIN LAKES NJ 07417	12/01/2020	12/01/2025
DOL	NYC	*****2426	VICKRAM MANGRU	VICK CONSTRUCTION	21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	NYC		VICKRAM MANGRU		21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	DOL		VIKTORIA RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL	*****8266	WILLIAM CHRIS MCCLENDON	MCCLENDON ASPHALT PAVING	1646 FALLS STREET NIAGARA FALLS NY 14303	05/01/2023	05/01/2028
DOL	DOL		WILLIAM CHRIS MCCLENDON		1646 FALLS STREET NIAGARA FALLS NY 14303	05/01/2023	05/01/2028
DOL	DOL		WILLIAM G. PROERFRIEDT		85 SPRUCEWOOD ROAD WEST BABYLON NY 11704	01/19/2021	01/19/2026
DOL	DOL	*****5924	WILLIAM G. PROPHY, LLC	WGP CONTRACTING, INC.	54 PENTAQUIT AVE BAYSHORE NY 11706	01/19/2021	01/19/2026
DOL	DOL		WILLIAM SCRIVENS		4192 SIR ANDREW CIRCLE DOYELSTOWN PA 18902	07/18/2024	07/18/2029

NYSDOL Bureau of Public Work Debarment List 09/20/2024

Article 8

DOL	DOL		XENOFON EFTHIMIADIS		29-10 38TH AVENUE LONG ISLAND CITY NY 11101	10/11/2023	10/11/2028
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LIMITED HAZARDOUS MATERIALS SURVEY AND ENVIRONMENTAL SITE REVIEW

**BROOME DDSO PARKING LOT RECONSTRUCTION
BINGHAMTON, NEW YORK
DASNY PROJECT No. 354360**



WBE certified company

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ATL Report No. ET5333CE-01-08-23

August 2, 2023

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1.0 INTRODUCTION

1.1 Purpose

Atlantic Testing Laboratories, Limited (ATL) was retained by C&S Companies, to perform a limited hazardous materials survey and environmental site review for designated areas that may be impacted by a parking lot reconstruction project situated at the Broome DDSO, located in Binghamton, Broome County, New York. The limited survey was performed on July 19, 2023. The purpose of the limited hazardous materials survey was to identify asbestos-containing materials (ACM), lead-containing materials, polychlorinated biphenyls (PCB)-containing caulk/sealant and glazing, and mold, that may be present on exposed surfaces within the subject areas and may have a significant impact on planned parking lot reconstruction. The project also included the inventory/identification of other miscellaneous suspect hazardous materials-containing items commonly encountered in buildings, and document review for historical records and environmental database information to identify past activities or conditions at the site and surrounding areas that may represent an environmental concern to the project site. The limited hazardous materials survey procedures and report format that follow are in general compliance with applicable local, state, and federal rules and regulations.

1.2 Project Team and Certifications

Members of the ATL project team included Jordan L. Stachowiak, Project Scientist; and Dylan M. Putnam, Environmental Services Technician. Certifications of ATL's field survey team members and a copy of applicable company licenses maintained by ATL are included in Appendix A.

2.0 SCOPE OF WORK

2.1 Project Description

The project site is limited to a parking lot area, maintenance pavement area, and a mechanical room in Building 5 (5C32) of the Broome DDSO, located at 249 Glenwood Road, Binghamton, Broome County, New York.

The intent of the limited hazardous materials survey was to identify suspect ACM, PCB-containing caulk/sealant and glazing, lead-containing materials, and mold that are located within referenced project areas and may be impacted during the proposed parking lot reconstruction. Other miscellaneous suspect hazardous material-containing items were also identified, as described herein, and document review of historical records.

The intent of the environmental site review was to evaluate the subject site for potential environmental concerns through a review of reasonably ascertainable historical records and publicly available environmental database records.

The limited hazardous materials survey and environmental site review were conducted for the subject areas, as directed by Philip Mauro, representing DASNY. The subject area was occupied and operational at the time of the sampling event.

2.2 Inaccessible Areas

The extent of inaccessible areas is dependent upon the building type, construction materials, history of renovations and repairs, and project scope. Concealed materials may exist in areas that are not readily exposed to view. Although the limited hazardous materials survey was performed to identify ACM, lead-containing materials, PCB-containing caulk/sealant, mold, other

miscellaneous potential hazardous material-containing items within the subject areas, potential hazardous material-containing items may have escaped detection that could be encountered during future building demolition and/or renovation activities. Wall, ceiling, floor, roofing, and/or other component systems may contain concealed suspect hazardous material-containing items. If any suspect hazardous material-containing items are encountered during demolition and/or renovation activities, the activities disturbing the suspect materials, must stop and the material must be sampled and laboratory analyzed or otherwise managed in accordance with applicable regulations.

2.3 Document Review

Documents that were provided to ATL for review during this assessment included the following:

- Broome DDSO Parking Lot Review drawing no. A-1 dated January 2023.
- C&S Engineering, Inc. Broome DDSO Access-Parking Lots drawing no E-104.

2.4 Limitations

This report has been prepared in accordance with the scope of work outlined in ATL's contract (ATL No. ET5998-093-02-23), dated February 14, 2023, and authorized via C&S Companies sub-consultant services agreement, dated June 30, 2023, and should not be used as abatement specifications or design documents. The findings, conclusions, and recommendations presented in this report are based on the field observations made by representatives of ATL and the information provided by representatives of DASNY and C&S Companies.

Quantities and locations of sampled materials are approximate, and should be verified by the abatement contractor(s) prior to providing actual cost quotations and/or initiating abatement activities. Variations in reported quantities and locations for sampled materials, in addition to the discovery of suspect materials not identified in this report, is possible due to the presence of inaccessible areas, as described in Section 2.2 of this report.

The purpose of an environmental site review is to reduce, but not eliminate, uncertainty regarding the existence of environmental concerns in connection with a property, within reasonable time and cost. As such, the findings and conclusions of this report are not scientific certainties, but rather, are probabilities based on professional judgement concerning the significance of the data gathered during the course of the environmental site review. ATL is not able to represent that the subject property or adjoining properties contain no hazardous waste, petroleum products, or other latent condition beyond those reported or observed by ATL during the environmental site review. The possibility always exists for contaminants to migrate thorough the surface water, groundwater, and/or air. The ability to completely and accurately address the environmental risk associated with transport in these media was beyond the scope of this assessment.

The findings and opinions are relevant to the dates of our site work and should not be relied on to represent conditions at substantially later dates.

3.0 ASBESTOS

3.1 Methodology

A visual examination of mechanical room 5C32, parking lot 1, and maintenance area pavement of the referenced facility was conducted by an Asbestos Building Inspector to identify suspect ACM. Functional spaces were identified to assist while locating suspect ACM. A functional

space is defined as a spatially distinct area within a building that contains identifiable populations of building occupants. A functional space may include a room, a group of rooms, or other defined area, and several functional spaces may comprise a single homogeneous sampling area. A homogeneous sampling area is defined as an area that is uniform by color, texture, construction/application, and general appearance. Each identified functional space was visually examined to determine the locations of suspect ACM. These materials were then delineated into homogeneous sampling areas.

Samples of each accessible homogeneous area were collected and placed in clean, labeled containers. The appropriate custody documentation was completed and the suspect ACM samples were submitted to AmeriSci New York (AmeriSci), located in New York, New York. The samples were laboratory analyzed by polarized light microscopy (PLM) and transmission electron microscopy (TEM) methodologies, as applicable. AmeriSci is a New York State Department of Health (NYSDOH) certified laboratory for PLM and TEM analysis under Environmental Laboratory Approval Program (ELAP) No. 11480. AmeriSci is also accredited by the National Institute of Standards and Technology (NIST), under the National Voluntary Laboratory Accreditation Program (NVLAP).

3.2 Regulatory Compliance

In New York State, there are multiple regulatory agencies that have jurisdiction over ACM in buildings. Asbestos survey requirements are primarily regulated or specified by the New York State Department of Labor (NYSDOL), the New York State Department of Health (NYSDOH), the Occupational Safety and Health Administration (OSHA), and the United States Environmental Protection Agency (EPA).

The NYSDOL established Part 56 of The Official Compilation of Codes, Rules, and Regulations (cited as 12 NYCRR, Part 56) to address the proper identification, handling, removal, and disposal of ACM in buildings. Asbestos survey requirements are specified in Subpart 56-5.1 "Asbestos Survey Requirements for Building/Structure Demolition, Renovation, Remodeling and Repair." The NYSDOL also works in conjunction with the NYSDOH to establish and maintain asbestos safety training program requirements, and enforce personnel certifications and licensing protocol for asbestos contractors.

The OSHA defines requirements for asbestos surveys and identification of ACM and presumed asbestos-containing materials (PACM) in 29 CFR 1926.1101 (k) "Communication of Hazards." Under this regulation, OSHA makes reference to conducting inspections according to 1926.1101 (k)(5)(ii)(B) and 1926.1101 (k)(5)(iii) or pursuant to the requirements of the Asbestos Hazard Emergency Response Act (AHERA) 40 CFR Part 763, Subpart E "Asbestos-Containing Materials in Schools." The AHERA is regulated by the EPA, and applies to primary and secondary schools only; however, the procedures mandated under AHERA are generally considered the industry standards for surveys, as these are typically the most stringent.

3.3 Summary of Findings

A total of 6 homogeneous areas of suspect ACM were identified during the visual examination, from which 14 bulk samples were collected and subsequently submitted to a NYSDOH approved laboratory for analysis. Approximate sample locations are depicted on the Sample Location Plan, contained in Appendix B. A copy of laboratory reports and sample custody documentation are contained in Appendix C. Table D-I, contained in Appendix D, provides a summary of the identified suspect ACM and associated analytical results.

The EPA, NYSDOL, and other regulatory agencies define ACM as any material containing greater than 1% of asbestos. None of the materials sampled were determined to be ACM.

Other materials that were observed, but are not considered suspect ACM, include the following;

<ul style="list-style-type: none">• Concrete	<ul style="list-style-type: none">• Nylon-Coated Electrical Wire Jacket
<ul style="list-style-type: none">• Plastic	<ul style="list-style-type: none">• Metal

4.0 LEAD-CONTAINING MATERIALS

4.1 Methodology

A visual examination of mechanical room 5C32, parking lot 1, and maintenance area pavement of the referenced facility was conducted by an Environmental Scientist to identify visible and accessible painted surfaces. The painted surfaces were categorized into homogeneous areas from which tests could be conducted. Each homogeneous area was tested using a Heuresis Pb200i XRF Analyzer. This equipment provides instantaneous measurements for lead concentration in mg/cm², and displays readings that are positive or negative indications for lead-containing materials. Calibration checks for the XRF equipment were performed in accordance with the manufacturer's recommendations.

4.2 Regulatory Compliance

Although New York State has established Title X, Part 67 of The Official Compilation of Codes, Rules, and Regulations (cited as NYCRR Title X, Part 67) for "Lead Poisoning Prevention and Control," Lead-Based Paint (LBP) inspections and risk assessments are generally subject to the requirements of federal regulations. The United States Department of Housing and Urban Development (HUD), EPA, and OSHA are the primary federal regulatory agencies responsible for the establishment and enforcement of such regulations. On a state level, the NYSDOH does require laboratories to be certified to perform lead analysis under the ELAP.

The HUD "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing" include details pertaining to sampling and analysis of suspect LBP, in addition to the identification and control of LBP hazards. The HUD guidelines pertain to federally owned or assisted housing; however, these are commonly referenced and made mandatory by other regulatory agencies. The EPA requirements for LBP activities, specified in 40 CFR Part 745, apply to targeted housing and child-occupied facilities, and are similar to HUD guideline requirements.

The OSHA Construction Standard for Lead (29 CFR 1926.62) applies to employees of an employer who may or will be exposed to occupational levels of lead. OSHA requires employees to maintain, at a minimum, awareness, respiratory protection, and hazard communication training.

4.3 Summary of Findings

A total of 6 locations were tested using the XRF spectrometer. Approximate sample locations are depicted on the Sample Location Plan, contained in Appendix B. A summary of the XRF results and calibration checks are provided in Appendix E. The XRF results provided in Table E-1 of Appendix E identify painted surfaces that contain detectable concentrations of lead, but are not considered LBP, as compared to HUD criteria. Painted surfaces that did not contain lead at

a concentration above the method detection limits are summarized in Table E-II of Appendix E. Calibration checks for the XRF spectrometer are provided in Table E-III of Appendix E.

5.0 POLYCHLORINATED BIPHENYLS

5.1 Methodology

A visual examination of mechanical room 5C32, parking lot 1, and maintenance area pavement of the referenced facility was conducted by an Environmental Scientist to identify suspect PCB-containing caulk/sealant. The identified material was classified into a homogeneous sampling area. A homogeneous sampling area is defined as an area that is uniform by color, texture, construction/application, and general appearance.

Samples of each accessible homogeneous area was collected and placed into a clean, labeled container. The appropriate custody documentation was completed, and the suspect PCB-containing sample was submitted to Alpha Analytical, located in Westborough, Massachusetts, a New York State Department of Health (NYSDOH) approved laboratory (ELAP No. 11627). The sample was laboratory analyzed for PCB, in accordance with EPA Method 8082.

5.2 Regulatory Compliance

PCB are primarily regulated by the EPA. The EPA has issued several documents and enforces federal mandated laws and regulations governing the usage, management, and disposal of PCB-containing materials. State and local regulatory agencies have also enacted laws and regulations concerning PCB materials, many of which are consistent with the regulations set forth by the EPA. In accordance with the regulations and guidelines presented in 40 CFR Parts 750 and 761 "Disposal of Polychlorinated Biphenyls; Final Rule," PCB wastes are generally regulated for disposal under the Toxic Substances Control Act (TSCA) if the concentrations are 50 ppm or greater. Per New York State Department of Environmental Conservation (NYSDEC) regulations, material containing PCB at 50 ppm or greater is regulated hazardous waste.

5.3 Summary of Findings

One homogeneous suspect PCB-containing caulk material was identified during the visual examination, from which a bulk sample was collected and subsequently submitted to a NYSDOH approved laboratory for analysis. The approximate sample location is depicted on the Sample Location Plan, contained in Appendix B. A copy of laboratory reports and associated sample custody documentation are contained in Appendix C. Table D-II, of Appendix D, provides a summary of the identified suspect PCB-containing caulk and associated analytical result.

PCB-containing caulk is regulated under the TSCA as an "unauthorized use," and is considered a regulated hazardous material at concentrations equal to or greater than 50 ppm. The sample collected did not contain total PCB at a concentration of 50 ppm or greater.

6.0 MOLD

6.1 Methodology

A visual assessment of mechanical room 5C32 at the Broome County DDSO was conducted to identify areas of mold contamination on exposed surfaces, pursuant to the scope of work described in the project contract.

6.2 General Information about Mold

Molds are simple, microscopic organisms that can be found almost anywhere. Molds can grow on virtually any organic substance, provided there is moisture and oxygen present. There are molds that have the capability to grow on wood, paper, carpet, food, insulation, and numerous other products and building materials. When excessive moisture accumulates in buildings or on building materials, mold growth will often occur, particularly if the moisture problem remains undiscovered or unresolved. It is impossible to eliminate all molds and mold spores in the indoor environment; however, controlling the amount of moisture within the building can reduce the potential for mold propagation.

The reproduction of molds involves the creation of microscopic spores that usually cannot be seen without magnification. Due to the size of mold spores, these can easily become airborne. Airborne mold spores can be either viable or non-viable. Although the non-viable mold spores do not have the ability to reproduce, these spores can be as equally detrimental to an individual's health as the viable mold spores. Viable airborne mold spores are of concern, because of the ability to reproduce, in addition to the potential health hazards that may be created. When viable airborne mold spores come into contact with a damp surface, the spores typically begin to reproduce and form a conglomeration of mold spores. The conglomeration will digest the material upon which it is growing, and will continue to reproduce at a rate that varies depending on the type of mold, quantity of moisture present, the amount of food source available, and other environmental factors, including the temperature and humidity levels of the surroundings. Molds gradually damage the objects grown on, consequently posing a threat to the structural integrity of a building over time.

There are numerous types of molds that exist in the environment. Although certain types of mold have been shown to severely affect people, it is important to note that all molds have the potential to cause health effects. Molds can produce allergens that may trigger allergic reactions or asthma attacks, and certain types of molds are known to produce potent toxins and/or irritants. People that may be affected more severely include infants and children, elderly individuals, pregnant women, individuals with respiratory conditions or allergies and asthma, and persons with weakened immune systems. Potential health concerns are an important reason to prevent mold growth and to remediate any existing indoor mold growth.

6.3 Summary of Findings

Evidence of obvious significant visible mold contamination was not observed on readily exposed surfaces of mechanical room 5C32 at the time of the survey. It is noted that the visual assessment was limited to readily accessible exposed surfaces, and mold-impacted materials may be present in areas hidden from view.

7.0 MISCELLANEOUS ITEMS

7.1 Methodology

In addition to suspect ACM, lead-containing materials, PCB-containing caulk/sealants, and mold, the limited hazardous materials survey included an inventory/identification of other miscellaneous potential hazardous materials-containing items observed within mechanical room 5C32, parking lot 1, and maintenance area pavement, at the Broome County DDSO. This inventory/identification was performed to identify suspect hazardous materials-containing items commonly encountered within buildings and surrounding exterior areas that may have a significant impact on parking lot reconstruction. As such, the inventory/identification of

miscellaneous potential hazardous materials-containing items included observations of exposed and readily accessible items and is not intended to represent an exhaustive assessment.

A visual reconnaissance of the subject areas and building components that were readily observable was conducted by the field survey team. Subsequent to identifying suspect hazardous materials or items suspected of containing hazardous materials, labels and material identification data was accessed, to the extent that was reasonably and safely possible, in an attempt to verify the presence or absence of hazardous materials.

7.2 Suspect Hazardous Materials-Containing Items

7.2.1 Light Ballasts

Fluorescent light ballasts were observed within the subject areas. Prior to a ban on the manufacture of PCB by the EPA in 1978, fluorescent light ballasts from this time period commonly contained PCB. The fluorescent light ballasts in the subject areas were assessed by reviewing the labels on selected ballasts for different types of light fixtures. The different types of fluorescent light fixtures in the subject area were noted, and a representative quantity of ballasts associated with each different type of accessible light fixture was observed for labels indicating the presence or absence of PCB. Table D-III, contained in Appendix D, provides a summary of the identified fluorescent light ballasts within the designated areas and information from accessible labels that were observed.

7.2.2 Fluorescent and LED Lamps

Fluorescent lamps and LED lamps associated with light fixtures are located within the subject areas. Mercury is a constituent of fluorescent lamps. LED lamps may contain various metals. Table D-III, contained in Appendix D, provides a summary of the identified fluorescent and LED lamps within the designated areas of the subject areas.

7.2.3 Exit Signs

Certain types of self-luminous exit signs are manufactured with Tritium, a radioactive isotope of hydrogen. The exit sign observed within the subject area appeared to be electrically- powered and did not appear to be a Tritium-containing type/model. The unit may include batteries, which are described in Section 7.2.6.

7.2.4 Smoke Detectors

Smoke detectors were observed within the subject areas. Ionizing smoke detectors may contain Americium 241 or Radium 226. The smoke detectors observed during the survey did not have external labels indicating the presence or absence of radioactive materials. Upon deactivation, the smoke detector should be further investigated to determine if the unit contain radioactive materials. The observed smoke detectors appeared to be in fair condition with no obvious evidence of damage or deterioration. Table D-III, contained in Appendix D, provides a summary of the identified smoke detector within the designated areas of the subject building.

7.2.5 Freezers

Freezers are present in the subject area. These components may contain a refrigerant considered to be a chlorofluorocarbon (CFC) or hydrochlorofluorocarbon (HCFC). Table D-III, contained in Appendix D, includes a summary of the observed freezers.

7.2.6 Batteries

Batteries may be present for different systems at the subject area (e.g., emergency lighting, fire alarms, exit signs, etc.). Panels and fixtures were not directly accessed at the time of the assessment to determine the presence or absence of batteries, as it was not specified whether these would be directly impacted by the project.

7.2.7 Fire Extinguishers

Fire extinguishers were observed within the subject building. The contents and compressed nature of the contents render fire extinguishers hazardous materials. Table D-III, contained in Appendix D, provides a summary of the identified fire extinguishers within the designated areas of the subject building.

7.2.8 Miscellaneous Equipment

Miscellaneous equipment that requires the use of petroleum-based products or other hazardous materials, such as lubricants, oil, hydraulic fluid, coolants, heavy metals, and/or degreasers, was observed in the subject areas. The observed equipment appeared to be in fair to good condition with no obvious evidence of significant leaks or deterioration. Table D-III, contained in Appendix D, includes a general summary of the miscellaneous stored equipment within the designated area.

8.0 ENVIRONMENTAL SITE REVIEW

8.1 Methodology

The subject site and immediate surroundings were visually observed for evidence of suspect surface contamination, and the general area development was assessed for sites that may have an increased potential for surface/subsurface spills or environmental impacts that may affect the subject site. Additionally, ATL reviewed reasonably ascertainable historical records and publicly available environmental database information from sources deemed to be pertinent for a cursory environmental assessment.

8.2 Historical Records Review

Historical records sources reviewed for this assessment included aerial photographs, city directories, Sanborn fire insurance maps, and topographic maps. These record sources were searched by Environmental Data Resources (EDR) of Shelton, Connecticut. A copy of the historical records review information provided by EDR is included in Appendix G.

Aerial photographs dated 1944, 1948, 1957, 1960, 1967, 1974, 1982, 1984, 1994, 1995, 1999, 2001, 2008, 2011, 2015, and 2019, included in a report prepared by (EDR) on July 18, 2023, were reviewed for information pertaining to the historic usage of the subject property. The aerial photographs dated 1974 and later indicate that the subject property was developed with the parking lots and commercial buildings similar to current conditions, whereas the aerial photographs dated 1967 and earlier indicate the subject property was agricultural land. The 1982 and 1984 aerial photographs show the northeast corner of the parking lot as containing a different surface other than asphalt, possibly concrete pad or a small outbuilding. Surrounding property appeared to be predominantly commercially and residentially developed 1974 and

later, and agriculture from 1967 and earlier. Due to the scale of the aerial photographs, specific property usage could not be determined.

City directories dated 1930, 1940, 1948, 1958, 1961, 1965, 1970, 1992, 1995, 2000, 2005, 2010, 2014, 2017, and 2020 were included in information provided by EDR. The city directory for 1995, 2000, 2005, 2010, and 2020 showed the current subject property listed. The 1965, 1992, 2014, and 2017 directory information did not specifically list the subject property address. Other property addresses listings generally included different businesses and individuals.

Coverage of Sanborn fire insurance maps did not include the subject property.

Historical topographic maps dated 2019, 2016, 2013, 1976, 1968, 1961, 1947, 1942, 1934, 1935, and 1904 were provided by EDR and reviewed by ATL. The topography of the area surrounding the subject property appears similar for each of the reviewed maps. No notable site features were shown for the area of the subject property.

It is noted that the aforementioned history of the subject property is a partial record, selected to establish an adequate representation of land use during this a time period covered by the historical records provided.

8.3 Standard Environmental Records Review

The following ASTM-recommended state and federal records were researched to determine whether the subject property is identified on, or located within, the specified distances from sites that are identified on these listings.

LISTING	SEARCH DISTANCE
National Priority List (Federal)	1.0 Mile
Resource Conservation and Recovery Act Listings (RCRA) U.S. EPA Corrective Action Sites (CORRACTS) Facilities List (Federal)	1.0 Mile
RCRA Non-CORRACTS Transportation, Storage, & Disposal (TSD) Facilities List (Federal)	0.5 Mile
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Listing (Federal)	0.5 Mile
CERCLIS No Further Remedial Action Planned (NFRAP) (Federal)	Property and Adjoining
RCRA Large and Small Quantity Generators (LQG & SQG) List (Federal)	Property and Adjoining
Emergency Response Notification System (ERNS) (Federal)	Property
NYSDEC Inactive Hazardous Waste Site (SHWS) Listing	1.0 Mile
NYSDEC Solid Waste Management and Disposal Site (HSWDS) Listing	0.5 Mile
NYSDEC Petroleum Bulk Storage Registry (UST)	Property and Adjoining
NYSDEC Petroleum Spill Site Listing (LTANKS)	0.5 Mile
Available Tribal Databases	Property
Available State Engineering Controls and Institutional Controls (EC/IC)	Property

EDR was retained by ATL to conduct a search of the aforementioned databases. A copy of the information obtained from EDR is included in Appendix H. Broome County DDSO was listed in some of the aforementioned environmental databases searched by EDR, including NY LTANKS, NY Spills, NY SPDES, NY UST, and NY AST. EDR also identified the Broome County DDSO on supplemental lists, including NY COOLING TOWERS, US AIRS, FINDS, ECHO, and ICIS. LTANKS listing is a failed sump test failure, NY UST listing identifies some underground storage tanks on-site for #2 fuel oil, while the other listings are generally associated with tracking and disposal of generated hazardous waste or regulated materials. Based on

observations of the subject areas, it appears or does not appear that the tank systems are within the limits of or would impact the project site.

Several sites were listed within the ASTM-specified search radii for the federal and state databases identified in the table above or for supplemental lists reviewed by EDR. Included in these listed sites are RCRA-VSQQ, NY SHWS, 4 NY SWF/LF, 8 NY LTANKS, NU UST, NY ENG CONTROLS, NY INST CONTROL, NY BROWNFIELDS, 2 NY Spills, NY PFAS, NY MAINIFEST, NJ MANIFESTED, and Hist Auto, ATL reviewed the information available for the listed facilities. Specifically, ATL assessed the respective physical and topographic locations of the listed facilities with respect to the subject site, the reported contaminants of concern, and the regulatory status of the referenced facilities. The listed designations for nearby facilities reviewed for this assessment are not considered to represent environmental risk to the project area.

9.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are prepared from ATL's understanding that the boiler room may be subject to a renovation project. Should the management of the building areas change, it is recommended that the findings be revisited to reflect appropriate operations and management practices for hazardous materials containing items.

9.1 General

1. Concealed regulated hazardous materials may exist at the site that could be encountered during future building renovation activities. Wall, ceiling, floor, roofing, and/or other component systems may contain concealed suspect hazardous materials. If any suspect hazardous materials or hazardous materials-containing items are encountered during renovation activities, the activities disturbing the suspect material must stop and the material must be sampled and laboratory analyzed or otherwise managed pursuant to in accordance with applicable regulations.

9.2 Asbestos-Containing Materials

1. None of the materials sampled were determined to be ACM.
2. Subpart 56-5(g) of 12 NYCRR Part 56 specifies requirements for transmittal of asbestos survey information by the owner or owner's agent. One copy of the asbestos survey report shall be sent to the local government entity charged with issuing a permit for such demolition, renovation, remodeling, or repair work under applicable State or local laws. If controlled demolition or pre-demolition activities will be performed, one copy of the asbestos survey report shall be submitted to the appropriate Asbestos Control Bureau district office. One copy of the asbestos survey report must be kept on the construction site throughout the duration of the asbestos project and any associated demolition, renovation, remodeling, or repair project

9.3 Lead-Containing Materials

1. Table E-I of Appendix E lists materials that are not considered LBP per HUD criteria, but contain detectable concentrations of lead and are regulated under OSHA.

2. Identified lead-containing materials with a detectable concentration of lead should be managed in accordance with applicable EPA and OSHA requirements prior to or during demolition, renovation, remodeling, or repair work.
3. Demolition/renovation contractors are required to conduct exposure monitoring or use historical objective data to ensure that employee exposures do not exceed the action level of $30 \mu\text{g}/\text{m}^3$.

9.4 PCB-Containing Materials

1. The caulk material sampled did not contain PCB concentrations equal to or exceeding 50 ppm, and is therefore not considered hazardous materials/hazardous waste.

9.5 Mold

1. None of the surfaces observed within the subject areas contained obvious evidence of visible mold contamination.

9.6 Other Miscellaneous Items

It is recommended that the hazardous materials or suspect hazardous materials-containing items summarized in Section 7.2 of this report be managed and/or disposed of in accordance with local, state, and federal requirements. With the exception of banned materials or items containing banned materials, the most effective management option for materials and items that are in good condition and not susceptible to a release of hazardous substances to the environment is reuse. If reuse is not applicable, alternative management, recycling, or disposal options would need to be selected to ensure compliance with applicable local, state, and federal requirements.

9.6.1 Light Ballasts

1. It is recommended that light ballasts with suspect DEHP and/or lead solder be managed and/or disposed of in accordance with local, state, and federal requirements.

9.6.2 Fluorescent and LED Lamps

1. Fluorescent and LED lamps should be recycled in accordance with local, state, and federal requirements. A list of lamp recyclers can be obtained from the New York State Department of Environmental Conservation (NYSDEC).

9.6.3 Exit Sign

1. Based on observations during the hazardous materials survey, the exit signs do not appear to be a Tritium-containing type/model. Verification should be conducted during removal. If the exit sign is determined to contain Tritium and scheduled for disposal must be transferred to a specific licensee in accordance with 10 CFR Part 31.5.

9.6.4 Smoke Detectors

1. The smoke detection system was inaccessible at the time of the site reconnaissance. It is recommended that further investigation be performed to assess the type of any discontinued use smoke detector to determine if they contain radioactive materials. If

radioactive materials are discovered, the equipment should be removed and properly disposed of in accordance with federal, state, and local regulations.

9.6.5 Freezers

1. Discontinued use freezers should be assessed for inclusion of refrigerants and the type. Equipment with refrigerants often need to be disposed of in a specific manner and/or processed via refrigerant recovery and recycling.

9.6.6 Batteries

1. Any batteries associated with discontinued use building systems should be recycled by transporting to a distributor or an approved battery recycling facility.

9.6.7 Fire Extinguishers

1. Fire extinguishers should be evaluated to determine if salvage or reuse is applicable. A local fire department can be contacted to determine whether they would accept these items for reuse. If salvage and reuse options are not available, the fire extinguishers should be discharged prior to disposal. The discharged contents may then need to be treated as hazardous waste. The empty shell can typically be disposed of or recycled as non-regulated waste; however, a hole should be drilled in each canister prior to disposal to prevent it from becoming re-pressurized.

9.6.8 Miscellaneous Equipment

1. Discontinued use equipment should be thoroughly examined for the inclusion of petroleum products or other potentially hazardous materials. Any items that contain these potentially hazardous substances should be removed and properly disposed. Alternatively, the suspected hazardous materials should be properly drained or removed from the equipment in accordance with federal, state, and local regulations and the equipment could then be disposed of, salvaged, or recycled.

9.7 Environmental Site Conditions

1. The review of historical records and environmental database information did not identify items considered to represent an immediate environmental concern or elevated risk for surface or subsurface contamination within the project area.

APPENDIX A
LICENSES AND CERTIFICATION

Asbestos Certificate Code Classifications

The following letter codes shown on the enclosed asbestos certificates represent the corresponding asbestos classifications:

- | | |
|------------------------------------|--------------------------------------|
| A - Asbestos Handler | F - Operations & Maintenance |
| B - Allied Trades | G - Asbestos Supervisor |
| C - Air Sampling Technician | H - Asbestos Project Monitor |
| D - Building Inspector | I - Asbestos Project Designer |
| E - Management Planner | |

WE ARE YOUR DOL



**Department
of Labor**

DIVISION OF SAFETY & HEALTH LICENSE AND CERTIFICATE UNIT, STATE OFFICE CAMPUS, BLDG. 12, ALBANY, NY 12226

ASBESTOS HANDLING LICENSE

Atlantic Testing Laboratories, Limited
P.O. Box 29, Canton, NY, 13617

License Number: 29276

License Class: RESTRICTED

Date of Issue: 10/03/2022

Expiration Date: 11/30/2023

Duly Authorized Representative: Marijean B Remington

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

A handwritten signature in black ink, appearing to read "Amy Phillips".

Amy Phillips, Director
For the Commissioner of Labor

EXCELSIOR

United States Environmental Protection Agency

This is to certify that

Atlantic Testing Laboratories, Limited

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires April 21, 2025

LBP-8962-3

Certification #

February 11, 2022

Issued On



Michelle Price, Chief

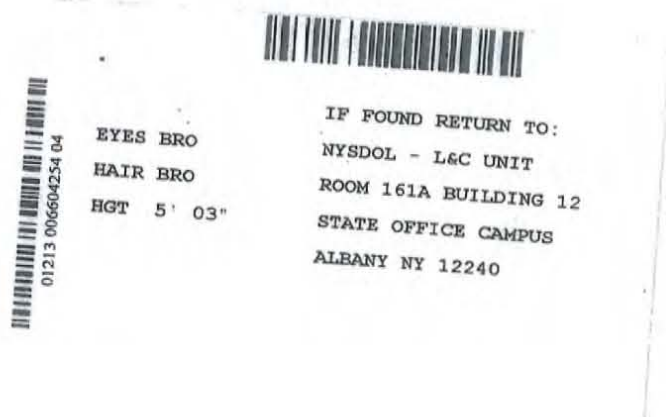
Lead, Heavy Metals, and Inorganics Branch



ATLANTIC TESTING LABORATORIES

WBE certified company

Syracuse
6085 Court Street Road
Syracuse, NY 13206
315-699-5281 (T)
atlantictesting.com





ATLANTIC TESTING LABORATORIES

WBE certified company

Syracuse
6085 Court Street Road
Syracuse, NY 13206
315-699-5281 (T)
atlantictesting.com

New York State Department of Health Certificate of Asbestos Safety Training

This form is the official record of successful completion of a New York State accredited asbestos safety training course.

Certificate No. **921006**

I - To be completed by Trainee

Name of Trainee (print) <u>Jordan Stachowiak</u>	NYS Depart. of Motor Vehicles ID (DMV ID) ¹ <u>686 547 890</u>	
Signature of Trainee <u>webinar Jordan Stachowiak</u>	Telephone Number <u>315-427-2845</u>	Date of Birth ¹ <u>6/11/93</u>
Address <u>301 Mansfield Dr. Camillus NY 13031</u>		
(Street or PO Box)	(City)	(State) (Zip Code)

II - To be completed by Training Sponsor

Provider's Name EAST Centers of NY	Telephone Number <u>585-435-1881</u>
Address <u>1555 Lyell Ave, Suite 122 Rochester, NY 14606</u>	Course Location: <u>webinar</u>
Zip Code	

Course Title: inspector Initial Refresher NYS DOH use only
 DOH Equivalency²

Training Language: English Other: _____ Exam Grade/Date: 100/1-13-23

Dates of Training: From: 1/13/23 To: 1/13/23 Expires: 1/13/24

I certify that the asbestos safety training course given on the above date complied with both 10 NYCRR Part 73 and TSCA Title II, was consistent with the curriculum and instructors approved by the New York State Department of Health, and the trainee receiving this certificate completed the training course and successfully passed the examination.

Training Director²: Kevin Hartman (Print) [Signature] (Signature)

DOH-2832 (10/03)

¹ Optional Information

² DOH Equivalency signed by NYS DOH representative only

STUDENT



EEA

ENVIRONMENTAL EDUCATION ASSOCIATES
888 4 ENV EDU *environmentaleducation.com*

This certifies that on April 25-27, 2023

Dylan Putnam
1309 Rowley Jerome Rd.
Fabius, NY 13063

Attended and Successfully Completed the U.S.E.P.A. Accredited

Lead Inspector Initial Certification

Per 40 CFR 745.225 (C) (8)

Interim Certificate Number: LII-23-042527-006

Course Examination Date: April 27, 2023

Course Completion Date: April 27, 2023

Interim Certificate Expiration Date: October 27, 2023



Andrew McLellan
President



Alisa J. Raab
Training Coordinator

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S.



DYLAN M PUTNAM
CLASS(EXPIRES)
C ATEC(07/23) D INSP(07/23)
H PM (07/23)

CERT# 21-14023
DMV# 572488805

MUST BE CARRIED ON ASBESTOS PROJECTS

11000000 001 1000000 11 0 000



01213 006452752 62

EYES BLU
HAIR BRO
HGT 6' 00"

IF FOUND RETURN TO:
NYSOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

New York State Department of Health Certificate of Asbestos Safety Training

This form is the official record of successful completion of a New York State accredited asbestos safety training course.

Certificate No. **926909**

I - To be completed by Trainee

Name of Trainee (print) <u>Dylan Putnam</u>		NYS Depart. of Motor Vehicles ID (DMV ID) ¹ <u>512 488 805</u>	
Signature of Trainee <u>[Signature]</u>		Telephone Number	Date of Birth ¹ <u>7/14/98</u>
Address <u>1309 Rowley Jerome Rd Fabius NY 13063</u>			
(Street or PO Box)	(City)	(State)	(Zip Code)

II - To be completed by Training Sponsor

Provider's Name EAST Centers of NY		Telephone Number <u>585-435-1881</u>	
Address <u>1555 Lyell Ave, Suite 122</u> <u>Rochester, NY 14606</u>		Course Location: <u>webinar</u>	
Zip Code			

Course Title: Inspector Initial Refresher DOH Equivalency² NYS DOH use only

Training Language: English Other: _____ Exam Grade/Date: 100/5-12-23

Dates of Training: From: 5/12/23 To: 5/12/23 Expires: 5/12/24

I certify that the asbestos safety training course given on the above date complied with both 10 NYCRR Part 73 and TSCA Title II, was consistent with the curriculum and instructors approved by the New York State Department of Health, and the trainee receiving this certificate completed the training course and successfully passed the examination.

Training Director²: [Signature] (Print) _____ (Signature)

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2024
Issued April 01, 2022
Revised March 30, 2023

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

*MS. KAROL H. LU
AMERICA SCIENCE TEAM NEW YORK, INC
117 EAST 30TH ST
NEW YORK, NY 10016*

NY Lab Id No: 11480

*is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:*

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual



Serial No.: 66402

Property of the New York State Department of Health. Certificates are valid only at the address shown and must be conspicuously posted by the laboratory. Continued accreditation depends on the laboratory's successful ongoing participation in the Program. Consumers may verify a laboratory's accreditation status online at <https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/>, by phone (518) 485-5570 or by email to elap@health.ny.gov.

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2024
Issued April 01, 2022
Revised March 30, 2023

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. MARCO SOARES
ALPHA ANALYTICAL
8 WALKUP DR
WESTBOROUGH, MA 01581-1019

NY Lab Id No: 11148

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2016) for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:*

Phthalate Esters

Di-n-butyl phthalate	EPA 8270D
	EPA 8270E
Di-n-octyl phthalate	EPA 8270D
	EPA 8270E

Polychlorinated Biphenyls

Aroclor 1016 (PCB-1016)	EPA 8082A
Aroclor 1016 (PCB-1016) in Oil	EPA 8082A
Aroclor 1221 (PCB-1221)	EPA 8082A
Aroclor 1221 (PCB-1221) in Oil	EPA 8082A
Aroclor 1232 (PCB-1232)	EPA 8082A
Aroclor 1232 (PCB-1232) in Oil	EPA 8082A
Aroclor 1242 (PCB-1242)	EPA 8082A
Aroclor 1242 (PCB-1242) in Oil	EPA 8082A
Aroclor 1248 (PCB-1248)	EPA 8082A
Aroclor 1248 (PCB-1248) in Oil	EPA 8082A
Aroclor 1254 (PCB-1254)	EPA 8082A
Aroclor 1254 (PCB-1254) in Oil	EPA 8082A
Aroclor 1260 (PCB-1260)	EPA 8082A
Aroclor 1260 (PCB-1260) in Oil	EPA 8082A
Aroclor 1262 (PCB-1262)	EPA 8082A
Aroclor 1262 (PCB-1262) in Oil	EPA 8082A
Aroclor 1268 (PCB-1268)	EPA 8082A
Aroclor 1268 (PCB-1268) in Oil	EPA 8082A

Polynuclear Aromatic Hydrocarbons

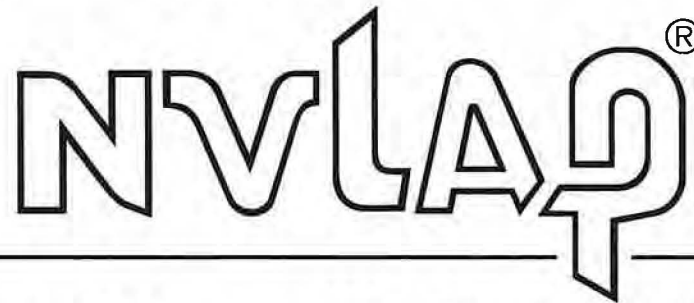
Acenaphthene	EPA 8270D
	EPA 8270E

Serial No.: 66305

Property of the New York State Department of Health. Certificates are valid only at the address shown and must be conspicuously posted by the laboratory. Continued accreditation depends on the laboratory's successful ongoing participation in the Program. Consumers may verify a laboratory's accreditation status online at <https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/>, by phone (518) 485-5570 or by email to elap@health.ny.gov.



United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200546-0

AmeriSci New York
New York, NY

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

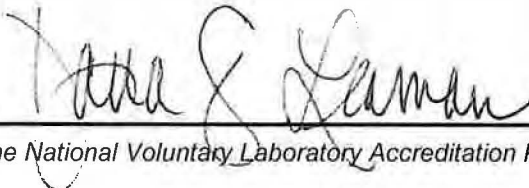
Asbestos Fiber Analysis

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2023-07-01 through 2024-06-30

Effective Dates




For the National Voluntary Laboratory Accreditation Program

APPENDIX B
SAMPLE LOCATION PLAN

Side C

LEGEND :

- ET5333AI01A Suspect Asbestos Sample ID and Approximate Location
- ET5333PI01 Suspect PCB-Containing Caulk Sample ID and Approximate Location
- ET5333LX01 Suspect Lead-Based XRF Sample ID and Approximate Location
- Side A Side Designation for XRF Sampling

ET5333LX04

ET5333LX08

ET5333LX02

ET5333AI03A

ET5333AI03B

ET5333AI01A

ET5333AI01B

ET5333AI01C

ET5333AI02A

ET5333AI02B

ET5333AI02C

ET5333AI04A

ET5333AI04B

Side B

Side D

ET5333AI05A

ET5333AI05B

ET5333PI05

ET5333LX05

ET5333LX06

ET5333AI06A

ET5333AI06B

Side A

SAMPLE LOCATION PLAN

Drawn By:

JDF

Drawing:

1 of 1

Scale:

As Noted

Project No.:

ET5333

Date :

August 2023



APPENDIX C

LABORATORY REPORTS AND CUSTODY DOCUMENTATION

**AmeriSci New York**117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

Atlantic Testing Laboratories, Limited
Attn: Jordan Stachowiak
6431 US Highway 11

Canton, NY 13617**Date Received** 07/20/23 **AmeriSci Job #** 223073310
Date Examined 07/24/23 **P.O. #**
ELAP # 11480 **Page** 1 of 3
RE: ET5333; Broome DDSO Parking Lot Construction; Binghamton,
New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
ET5333AI01A 01	223073310-01 Location: 5C32 - Row 1: Gray Base Coat Ceiling Plaster	No	NAD (by NYS ELAP 198.1) by Omar Hernandez on 07/24/23
Analyst Description: Gray, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Animal hair 2%, Non-fibrous 98%			
ET5333AI01B 01	223073310-02 Location: 5C32 - Row 1: Gray Base Coat Ceiling Plaster	No	NAD (by NYS ELAP 198.1) by Omar Hernandez on 07/24/23
Analyst Description: Gray, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Animal hair 1%, Non-fibrous 99%			
ET5333AI01C 01	223073310-03 Location: 5C32 - Row 1: Gray Base Coat Ceiling Plaster	No	NAD (by NYS ELAP 198.1) by Omar Hernandez on 07/24/23
Analyst Description: Gray, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Cellulose 2%, Non-fibrous 98%			
ET5333AI02A 02	223073310-04 Location: 5C32 - Row 2: Light Gray Skim Coat Ceiling Plaster Row 1	No	NAD (by NYS ELAP 198.1) by Omar Hernandez on 07/24/23
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%			
ET5333AI02B 02	223073310-05 Location: 5C32 - Row 2: Light Gray Skim Coat Ceiling Plaster Row 1	No	NAD (by NYS ELAP 198.1) by Omar Hernandez on 07/24/23
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%			

Client Name: Atlantic Testing Laboratories, Limited

PLM Bulk Asbestos ReportET5333; Broome DDSO Parking Lot Construction;
Binghamton, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
ET5333AI02C 02	223073310-06 Location: 5C32 - Row 2: Light Gray Skim Coat Ceiling Plaster Row 1	No	NAD (by NYS ELAP 198.1) by Omar Hernandez on 07/24/23
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100%			
ET5333AI03A 03	223073310-07 Location: Hallway - Row 3: Light Gray Block Mortar	No	NAD (by NYS ELAP 198.1) by Omar Hernandez on 07/24/23
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 1%, Non-fibrous 99%			
ET5333AI03B 03	223073310-08 Location: Hallway - Row 3: Light Gray Block Mortar	No	NAD (by NYS ELAP 198.1) by Omar Hernandez on 07/24/23
Analyst Description: Gray, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 2%, Non-fibrous 98%			
ET5333AI04A 04	223073310-09 Location: Stock Building - Row 4: Black Wall Coating	No	NAD (by NYS ELAP 198.6) by Omar Hernandez on 07/24/23
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 14.7%			
ET5333AI04B 04	223073310-10 Location: Stock Building - Row 4: Black Wall Coating	No	NAD (by NYS ELAP 198.6) by Omar Hernandez on 07/24/23
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 12.1%			
ET5333AI05A 05	223073310-11 Location: Parking Lot 1 - Row 5: Black Seam Sealant	No	NAD (by NYS ELAP 198.6) by Omar Hernandez on 07/24/23
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 73.2%			

Client Name: Atlantic Testing Laboratories, Limited

PLM Bulk Asbestos Report

ET5333; Broome DDSO Parking Lot Construction;
Binghamton, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
ET5333AI05B 05	223073310-12 Location: Parking Lot 1 - Row 5: Black Seam Sealant	No	NAD (by NYS ELAP 198.6) by Omar Hernandez on 07/24/23
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 23.9%			
ET5333AI06A 06	223073310-13 Location: Parking Lot 1 - Row 6: Off-White Block Mortar	No	NAD (by NYS ELAP 198.1) by Omar Hernandez on 07/24/23
Analyst Description: Gray, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%			
ET5333AI06B 06	223073310-14 Location: Parking Lot 1 - Row 6: Off-White Block Mortar	No	NAD (by NYS ELAP 198.1) by Omar Hernandez on 07/24/23
Analyst Description: Gray, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100%			

Reporting Notes:

Analyzed by: Omar Hernandez
Date: 7/24/2023



Reviewed by: Karol H. Lu



*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis using Motic, Model BA310 Pol Scope, Microscope, Serial #: 1190000538, by Appd E to Subpt E, 40 CFR 763 quantified by either CVES or 400 pt ct as noted for each analysis (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite, or ELAP 198.6 for NOB samples, or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054, NJ Lab ID #NY031.

_____END OF REPORT_____

Client Name: Atlantic Testing Laboratories, Limited

Table I
Summary of Bulk Asbestos Analysis Results

ET5333; Broome DDSO Parking Lot Construction; Binghamton, New York

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	ET5333AI01A	01	----	----	----	----	NAD	NA
	Location: 5C32 - Row 1: Gray Base Coat Ceiling Plaster							
02	ET5333AI01B	01	----	----	----	----	NAD	NA
	Location: 5C32 - Row 1: Gray Base Coat Ceiling Plaster							
03	ET5333AI01C	01	----	----	----	----	NAD	NA
	Location: 5C32 - Row 1: Gray Base Coat Ceiling Plaster							
04	ET5333AI02A	02	----	----	----	----	NAD	NA
	Location: 5C32 - Row 2: Light Gray Skim Coat Ceiling Plaster Row 1							
05	ET5333AI02B	02	----	----	----	----	NAD	NA
	Location: 5C32 - Row 2: Light Gray Skim Coat Ceiling Plaster Row 1							
06	ET5333AI02C	02	----	----	----	----	NAD	NA
	Location: 5C32 - Row 2: Light Gray Skim Coat Ceiling Plaster Row 1							
07	ET5333AI03A	03	----	----	----	----	NAD	NA
	Location: Hallway - Row 3: Light Gray Block Mortar							
08	ET5333AI03B	03	----	----	----	----	NAD	NA
	Location: Hallway - Row 3: Light Gray Block Mortar							
09	ET5333AI04A	04	0.146	76.3	9.0	14.7	NAD	NAD
	Location: Stock Building - Row 4: Black Wall Coating							
10	ET5333AI04B	04	0.131	79.4	8.5	12.1	NAD	NAD
	Location: Stock Building - Row 4: Black Wall Coating							
11	ET5333AI05A	05	0.477	15.3	11.5	73.2	NAD	NAD
	Location: Parking Lot 1 - Row 5: Black Seam Sealant							
12	ET5333AI05B	05	0.299	47.0	29.1	23.9	NAD	NAD
	Location: Parking Lot 1 - Row 5: Black Seam Sealant							
13	ET5333AI06A	06	----	----	----	----	NAD	NA
	Location: Parking Lot 1 - Row 6: Off-White Block Mortar							
14	ET5333AI06B	06	----	----	----	----	NAD	NA
	Location: Parking Lot 1 - Row 6: Off-White Block Mortar							

Client Name: Atlantic Testing Laboratories, Limited

Table I
Summary of Bulk Asbestos Analysis Results
 ET5333; Broome DDSO Parking Lot Construction; Binghamton, New York

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
----------------------	----------------	------------	----------------------------	--------------------------------	--------------------------------	--	----------------------------	-------------------------

Analyzed by: Karol H. Lu
 Date: 7/25/2023



Reviewed by: Karol H. Lu



**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by Appd E to Subpt E, 40 CFR 763 or NYSDOH ELAP 198.1 for New York friable samples or NYSDOH ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (or NYSDOH ELAP 198.4; for New York samples). Analysis using Hitachi, Model H600-Noran 7 System, Microscope, Serial #: 600-27-6. NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = < 1%; (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses): NVLAP (PLM) 200546-0, NYSDOH ELAP Lab 11480, NJ Lab ID #NY031.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).



ATLANTIC TESTING LABORATORIES

ASBESTOS BULK SAMPLE CHAIN-OF-CUSTODY RECORD

Albany

22 Corporate Drive
Clifton Park, NY 12065
518-383-9144 (T)
518-383-9166 (F)

Binghamton

126 Park Avenue
Binghamton, NY 13903
607-773-1812 (T)
607-773-1835 (F)

Canton

6431 U.S. Highway 11
Canton, NY 13617
315-386-4578 (T)
315-386-1012 (F)

Plattsburgh

130 Arizona Ave
Plattsburgh, NY 12903
518-563-5878 (T)
518-562-1321 (F)

Poughkeepsie

251 Upper North Road
Highland, NY 12528
845-691-6098 (T)
845-691-6099 (F)

Rochester

3495 Winton Place
Rochester, NY 14623
585-427-9020 (T)
585-427-9021 (F)

Syracuse

6085 Court Street Road
Syracuse, NY 13206
315-699-5281 (T)
315-699-3374 (F)

Utica

301 St. Anthony Street
Utica NY 13501
315-735-3309 (T)
315-735-0742 (F)

Watertown

26581 NYS Route 283
Watertown, NY 13601
315-786-7887 (T)
315-786-2022 (F)

labsAT@atlantictesting.com labsET@atlantictesting.com labsCT@atlantictesting.com labsPL@atlantictesting.com labsPT@atlantictesting.com labsRT@atlantictesting.com labsST@atlantictesting.com labsUT@atlantictesting.com labsWT@atlantictesting.com

Project Number: ET5333	Project Name: Broome DDSO Parking Lot Construction	Project Location: Binghamton, New York
------------------------	--	--

Project Manager: Jordan Stachowiak	Email Results: <i>labs ET</i> @atlantictesting.com	Page Number: 1 of 2
------------------------------------	--	---------------------

Turn Around Time:	<input type="checkbox"/> 12 hr	<input type="checkbox"/> 24 hr	<input type="checkbox"/> 48 hr	<input type="checkbox"/> 72 hr	<input checked="" type="checkbox"/> 5 day	<input type="checkbox"/> Other:
-------------------	--------------------------------	--------------------------------	--------------------------------	--------------------------------	---	---------------------------------

Special Instructions: <input checked="" type="checkbox"/> Positive Stop Analysis	<input checked="" type="checkbox"/> If negative by PLM-NOB, analyze by TEM-NOB	<input type="checkbox"/> Other:
--	--	---------------------------------

Date	Sample Number	Sample Location	Sample Description	PLM	PLM-NOB	TEM-NOB	Laboratory Sample ID Number
07/19/2023	ET5333AI01A	5C32	Row 1: Gray Base Coat Ceiling Plaster		X	X	
07/19/2023	ET5333AI01B	5C32	Row 1: Gray Base Coat Ceiling Plaster		X	X	
07/19/2023	ET5333AI01C	5C32	Row 1: Gray Base Coat Ceiling Plaster		X	X	
07/19/2023	ET5333AI02A	5C32	Row 2: Light Gray Skim Coat Ceiling Plaster Row 1		X	X	
07/19/2023	ET5333AI02B	5C32	Row 2: Light Gray Skim Coat Ceiling Plaster Row 1		X	X	
07/19/2023	ET5333AI02C	5C32	Row 2: Light Gray Skim Coat Ceiling Plaster Row 1		X	X	
07/19/2023	ET5333AI03A	hallway	Row 3: Light Gray Block Mortar	X			
07/19/2023	ET5333AI03B	Hallway	Row 3: Light Gray Block Mortar	X			
07/19/2023	ET5333AI04A	stock building	Row 4: Black Wall Coating		X	X	
07/19/2023	ET5333AI04B	stock building	Row 4: Black Wall Coating		X	X	

Sampler:	Laboratory:	Field and Laboratory Remarks:
Name: <i>Jordan Stachowiak</i> Date: <i>7/19/2023</i>	Name: _____ Date: _____	223078310
Signature: <i>[Signature]</i> Time: <i>1400</i>	Signature: _____ Time: _____	
Samples Relinquished By:	Samples Received By:	
Name: <i>Jordan Stachowiak</i> Date: <i>7/19/2023</i>	Name: <i>Fed Ex</i> Date: _____	
Signature: <i>[Signature]</i> Time: <i>1200</i>	Signature: <i>Prop Box</i> Time: _____	
Name: _____ Date: _____	Name: <i>J. Byrne</i> Date: <i>7/20/23</i>	
Signature: _____ Time: _____	Signature: <i>[Signature]</i> Time: <i>1310</i>	



ATLANTIC TESTING LABORATORIES

ASBESTOS BULK SAMPLE CHAIN-OF-CUSTODY RECORD

Albany

22 Corporate Drive
Clifton Park, NY 12065
518-383-9144 (T)
518-383-9166 (F)

Binghamton

126 Park Avenue
Binghamton, NY 13903
607-773-1812 (T)
607-773-1835 (F)

Canton

6431 U.S. Highway 11
Canton, NY 13617
315-386-4578 (T)
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130 Arizona Ave
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518-562-1321 (F)

Poughkeepsie

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Highland, NY 12528
845-691-6098 (T)
845-691-6099 (F)

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Rochester, NY 14623
585-427-9020 (T)
585-427-9021 (F)

Syracuse

6085 Court Street Road
Syracuse, NY 13206
315-699-5281 (T)
315-699-3374 (F)

Utica

301 St. Anthony Street
Utica NY 13501
315-735-3309 (T)
315-735-0742 (F)

Watertown

26581 NYS Route 283
Watertown, NY 13601
315-786-7887 (T)
315-786-2022 (F)

labsAT@atlantictesting.com labsET@atlantictesting.com labsCT@atlantictesting.com labsPL@atlantictesting.com labsPT@atlantictesting.com labsRT@atlantictesting.com labsST@atlantictesting.com labsUT@atlantictesting.com labsWT@atlantictesting.com

Project Number: ET5333		Project Name: Broome DDSO Parking Lot Construction			Project Location: Binghamton, New York			
Project Manager: Jordan Stachowiak		Email Results: <i>labs ET</i> @atlantictesting.com			Page Number: 2 of 2			
Turn Around Time:	<input type="checkbox"/> 12 hr	<input type="checkbox"/> 24 hr	<input type="checkbox"/> 48 hr	<input type="checkbox"/> 72 hr	<input checked="" type="checkbox"/> 5 day	<input type="checkbox"/> Other:		
Special Instructions:	<input checked="" type="checkbox"/> Positive Stop Analysis		<input checked="" type="checkbox"/> If negative by PLM-NOB, analyze by TEM-NOB		<input type="checkbox"/> Other:			
Date	Sample Number	Sample Location	Sample Description	PLM	PLM-NOB	TEM-NOB	Laboratory Sample ID Number	
07/19/2023	ET5333AI05A	parking lot 1	Row 5: Black Seam Sealant		X	X		
07/19/2023	ET5333AI05B	parking lot 1	Row 5: Black Seam Sealant		X	X		
07/19/2023	ET5333AI06A	parking lot 1	Row 6: Off-White Block Mortar	X				
07/19/2023	ET5333AI06B	parking lot 1	Row 6: Off-White Block Mortar	X				
Sampler:			Laboratory:		Field and Laboratory Remarks:			
Name: <i>Jordan St</i> Date: <i>7/19/23</i>			Name: _____ Date: _____		223073310			
Signature: <i>[Signature]</i> Time: <i>1400</i>			Signature: _____ Time: _____					
Samples Relinquished By:			Samples Received By:					
Name: <i>Jordan St</i> Date: <i>7/19/23</i>			Name: <i>Fed Ex</i> Date: _____					
Signature: <i>[Signature]</i> Time: <i>1700</i>			Signature: <i>Prop Box</i> Time: _____					
Name: _____ Date: _____			Name: <i>J. Byrne</i> Date: <i>7/20/23</i>					
Signature: _____ Time: _____			Signature: <i>[Signature]</i> Time: <i>1310</i>					



ANALYTICAL REPORT

Lab Number:	L2341517
Client:	Atlantic Testing Laboratories, Limited 126 Park Avenue Binghamton, NY 13903
ATTN:	Jordan Stachowiak
Phone:	(607) 773-1812
Project Name:	BROOME DDSO PARKING LOT CON
Project Number:	ET5333
Report Date:	07/27/23

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: BROOME DDSO PARKING LOT CON
Project Number: ET5333

Lab Number: L2341517
Report Date: 07/27/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2341517-01	ET5333PI05	SOLID	BINGHAMTON, NEW YORK	07/19/23 10:07	07/19/23

Project Name: BROOME DDSO PARKING LOT CON
Project Number: ET5333

Lab Number: L2341517
Report Date: 07/27/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: BROOME DDSO PARKING LOT CON
Project Number: ET5333

Lab Number: L2341517
Report Date: 07/27/23


Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/27/23

ORGANICS

PCBS

Project Name: BROOME DDSO PARKING LOT CON
Project Number: ET5333

Lab Number: L2341517
Report Date: 07/27/23

SAMPLE RESULTS

Lab ID: L2341517-01
Client ID: ET5333PI05
Sample Location: BINGHAMTON, NEW YORK

Date Collected: 07/19/23 10:07
Date Received: 07/19/23
Field Prep: Not Specified

Sample Depth:

Matrix: Solid
Analytical Method: 1,8082A
Analytical Date: 07/25/23 11:42
Analyst: MEO
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3540C
Extraction Date: 07/24/23 10:45
Cleanup Method: EPA 3630
Cleanup Date: 07/25/23
Cleanup Method: EPA 3665A
Cleanup Date: 07/25/23
Cleanup Method: EPA 3660B
Cleanup Date: 07/25/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	662	188.	1	A
Aroclor 1221	ND		ug/kg	662	194.	1	A
Aroclor 1232	ND		ug/kg	662	147.	1	A
Aroclor 1242	ND		ug/kg	331	118.	1	A
Aroclor 1248	ND		ug/kg	662	186.	1	A
Aroclor 1254	ND		ug/kg	662	135.	1	A
Aroclor 1260	ND		ug/kg	662	149.	1	A
Aroclor 1262	ND		ug/kg	662	136.	1	A
Aroclor 1268	ND		ug/kg	331	117.	1	A
PCBs, Total	ND		ug/kg	331	117.	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		30-150	A
Decachlorobiphenyl	65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	90		30-150	B
Decachlorobiphenyl	70		30-150	B

Project Name: BROOME DDSO PARKING LOT CON
Project Number: ET5333

Lab Number: L2341517
Report Date: 07/27/23

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 07/25/23 10:46
Analyst: MEO

Extraction Method: EPA 3540C
Extraction Date: 07/24/23 10:45
Cleanup Method: EPA 3630
Cleanup Date: 07/25/23
Cleanup Method: EPA 3665A
Cleanup Date: 07/25/23
Cleanup Method: EPA 3660B
Cleanup Date: 07/25/23

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1806896-1						
Aroclor 1016	ND		ug/kg	521	148.	A
Aroclor 1221	ND		ug/kg	521	152.	A
Aroclor 1232	ND		ug/kg	521	116.	A
Aroclor 1242	ND		ug/kg	260	93.2	A
Aroclor 1248	ND		ug/kg	521	146.	A
Aroclor 1254	ND		ug/kg	521	106.	A
Aroclor 1260	ND		ug/kg	521	117.	A
Aroclor 1262	ND		ug/kg	521	107.	A
Aroclor 1268	ND		ug/kg	260	91.9	A
PCBs, Total	ND		ug/kg	260	91.9	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	79		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: BROOME DDSO PARKING LOT CON
Project Number: ET5333

Lab Number: L2341517
Report Date: 07/27/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1806896-2 WG1806896-3									
Aroclor 1016	69		65		40-140	6		50	A
Aroclor 1260	66		62		40-140	6		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		77		30-150	A
Decachlorobiphenyl	80		75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		77		30-150	B
Decachlorobiphenyl	85		80		30-150	B

Project Name: BROOME DDSO PARKING LOT CON**Lab Number:** L2341517**Project Number:** ET5333**Report Date:** 07/27/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

Container Information**Container ID** **Container Type**

L2341517-01A Glass 120ml/4oz unpreserved

Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
A	NA		2.9	Y	Absent		NYTCL-8082-CAULK(365)

Project Name: BROOME DDSO PARKING LOT CON
Project Number: ET5333

Lab Number: L2341517
Report Date: 07/27/23

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: BROOME DDSO PARKING LOT CON
Project Number: ET5333

Lab Number: L2341517
Report Date: 07/27/23

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: BROOME DDSO PARKING LOT CON
Project Number: ET5333

Lab Number: L2341517
Report Date: 07/27/23

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: BROOME DDSO PARKING LOT CON
Project Number: ET5333

Lab Number: L2341517
Report Date: 07/27/23

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625.1: alpha-Terpineol

EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L 2341517



ATLANTIC TESTING LABORATORIES PCB CHAIN-OF-CUSTODY RECORD

Albany 22 Corporate Drive Clifton Park, NY 12065 518-383-9144 (T) 518-383-9166 (F) labsAT@atlantictesting.com	Binghamton 126 Park Avenue Binghamton, NY 13903 607-773-1812 (T) 607-773-1835 (F) labsET@atlantictesting.com	Canton 6431 U.S. Highway 11 Canton, NY 13617 315-386-4578 (T) 315-386-1012 (F) labsCT@atlantictesting.com	Plattsburgh 130 Arizona Ave Plattsburgh, NY 12903 518-563-5878 (T) 518-562-1321 (F) labsPL@atlantictesting.com	Poughkeepsie 251 Upper North Road Highland, NY 12528 845-691-6098 (T) 845-691-6099 (F) labsPT@atlantictesting.com	Rochester 3495 Winton Place Rochester, NY 14623 585-427-9020 (T) 585-427-9021 (F) labsRT@atlantictesting.com	Syracuse 6085 Court Street Road Syracuse, NY 13206 315-699-5281 (T) 315-699-3374 (F) labsST@atlantictesting.com	Utica 301 St. Anthony Street Utica NY 13501 315-735-3309 (T) 315-735-0742 (F) labsUT@atlantictesting.com	Watertown 26581 NYS Route 283 Watertown, NY 13601 315-786-7887 (T) 315-786-2022 (F) labsWT@atlantictesting.com
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Project Number: ET5333		Project Name: Broome DDSO Parking Lot Construction			Project Location: Binghamton, New York				
Project Manager: Jordan Stachowiak		Email Results: <i>labs ET</i> @atlantictesting.com			Page Number: 1 of 1				
Turn Around Time:		<input type="checkbox"/> 12 hr	<input type="checkbox"/> 24 hr	<input type="checkbox"/> 48 hr	<input type="checkbox"/> 72 hr	<input type="checkbox"/> 5 day	<input checked="" type="checkbox"/> Other: <i>Standard 2 week TAT</i>		
Date	Time	Sample Number	Sample Location	Sample Description	Sample Type	Number of Containers	EPA 8082	Other	Laboratory Sample ID Number
07/19/2023	10:07	ET5333PI05	parking lot 1	Row 5: Black Seam Sealant	grab	1	X		
Sampler:			Laboratory:			DASNY			
Name: <i>Jordan Stachowiak</i> Date: <i>7/19/2023</i>			Name: _____ Date: _____						
Signature: <i>[Signature]</i> Time: <i>1400</i>			Signature: _____ Time: _____						
Samples Relinquished By:			Samples Received By:						
Name: <i>Jordan Stachowiak</i> Date: <i>7/19/2023</i>			Name: <i>Alpha Drop</i> Date: <i>07/19/23</i>						
Signature: <i>[Signature]</i> Time: <i>1700</i>			Signature: <i>[Signature]</i> Time: <i>1645 C.S.</i>						
Name: <i>C. Stepien</i> Date: <i>07/19/23</i>			Name: <i>Sharon [Signature]</i> Date: <i>7/20/23</i>						
Signature: <i>[Signature]</i> Time: <i>1645 C.S.</i>			Signature: _____ Time: <i>2030</i>						

APPENDIX D
SUMMARY TABLES

KEY FOR SUMMARY TABLES

Acronyms for the Known or Assumed ACM:

CFT = Ceramic Floor Tile

CWT = Ceramic Wall Tile

EPDM = Ethylene Propylene Diene Monomer

HVAC = Heating, Ventilation, and Air Conditioning

TSI = Thermal System Insulation

Abbreviations for Friable/ACM Type:

Y = Yes

N = No

M = Miscellaneous

S = Surfacing

T = Thermal System Insulation

Descriptions for Conditions:

The listed conditions of Good, Fair, and Poor generally correspond with the AHERA descriptions of Good, Damaged, and Significantly Damaged for different types of materials. The following summarizes additional details relative to the listed conditions.

Surfacing (Surf.) and Miscellaneous (Misc.) Materials

- Good: Material with no visible damage or deterioration, or showing only very limited damage or deterioration
- Fair: Material with characteristics of surface crumbling, blistered, water-stained, gouged, marred, or otherwise abraded over less than one tenth of the surface if the damage is evenly distributed or one quarter if the damage is localized.
- Poor: Material with one or more of the following characteristics:
 - Surface crumbling or blistering is present over at least one tenth of the surface, if the damage is evenly distributed or one quarter if the damage is localized.
 - One tenth (or one quarter, if localized) of material hanging from the surface, deteriorated, or showing adhesive failure.
 - Water stains, gouges, or mars over at least one tenth of the surface if the damage is evenly distributed or one quarter if the damage is localized.
 -

Thermal System Insulation (TSI) Materials

- Good: Material with no visible damage or deterioration, or showing only very limited damage or deterioration
- Fair: Material with one or more of the following characteristics:
 - A few water stains or less than one tenth of insulation with missing jackets.
 - Crushed insulation or water stains, gouges, punctures, or mars on up to one tenth of the insulation if the damage is evenly distributed or up to one quarter if the damage is localized.
- Poor: Material with one or more of the following characteristics:
 - Missing jackets on at least one tenth of the piping or equipment.
 - Crushed or heavily gouged or punctured insulation on at least one tenth of the component (pipe runs/risers, boiler, tank, duct, etc.) if the damage is evenly distributed or one quarter if the damage is localized.

Notes:

¹ Sample Location Plan is enclosed in Appendix B.

^{2a} NAD = No Asbestos Detected/ ^{2b} ND = Not detected above the laboratory method detection limit.

³ Quantities and locations are approximate and must be verified by asbestos abatement contractors prior to providing actual cost quotations and/or initiating abatement activities.

⁴ NA = Not Applicable

Table D-I
Summary of Suspect ACM and Analytical Results

Material	General Location^{1,3}	Friable / ACM Type	% Asbestos^{2a}	Condition	Sample Numbers	Estimated Quantity^{3,4}
Gray Base Coat Ceiling Plaster	Mechanical Room 5C32	N / M	NAD	Fair	ET5333AI01A ET5333AI01B ET5333AI01C	NA
Light Gray Skim Coat Ceiling Plaster	Mechanical Room 5C32	N / M	NAD	Fair	ET5333AI02A ET5333AI02B ET5333AI02C	NA
Light Gray Block Mortar	Hallway for Mechanical Room 5C32	Y / M	NAD	Fair	ET5333AI03A ET5333AI03B	NA
Black Wall Coating	Stock Building Foundation	N / M	NAD	Fair	ET5333AI04A ET5333AI04B	NA
Black Seam Sealant	Parking Lot 1 Sewage Drains	N / M	NAD	Fair	ET5333AI05A ET5333AI05B	NA
Off-White Curb Mortar	Parking Lot 1	Y / M	NAD	Fair	ET5333AI06A ET5333AI06B	NA

Table D-II
Summary of Suspect PCB-Containing Caulk/Sealant and Analytical Results

Color / Material Description	General Location¹	Sample Number	Total PCB (ppm)^{2b}
Black Seam Sealant	Parking Lot 1 Sewage Drains	ET5333PI05	ND

Table D-III
Summary of Universal Waste/Miscellaneous Hazardous Materials

Equipment/Component	General Location	Approximate Quantity³	Contaminant of Concern
Ballast for Fluorescent Light Fixture	Mechanical Room 5C32, Hallway for Mechanical Room 5C32 and Exterior Parking Lots	15-25	Observed Ballast Labeled Electronic - Not PCB Type, Potential DEHP or Lead Solder
Fluorescent Lamp	Mechanical Room 5C32, Hallway for Mechanical Room 5C32 and Exterior Parking Lots	45-60	Mercury
LED Lamps	Exterior	5-10	Metals
Exit Sign	Hallway for Mechanical Room 5C32	1	Doesn't appear to be Tritium containing, May contain batteries
Smoke Detectors	Hallway for Mechanical Room 5C32	3	Potential Americium 241 or Radium 226
Freezer	Exterior Maintenance Pavement Area	2	Possible (CFC, HCFC)
Fire Extinguishers	Mechanical Room 5C32 and Hallway for Mechanical Room 5C32	2	Dry Chemical Under Compressed Conditions
Building Systems Equipment	Mechanical Room 5C32	---	Equipment with Oil/Petroleum

APPENDIX E

SUMMARY OF XRF RESULTS AND CALIBRATION CHECKS

Table E-I
Summary of XRF Test Results - Lead Detected at Less than 1 mg/cm²

Reading No.	Date	Time	Structure	Member	Substrate	Side	Condition	Color	Site	Room	Result (mg/cm ²)
ET5333LX07	7/19/2023	10:05:29	Room	Wall	Plaster	D	Intact	Off-White	ET5333	Room 5C32	0.1
ET5333LX09	7/19/2023	12:03:09	Parking Lot	---	Asphalt	Center	Deteriorated	Yellow	ET5333	Parking Lot	0.1

Notes:

Alpha numerical room side designations were based on A beginning with the address side of the building and progressing clockwise around the room.

Table E-II
Summary of XRF Test Results - No Lead Detected

Reading No.	Date	Time	Structure	Member	Substrate	Side	Condition	Color	Site	Room	Result (mg/cm ²)
ET5333LX04	7/19/2023	10:03:50	Room	Wall	Plaster	A	Intact	Off-White	ET5333	Room 5C32	0.0
ET5333LX05	7/19/2023	10:04:15	Room	Wall	Plaster	B	Intact	Off-White	ET5333	Room 5C32	0.0
ET5333LX06	7/19/2023	10:04:34	Room	Wall	Plaster	C	Intact	Off-White	ET5333	Room 5C32	0.0
ET5333LX08	7/19/2023	10:06:15	Room	Ceiling	Plaster	Center	Intact	Off-White	ET5333	Room 5C32	0.0

Table E-III
Summary of XRF Calibration Results

Reading No.	Date	Time	Structure	Member	Substrate	Side	Condition	Color	Site	Room	Result (mg/cm²)
ET5333LX01	7/19/2023	9:56:34				Calibration			ET5333		0.9
ET5333LX02	7/19/2023	9:56:48				Calibration			ET5333		0.8
ET5333LX03	7/19/2023	9:59:15				Calibration			ET5333		0.9
ET5333LX10	7/19/2023	12:04:37				Calibration			ET5333		0.9
ET5333LX11	7/19/2023	12:04:50				Calibration			ET5333		0.8
ET5333LX12	7/19/2023	12:05:06				Calibration			ET5333		0.8

APPENDIX F

PHOTOGRAPH LOG OF IDENTIFIED MATERIALS

ATLANTIC TESTING LABORATORIES, Limited
ATL Report No. ET5333CE-01-08-23



Photograph 1: View of electric panel in room no. 5C32.



Photograph 2: View of smoke alarm in room no. 5C32.



Photograph 3: View of fire extinguisher in room no. 5C32.



Photograph 4: View of LED exterior Lights.

ATLANTIC TESTING LABORATORIES, Limited
ATL Report No. ET5333CE-01-08-23



Photograph 5: View of freezer located near the Maintenance Pavement Area.



Photograph 6: View of storm drain located at the Parking Lot Pavement Area.



Photograph 7: View of Parking Lot Pavement Area.



Photograph 8: View of Maintenance Pavement Area.

APPENDIX G

HISTORICAL RECORDS OBTAINED FROM EDR

Parking Lot Reconstruction

249 Glenwood Road
Binghamton, NY 13905

Inquiry Number: 7392919.5
July 21, 2023

The EDR-City Directory Image Report

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SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.

Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available business directory data at approximately five year intervals.

RECORD SOURCES

The EDR City Directory Report accesses a variety of business directory sources, including Haines, InfoUSA, Polk, Cole, Bresser, and Stewart. Listings marked as EDR Digital Archive access Cole and InfoUSA records. The various directory sources enhance and complement each other to provide a more thorough and accurate report.

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2020	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2017	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
2014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
2010	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
2005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
2000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
1995	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
1992	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information
1970	<input type="checkbox"/>	<input type="checkbox"/>	Calkin-Kelly Directory Co
1965	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Calkin-Kelly Directory Co
1961	<input type="checkbox"/>	<input type="checkbox"/>	Calkin-Kelly Directory Co
1958	<input type="checkbox"/>	<input type="checkbox"/>	Calkin-Kelly Directory Co
1948	<input type="checkbox"/>	<input type="checkbox"/>	Calkin-Kelly Directory Co
1940	<input type="checkbox"/>	<input type="checkbox"/>	Calkin-Kelly Directory Co
1930	<input type="checkbox"/>	<input type="checkbox"/>	Calkin-Kelly Directory Co

FINDINGS

TARGET PROPERTY STREET

249 Glenwood Road
Binghamton, NY 13905

Year CD Image Source

GLENWOOD RD

2020	pg A2	EDR Digital Archive	
2017	pg A6	Cole Information	
2014	pg A8	Cole Information	
2010	pg A10	Cole Information	
2005	pg A12	Cole Information	
2000	pg A14	Cole Information	
1995	pg A16	Cole Information	
1992	pg A17	Cole Information	
1970	-	Calkin-Kelly Directory Co	Target and Adjoining not listed in Source
1965	pg A18	Calkin-Kelly Directory Co	
1961	-	Calkin-Kelly Directory Co	Target and Adjoining not listed in Source
1958	-	Calkin-Kelly Directory Co	Target and Adjoining not listed in Source
1948	-	Calkin-Kelly Directory Co	Target and Adjoining not listed in Source
1940	-	Calkin-Kelly Directory Co	Target and Adjoining not listed in Source
1930	-	Calkin-Kelly Directory Co	Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

GLENWOOD RD 2020

138	JOANN CARD JOANN LASKOWSKY PAUL CARD
139	GEORGE SAMPSON MARTHA WILLIAMS TRISHA WILLIAMS VIRGINIA SAMPSON
140	JENNYFER GUEVARRA LORETO GUEVARRA
143	KATHRYN BORMANN
144	CHAD AKEY
145	CHAD EDWARDS SAMANTHA EDWARDS
146	CATALINO VEGA DOMINGA VEGA JACOB LEVIN THANIA SAMAYOA
147	KAREN CIATYK MARIAM CIATYK
149	CHERYL SUHADOLNIK
151	GLORIA SCHNEIDER ROBERT SCHNEIDER
153	ANITA PORTELLI JOSEPH PORTELLI
157	ANDREW PFEIFFER CHRISTI DERR
158	PHYLLIS GONOS ROBERT GONOS
159	ROSE CHESNICK
160	FRANCIS HILL
163	FELINA LEONARD MINDY HAMLYN RANDY TICKNOR
165	BRENDA CAUZ CORINNE CAUZ
222	PAVEL STEPANOV ZOYA STEPANOV
241	COSMO SANTACROSE
249	ATM EGGLESTON TINA FALLON KRISTEN R HAWLEY KEVIN PT MURRAY CASSAUNDRA PHD PERKOSKI VALERIE RAY ANGELA M SEAN O'HAGEN PH D PSYCHOLOGY SHAIKH DAANISH K MD SULLIVAN JOSEPH S
316	ASHANTI FRANK CHARLES WHALEN

GLENWOOD RD 2020 (Cont'd)

316	CHRISTINE WEISKOPFF DIANNA JAROSCH JEFFREY JULEVIC JOAN BERGMANN JOHN REGO MARIA SEAGRAVE NICHOLAS GABELLO PATRICIA MALKIN RICHARD VANOSTRAND SHAVELLE FRANK SHAWN WARD SHIRLEY WINTERS STEPHEN ALMY THOMAS NUGENT VOLUNTEERS OF AMERICA WILLIAM SWEETAY
409	CASANDRA PALMER JALYSSA PALMER JESSICA PALMER MINNIE PALMER OSCAR PALMER
435	BOCES BROOME BROOME TIOGA BOCES CAREER & TECHNICAL HIGH SCHOOL GRAHAM JEAN M LAPAN KATELYN STEWART BRIANNA WIGGINS AMY JEAN
436	LEGACY BAY
469	AARON GREGORY
474	EDITH TORRES MYKOLA FEDORCHUK YULIYA FEDORCHUK
478	AARON JUSTICE JENNINE JUSTICE MIECZYSLAW CZYZA
493	LORIE BREWER SHELLI CORDISCO
496	CHRISTOPHE LAYTON KATIE SEGRUE
500	CHAD SACCO JACOB MATT KATELIN SACCO PAUL REBNICKAR
501	JOHN RESSEGUIE
515	JOSEPH HUJAR SARA HUJAR
517	HANS VAN HOUTEN HOUTEN VAN HOUTEN LAUREN VAN HOUTEN

GLENWOOD RD 2020 (Cont'd)

519	ELIZABETH FRANKS
523	DOMINIC MARCHETTI JOAN MARCHETTI
525	ARTHUR HUJAR STEPHEN HUJAR TAMARA HUJAR
547	ESTHER ALLEN JOHN ALLEN JOLEE ALLEN RANDALL ALLEN SAMUEL ALLEN
695	KACY ZELESNIKAR MATTHEW ZELESNIKAR
697	DANIELLE YURECKA JANET YURECKA JONATHAN YURECKA RONALD YURECKA
699	GEORGE BARTLETT JESSICA WHITE JON WHITE JON WHITE SEPTIC & EXCAVATION MACKENZIE WHITE
704	MARY KAMINSKY
705	TIMOTHY VINKUNS
708	CASEY TOMBS CHRISTOPHER TOMBS JONATHAN TOMBS KATHARINA TOMBS PATRICIA TOMBS
709	JOHN KLYM WALTER SZMYRKO
710	NELSON FRANCHAK
711	ALBERT COLUMBUS ELAINE COLUMBUS
712	JESSICA SAMPLE ROBERT SAMPLE
714	ALPHONSE SHANNON ASHLEY BURNS GARY FRENCH JAKE FRENCH JUSTIN FRENCH REVA EASTON SUSAN SHANNON SUZANNE FRENCH
716	CHERYL MIDDENDORF ROBERT MIDDENDORF
717	ADOLPH RODRIGUEZ BRIAN THOMPSON EILEEN THOMPSON KATHLEEN PATRICK

GLENWOOD RD 2020 (Cont'd)

717	KRISTEN THOMPSON STEPHEN ZIMMERMAN THOMAS PATRICK
720	DONNA DURKOT THOMAS DURKOT
722	CAROLYN CZEBINIAK JOHN CZEBINIAK
731	RONALD HENECKER ROSEANN HENECKER
733	EDWARD GARBATY KAREN GARBATY MAXWELL GARBATY SARA GARBATY
734	CHRISTINA EVANS JASON EVANS
735	ANNETTE HOOVER
737	SCOTT MATHEWS SHERRI BIRD
739	CAROL ARMSTRONG JAMES ARMSTRONG SHARON RANDALL
740	BARBARA DURKOT
741	GARY ORZEL NANCY BUONGIORNE RITA CARR
743	RALPH BURDEN VICKIE BURDEN

GLENWOOD RD 2017

138	CARD, PAUL J
139	SAMPSON, GEORGE G
140	GUEVARRA, LORETO C
146	VEGA, CATALINO
147	CIATYK, KAREN R
149	SUHADOLNIK, PAUL A
151	SCHNEIDER, ROBERT H
153	LUX, ANDRZEJ H
	PORTELLI, JOSEPH F
157	ARANA, FRANCISCO J
158	GONOS, ROBERT J
159	CHESNICK, RAYMOND A
160	HILL, FRANCIS M
	YOUNG, KALEENA L
165	JUMPER, EDWARD A
222	STEPANOV, PAVEL
316	ALMY, STEPHEN
	BATCHLOR, MARJORIE
	BERTA, THERESA
	BOYLE, R
	FRANK, SHAVELLE
	GABELLO, NICHOLAS F
	HAUBER, WENDY
	JULEVIC, KIMBERLY J
	KRANENBURG, CATHRYN S
	LOTT, CHRISTINE M
	MURPHY, THOMAS E
	NUGENT, THOMAS M
	REGO, JOHN F
	SMITH, CHRISTINE M
	VANOSTRAND, RICHARD E
	WASSMER, P
	WELLS, DONNA J
	WHALEN, CHARLES
	WHEELER, JOHN C
	WINTERS, SHIRLEY J
409	HAYES, JESSICA T
435	BOARDS OF COOPERATIVE EDUCATIONAL SE
436	LEGACY BAY TOWNHOMES
474	FEDORCHUK, YULIYA
478	JUSTICE, AARON E
	KOSTICK, BARBARA H
496	LAYTON, CHRISTOPHER R
500	REBNICKAR, PAUL
501	STEVENS, HAROLD W
513	SHEREDY, PAUL E
515	HUJAR, JOSEPH J
517	VANHOUTEN, HANS H
519	WISE, JOHN L
523	MARCHETTI, DOMINIC A

GLENWOOD RD 2017 (Cont'd)

525	HUJAR, ART J
547	ALLEN, CRAIG R
695	ZELESNIKAR, MATTHEW D
697	YURECKA, RONALD J
699	JON WHITE SEPTIC & EXCAVATION SERVIC WHITE, JON C
705	VINKUNS, TIM L
708	TOMBS, CASEY
709	KLYM, JOHN
710	DURKOT, WILLIAM J
712	RUMINSKI, MARK J
714	EASTON, REVA P
716	MIDDENDORF, ROBERT B
717	PATRICK, THOMAS M
720	DURKOT, DONNA M
731	HENECKER, RON R
733	GARBATY, EDWARD A
734	EVANS, CHRISTINA
739	ARMSTRONG, JAMES S
741	CARR, RITA A DURKOT, BARB ORZEL, GARY P
743	BURDEN, RALPH S

GLENWOOD RD 2014

138	CARD, PAUL J
139	OCCUPANT UNKNOWN,
140	GUEVARRA, LORETO C
143	BORMANN, KATHRYN D
144	GILLIKAN, DAVID L
145	MARHEEFKA, JOHN J
146	LEVIN, JACOB Y
	ROSENGREN, ROBERT
	VEGA, CATALINO
147	CIATYK, KAREN A
151	SCHNEIDER, ROBERT H
153	LUX, ANDRZEJ H
	PORTELLI, JOSEPH F
155	THORNTON, JULIE M
157	BADGER, KAYLA J
	DERR, CHRISTI
158	GONOS, ROBERT J
159	CHESNICK, RAYMOND A
160	CONKLIN, TERESA
	FRANCES, JABLONSKI
	HILL, FRANCIS M
163	TICKNOR, ERFORD
165	CAUZ, BRENDA C
172	SHAFFER, ALBETH
222	STEPANOV, PAVEL
316	ALMY, STEPHEN
	BERTA, THERESA
	BOYLE, R
	DAVIS, JAMES
	GABELLO, NICHOLAS F
	HAUBER, WENDY
	JULEVIC, KIMBERLY J
	LOTT, CHRISTINE M
	MURPHY, THOMAS E
	NUGENT, THOMAS M
	SMITH, CHRISTINE M
	SWEETAY, WILLIAM P
	VANOSTRAND, RICHARD E
	WARD, SHAWN
	WASSMER, P
	WHALEN, CHARLES
	WHEELER, JOHN
	WINTERS, SHIRLEY J
409	PROPER, GORDON P
435	BOARDS OF COOPERATIVE EDUCATIONAL SE
	BOCES CIRCLE OF FRIENDS CHILD CARE C
474	RIOS, JOSE A
478	JUSTICE, AARON E
493	DEKAR, WANDA T
496	OCCUPANT UNKNOWN,

GLENWOOD RD 2014 (Cont'd)

500	REBNICKAR, PAUL
501	STEVENS, HAROLD W
513	OCCUPANT UNKNOWN,
517	HUJAR, JOSEPH
519	FRANKS, JOHN M
523	MARCHETTI, DOMINIC A
525	HUJAR, ART J
547	ALLEN, CRAIG R
695	BLASIK, WALTER M
699	JON WHITE SEPTIC & EXCAVATION SERVIC
	OCCUPANT UNKNOWN,
704	OCCUPANT UNKNOWN,
705	VINKUNS, TIM L
708	TOMBS, CASEY J
709	KLYM, JOHN
710	DURKOT, THOMAS W
711	COLUMBUS, AL F
712	RUMINSKI, MARK J
714	COWER, JAN J
716	MIDDENDORF, ROBERT B
717	THOMPSON, MATT S
720	DURKOT, WILLIAM J
722	OCCUPANT UNKNOWN,
727	HARTMAN, JAY P
728	DURKOT, DONNA
729	OCCUPANT UNKNOWN,
731	HENECKER, RON R
733	GARBATY, EDWARD A
734	DESANTIS, MICHAEL J
739	ARMSTRONG, JAMES S
741	CARR, RITA J
	ORZEL, GARY P
743	BURDEN, RALPH S

GLENWOOD RD 2010

138	CARD, PAUL J
139	WILLIAMS, TRISHA
140	GUEVARRA, LORETO C
143	DALTON, RONALD L
144	GILLIKAN, DAVID L
145	MARHEFKA, BERNARD E
146	ORMSBY, RONALD
	RILEY, TANYA
	VEGA, CATALINO
147	CIATYK, MARIAM R
149	SUHADOLNIK, ANTOINETTE J
151	SCHNEIDER, ROBERT H
153	PORTELLI, JOSEPH F
155	OCCUPANT UNKNOWN,
157	MCCOY, THOMAS W
158	GONOS, ROBERT J
159	CHESNICK, RAYMOND A
160	HILL, FRANCIS M
163	LEONARD, FELINA
165	CAUZ, BRENDA C
172	SHAFFER, A
222	STEPANOV, PAVEL
249	BROOME DEVELOPMENTAL CTR
	COLAS CRAIG S DDS
	MASTRONARDI DANTE D
	POWELL JOHN R DO
	PRASARN VISUT MD
	REGIONAL RHEUMATOLOGY ASSOC
	VINLUAN AURELIO F J MD
316	AMIDON, JEAN L
	BENNETT, BEVERLY J
	BERGMANN, JOAN H
	ESCOVAR, DANIEL
	GABELLO, NICHOLAS F
	JAN, SMITH
	KASPARIAN, MICHAEL
	NUGENT, THOMAS
	OWENS, CHRISTOPHER
	REPPARD, LISA M
	SLAVETSKAS, PAUL J
	STURDEVANT, STEPHEN A
	SULLIVAN, GERALD V
	SWEETAY, WILLIAM P
	VANOSTRAND, RICHARD E
	WARD, SHAWN
	WHALEN, CHARLES
	WHEELER, JOHN
	WHIPPLE, GARY
409	PROPER, GORDON P
435	BOCES

GLENWOOD RD 2010 (Cont'd)

435	BOCES CIRCLE OF FRIENDS BOCES STUDENT DATA CTR BROOME TIOGA BOCES CAREER & TECHNICAL HIGH SCHOOL
469	VANDUZER, PAUL G
474	TORRES, EDITH S
478	CZYZA, MIECZYSLAW S KOSTICK, STEVE A
493	AMEEN, JOSEPH G
496	LAYTON, CHRISTOPHER
500	SEVERANCE, DEBRA A
501	STEVENS, HAROLD W
513	SHEREDY, PAUL E
515	HUJAR, TAMARA L
517	HUJAR, CHRISTINA M
519	FRANKS, JOHN M
523	MARCHETTI, DOMINIC A
525	HUJAR, ART J
547	ALLEN, RANDALL L
695	BLASIK, WALTER M
704	WITTMER, CAROLYN
705	VINKUNS, TIM L
708	KENHART, EDWARD
709	KLYM, JOHN
710	FRANCHAK, J
711	COLUMBUS, AL F
712	OCCUPANT UNKNOWN,
714	SHANNON, ALPHONSE T
716	FISCHER, CHERYL L
717	THOMPSON, BRIAN S
720	DURKOT, WILLIAM J
722	DROPP, HELEN M
727	HARTMAN, JAY P
729	OCCUPANT UNKNOWN,
731	HENECKER, RON R
733	GARBATY, EDWARD A
734	DESANTIS, DAVID J
735	PUFKY, LILLIAN F
737	UVEGES, FRANCIS K
739	ARMSTRONG, JAMES S
741	ORZEL, GARY P
743	BURDEN, RALPH S
761	MIDDENDORF, ROBERT

GLENWOOD RD 2005

138	CARD, PAUL J
139	OCCUPANT UNKNOWN,
140	CHARLES, ELLERY K
143	WESTON, PETER W
144	GILLIKAN, DAVID L
145	MARHEFKA, BERNARD E
146	DESANDO, PHILIP G
	HACKER, DOUGLAS
	LOWE, SUSAN D
	ROSENGREN, ROBERT
147	CIATYK, KAREN A
149	SUHADOLNIK, A J
151	SCHNEIDER, ROBERT H
153	PORTELLI, JOSEPH F
155	THORNTON, JULIE M
157	HAYES, JENNIFER
	KENYON, DANIELLE M
158	GONOS, ROBERT J
159	CHESNICK, RAYMOND A
165	JUMPER, ED F
222	STEPANOV, PAVEL
249	AURORA TAN MD
	BROOME DEVELOPMENT LIBRARY
	DROOME DEVELOPMENTAL
	STATE EMPLOYEE FED CREDIT UN
316	ABRAMS, DANIEL W
	ACLY, LAVERN A
	BENNETT, BEVERLY J
	ESCOVAR, DANIEL
	GABELLO, NICHOLAS F
	GARCIA, RAQUEL
	GRATTAN, F
	JAN, SMITH
	KRONK, KEN V
	NEWTON, JEAN L
	SLAVETSKAS, PAUL J
	STURDEVANT, STEPHEN A
	VANOSTRAND, RICHARD E
	WARD, SHAWN
	WEISKOPFF, CHRISTINE A
	WHEELER, JOHN
	WINTERS, SHIRLEY J
	WORKMAN, KRISTEEN L
409	OCCUPANT UNKNOWN,
435	BOARD OF COOP EDUCATIONAL SERVICES
	BOCES
	BOCES CIRCLE OF FRIENDS CHILD CARE C
469	OCCUPANT UNKNOWN,
474	RIOS, JOSE A
478	EMMITT, KIM A

GLENWOOD RD 2005 (Cont'd)

478 OCCUPANT UNKNOWN,
493 DEKAR, PAUL P
496 OCCUPANT UNKNOWN,
500 RIBNICKER, ELIZABETH
501 STEVENS, HAROLD W
513 SHEREDY, PAUL E
515 HUJAR, TAMARA L
517 HUJAR, CHRISTINA M
519 FRANKS, JOHN M
523 MARCHETTI, DOMINIC A
525 HUJAR, ART J
547 ALLEN, RANDALL L
OCCUPANT UNKNOWN,
695 BLASIK, WALTER M
704 TURNER, CONSTANCE
705 VINKUNS, BERNARD V
708 TOMBS, JOHN C
709 KLYM, JOHN
710 FRANCHAK, J
711 COLUMBUS, AL F
712 RUMINSKI, MARK J
714 SHANNON, ALPHONSE T
716 FISCHER, CHERYL L
717 THOMPSON, BRIAN S
720 DURKOT, WILLIAM J
722 DROPP, HELEN M
727 OCCUPANT UNKNOWN,
729 GOSSELIN, DAVID L
731 HENECKER, RON R
733 OCCUPANT UNKNOWN,
734 DESANTIS, DAVID J
735 PUFKY, LILLIAN F
737 UVEGES, FRANCIS K
739 ARMSTRONG, JAMES S
741 OCCUPANT UNKNOWN,
743 OCCUPANT UNKNOWN,

GLENWOOD RD 2000

104	OCCUPANT UNKNOWN,
106	OCCUPANT UNKNOWN,
108	OCCUPANT UNKNOWN,
109	OCCUPANT UNKNOWN,
110	OCCUPANT UNKNOWN,
115	OCCUPANT UNKNOWN,
118	OCCUPANT UNKNOWN,
119	VOROBEL, M M
120	OCCUPANT UNKNOWN,
138	TURAN, ANNA
139	VANCA, MICHAEL
140	CHARLES, ELLERY
143	WESTON, PETER
144	GILLIKAN, DAVID L
145	MARHEFKA, BERNARD E
146	CAPANI, MICHAEL T
	RUFFO, RON J
147	OCCUPANT UNKNOWN,
149	SUHADOLNIK, PAUL
151	SCHNEIDER, ROBERT
153	PORTELLI, A
155	ALESI, M
158	ANSARI, RENEE
159	CHESNICK, RAYMOND A
160	HALASZ, DREW
163	KLENOTICH, WILMA S
165	JUMPER, ED
200	WASSON, JANE
222	CAHORSHAK, ROBERT F
249	BROOME DEVLPMNTL SERVICE OFFICE OF REVENUE & REIMBURSE
	GREAT BEGINNINGS CHILD CARE INCORPORATED
316	ACLY, LAVERN
	BENNETT, BEVERLY J
	CLOUGH, ROBERT J
	GABELLO, N F
	HAGAN, P R
	JAN, SMITH
	LEHR, LUCINDA L
	OSTRAND, RICHARD
	PANKO, GREG
	SLAVETSKAS, PAUL
	STURDEVANT, STEPHEN A
	SWEETAY, WILLIAM
	WEISKOPFF, C
	WHEELER, JOHN
	WINTERS, S
	WORKMAN, K L
	YELLE, G
435	BOCES BOCES MAIN CAMPUS
469	WARD, EARNEST C

GLENWOOD RD 2000 (Cont'd)

474	RIOS, JOSE A
493	AMEEN, DAVID J
500	RIBNICKER, E
501	STEVENS, HAROLD
513	SHEREDY, PAUL E
515	OCCUPANT UNKNOWN,
517	HUJAR, C
519	FRANKS, BETTY
523	MARCHETTI, DOMINIC
525	HUJAR, STANLEY
547	ALLEN, RANDY
	GORMAN, S
695	BLASIK, MICK
705	VINKUNS, BERNARD
709	KLYM, JOSEPH
711	COLUMBUS, ALBERT F
712	RUMINSKI, MARK J
714	OCCUPANT UNKNOWN,
716	PIECH, BRENT J
	WHITE JON M SEPTIC & EXCAVATION SERVICE
717	THOMPSON, BRIAN
720	DURKOT, WILLIAM J
722	DROPP, H M
727	BURDEN, RALPH
729	GOSELIN, LEONARD J
731	OCCUPANT UNKNOWN,
733	OCCUPANT UNKNOWN,
734	DESANTIS, DAVID J
735	OCCUPANT UNKNOWN,
737	OCCUPANT UNKNOWN,
739	ARMSTRONG, JAMES
741	B & C FOOD EQUIPT SVCE COMPANY
	KUPIEC, JERRY L
	SCHUUR ROBERT D JR

GLENWOOD RD 1995

249	BROOME DEVELOPMENTAL SERVICE OFC OF REVENUE & REIMBURSEMENTT
421	SOUTHERN TIER REGIONAL EDUCATION CENTER FOR ECONOMIC DEVELOP
435	TEACHERS CENTER OF BROOME COUNTY THE
741	B & C FOOD EQUIPT SVCE CO SCHUUR, ROBERT D, JR

GLENWOOD RD 1992

10	PRICE CHOPPER SUPER CENTER
33	KELLY, E M
109	DUDAK, A
118	FURMAN, DANIEL D
139	HLOPKO, J M
144	WENTZ, M
145	MARHEFKA, BERNARD E
146	DESANDO, PHILIP G RUFFO, RON J
153	ZIAC, OLGA S
157	FELLOWS, JEFF
158	GONOS, ROBERT J
159	CHESNICK, RAYMOND A
160	HALASZ, DREW NORMILE, MICHELLE
241	NYS MENTAL RETARDATION & DEVELOPME-BROOME DEVELOPMENTAL CENT
421	SOUTHERN TIER REGIONAL EDUCATION CENTER FOR ECONOMIC DEVELOP TEACHER CENTER THE
469	WARD, EARNEST C
474	RIOS, JOSE A
493	DEKAR, PAUL & WANDA
500	RIBNICKER, E
501	STEVENS, HAROLD, JR
533	COOLBAUGH, DARYL REDNER, ELLEN A
679	HARTMAN, JAY & JEAN
681	PATRICK, PETER
696	DROPP, PAUL
703	VINKUNS, BERNARD V
712	RUMINSKI, MARK J
714	ROSE, KEITH & REBEKAH
727	BURDEN, RALPH
729	GOSELIN, LEONARD J
731	HENECKER, RON
733	NAYLOR, M
734	DE SANTIS, DAVID J & CAROL M
739	ARMSTRONG, JAMES & CAROL
741	B & C FOOD EQUIPT SVCE CO BENJAMIN, V SCHUUR, ROBERT D, JR
53312	SCHYNDLER, K M

Parking Lot Reconstruction

249 Glenwood Road

Binghamton, NY 13905

Inquiry Number: 7392919.3

July 18, 2023

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

07/18/23

Site Name:

Parking Lot Reconstruction
249 Glenwood Road
Binghamton, NY 13905
EDR Inquiry # 7392919.3

Client Name:

Atlantic Testing Laboratories
P.O. Box 29
Canton, NY 13617
Contact: Jordan Stachowiak



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- University Publications of America
- EDR Private Collection

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APPENDIX H

ENVIRONMENTAL DATABASE INFORMATION OBTAINED FROM EDR

Parking Lot Reconstruction

249 Glenwood Road
Binghamton, NY 13905

Inquiry Number: 7392919.2s
July 18, 2023

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
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with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

249 GLENWOOD ROAD
BINGHAMTON, NY 13905

COORDINATES

Latitude (North): 42.1249610 - 42° 7' 29.85"
Longitude (West): 75.9391430 - 75° 56' 20.91"
Universal Transverse Mercator: Zone 18
UTM X (Meters): 422372.3
UTM Y (Meters): 4663863.5
Elevation: 1206 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 14121882 BINGHAMTON WEST, NY
Version Date: 2019

North Map: 14121892 CASTLE CREEK, NY
Version Date: 2019

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20190918
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
249 GLENWOOD ROAD
BINGHAMTON, NY 13905

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1		249 GLENWOOD ROAD	NY COOLING TOWERS		TP
A2		249 GLENWOOD ROAD	NY COOLING TOWERS		TP
A3	BROOME DEVELOPMENT C	249 GLENWOOD ROAD	US AIRS, FINDS, ECHO		TP
A4	BROOME DDSO ACCESS -	249 GLENWOOD RD	NY LTANKS, NY Spills, NY SPDES, NY COOLING TOWERS		TP
A5	BROOME COUNTY DEVELO	249 GLENWOOD ROAD	ICIS		TP
A6	BROOME DEVELOPMENTAL	249 GLENWOOD RD	NY UST, NY AST		TP
A7	SOUTH PIER TRUCKING	GLENWOOD RD. BR. DEV	NY LTANKS	Higher	1 ft.
B8	BROOME DEVELOPMENTAL	241 GLENWOOD RD	RCRA-VSQQ, NY LTANKS, NY MANIFEST, NJ MANIFEST	Lower	162, 0.031, SSE
B9	BROOME DEVELOPMENTAL	241 GLENWOOD RD	NY Spills	Lower	162, 0.031, SSE
10	BELLAIRE & SUNSET	BELLAIRE & SUNSET	NY Spills	Lower	435, 0.082, SSW
11	DON WARDS SERVICE ST	169 LOWER STELLA IRE	EDR Hist Auto	Lower	495, 0.094, West
12	GLENWOOD ROAD	GLENWOOD ROAD	NY LTANKS	Lower	533, 0.101, ESE
C13	JOE'S SERVICE	220 LOWER STELLA IRE	NY SWF/LF	Lower	720, 0.136, NW
14	JOHNSON CITY DUMP	197 LOWER STELLA IRE	NY SWF/LF, NY PFAS	Lower	852, 0.161, WNW
C15	JOSEPH PLESTIS	220 STELLA IRELAND R	NY UST	Lower	940, 0.178, NW
16	BOCES - GLENWOOD RD.	421 UPPER GLENWOOD R	NY LTANKS	Higher	1195, 0.226, NE
17	NEW ELY PARK DUMP SI	154 GLENWOOD ROAD (2	NY SWF/LF	Higher	1270, 0.241, SE
D18	ELY PAKK APARTMENTS	ELY PARK BLVD	NY LTANKS, NY Spills	Higher	1920, 0.364, NE
E19	MIRABITO #86	53 DOWNS AVE	NY LTANKS, NY UST, NY Spills	Lower	1974, 0.374, SSW
D20	ELY PARK CITY OF BIN	72-96 ELY PARK BLVD	NY SWF/LF	Higher	1974, 0.374, NE
E21	KOTASEK CORP.	23 MARKET ST	NY LTANKS	Lower	2194, 0.416, SSW
22	FORMER ENDICOTT JOHN	10 GANNETT DRIVE	NY ENG CONTROLS, NY INST CONTROL, NY BROWNFIELDS	Lower	2263, 0.429, SW
23	JOSE RIOS RESIDENCE	474 GLENWOOD RD	NY LTANKS	Higher	2290, 0.434, NE
24	GAF DUMP	CHARLES & SEYMOUR ST	NY SHWS	Lower	4154, 0.787, SSE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
249 GLENWOOD ROAD 249 GLENWOOD ROAD BINGHAMTON, NY 13905	NY COOLING TOWERS	N/A
249 GLENWOOD ROAD 249 GLENWOOD ROAD BINGHAMTON, NY 13905	NY COOLING TOWERS	N/A
BROOME DEVELOPMENT C 249 GLENWOOD ROAD BINGHAMTON, NY 13905	US AIRS Database: US AIRS (AFS), Date of Government Version: 10/12/2016 EPA plant ID:: 110019510331 FINDS Registry ID:: 110019510331 ECHO Registry ID: 110019510331	N/A
BROOME DDSO ACCESS - 249 GLENWOOD RD BINGHAMTON, NY 13901	NY LTANKS Spill Number/Closed Date: 1908227 / 2020-07-09 Site ID: 598400 Spill Date: 2019-11-15 NY Spills Spill Number/Closed Date: 0711000 / 2008-02-12 Spill Number/Closed Date: 1000015 / 2010-04-01 Spill Number/Closed Date: 9712275 / 1998-06-15 Site ID: 392405 Site ID: 426933 Site ID: 108863 Spill Date: 2008-01-17 Spill Date: 2010-04-01 Spill Date: 1998-02-03 NY SPDES Permit Number: NYR11J221 NY COOLING TOWERS	N/A
BROOME COUNTY DEVELO 249 GLENWOOD ROAD BINGHAMTON, NY 13905	ICIS FRS ID:: 110019510331	N/A
BROOME DEVELOPMENTAL 249 GLENWOOD RD BINGHAMTON, NY 13905	NY UST Database: UST, Date of Government Version: 02/14/2023 NY AST Database: AST, Date of Government Version: 02/14/2023	N/A

EXECUTIVE SUMMARY

Facility Id: 7-424862

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL..... National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS..... Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

EXECUTIVE SUMMARY

Lists of state and tribal leaking storage tanks

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
NY HIST LTANKS..... Listing of Leaking Storage Tanks

Lists of state and tribal registered storage tanks

FEMA UST..... Underground Storage Tank Listing
NY CBS UST..... Chemical Bulk Storage Database
NY MOSF UST..... Major Oil Storage Facilities Database
NY MOSF..... Major Oil Storage Facility Site Listing
NY CBS..... Chemical Bulk Storage Site Listing
NY CBS AST..... Chemical Bulk Storage Database
NY MOSF AST..... Major Oil Storage Facilities Database
INDIAN UST..... Underground Storage Tanks on Indian Land
NY TANKS..... Storage Tank Facility Listing

State and tribal institutional control / engineering control registries

NY RES DECL..... Restrictive Declarations Listing

Lists of state and tribal voluntary cleanup sites

NY VCP..... Voluntary Cleanup Agreements
INDIAN VCP..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

NY ERP..... Environmental Restoration Program Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

NY SWRCY..... Registered Recycling Facility List
NY SWTIRE..... Registered Waste Tire Storage & Facility List
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
NY DEL SHWS..... Delisted Registry Sites
US CDL..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

NY HIST UST..... Historical Petroleum Bulk Storage Database

EXECUTIVE SUMMARY

NY HIST AST..... Historical Petroleum Bulk Storage Database

Local Land Records

NY LIENS..... Spill Liens Information
LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
NY Hist Spills..... SPILLS Database
NY SPILLS 90..... SPILLS 90 data from FirstSearch
NY SPILLS 80..... SPILLS 80 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated
FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
FUSRAP..... Formerly Utilized Sites Remedial Action Program
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US MINES..... Mines Master Index File
ABANDONED MINES..... Abandoned Mines
DOCKET HWC..... Hazardous Waste Compliance Docket Listing
UXO..... Unexploded Ordnance Sites
FUELS PROGRAM..... EPA Fuels Program Registered Listing
PFAS NPL..... Superfund Sites with PFAS Detections Information
PFAS FEDERAL SITES..... Federal Sites PFAS Information
PFAS TSCA..... PFAS Manufacture and Imports Information
PFAS RCRA MANIFEST..... PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR..... PFAS Contamination Site Location Listing

EXECUTIVE SUMMARY

PFAS WQP.....	Ambient Environmental Sampling for PFAS
PFAS NPDES.....	Clean Water Act Discharge Monitoring Information
PFAS ECHO.....	Facilities in Industries that May Be Handling PFAS Listing
PFAS ECHO FIRE TRAINING.....	Facilities in Industries that May Be Handling PFAS Listing
PFAS PART 139 AIRPORT.....	All Certified Part 139 Airports PFAS Information Listing
AQUEOUS FOAM NRC.....	Aqueous Foam Related Incidents Listing
NY AIRS.....	Air Emissions Data
NY COAL ASH.....	Coal Ash Disposal Site Listing
NY DRYCLEANERS.....	Registered Drycleaners
NY E DESIGNATION.....	E DESIGNATION SITE LISTING
NY Financial Assurance.....	Financial Assurance Information Listing
NY HSWDS.....	Hazardous Substance Waste Disposal Site Inventory
NY LEAD.....	Lead-based Paint Testing Results
NY VAPOR REOPENED.....	Vapor Intrusion Legacy Site List
NY UIC.....	Underground Injection Control Wells
MINES MRDS.....	Mineral Resources Data System
PFAS TRIS.....	List of PFAS Added to the TRI

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

NY RGA HWS.....	Recovered Government Archive State Hazardous Waste Facilities List
NY RGA LF.....	Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal RCRA generators

RCRA-VSQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting

EXECUTIVE SUMMARY

the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-VSQG list, as provided by EDR, and dated 03/06/2023 has revealed that there is 1 RCRA-VSQG site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOME DEVELOPMENTAL EPA ID:: NYD982737751	241 GLENWOOD RD	SSE 0 - 1/8 (0.031 mi.)	B8	30

Lists of state- and tribal hazardous waste facilities

NY SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Conservation's Inactive Hazardous waste Disposal Sites in New York State.

A review of the NY SHWS list, as provided by EDR, and dated 02/06/2023 has revealed that there is 1 NY SHWS site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GAF DUMP Site Code: 58895	CHARLES & SEYMOUR ST	SSE 1/2 - 1 (0.787 mi.)	24	84

Lists of state and tribal landfills and solid waste disposal facilities

NY SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the list.

A review of the NY SWF/LF list, as provided by EDR, and dated 03/31/2023 has revealed that there are 4 NY SWF/LF sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
NEW ELY PARK DUMP SI	154 GLENWOOD ROAD (2	SE 1/8 - 1/4 (0.241 mi.)	17	48
ELY PARK CITY OF BIN	72-96 ELY PARK BLVD	NE 1/4 - 1/2 (0.374 mi.)	D20	62
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JOE'S SERVICE	220 LOWER STELLA IRE	NW 1/8 - 1/4 (0.136 mi.)	C13	42
JOHNSON CITY DUMP	197 LOWER STELLA IRE	WNW 1/8 - 1/4 (0.161 mi.)	14	43

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Lists of state and tribal leaking storage tanks

NY LTANKS: Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills

A review of the NY LTANKS list, as provided by EDR, and dated 02/06/2023 has revealed that there are 8 NY LTANKS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SOUTH PIER TRUCKING Spill Number/Closed Date: 9102106 / 1991-06-05 Site ID: 280504 Spill Date: 1991-05-22	GLENWOOD RD. BR. DEV	0 - 1/8 (0.000 mi.)	A7	29
BOCES - GLENWOOD RD. Spill Number/Closed Date: 9006826 / 1996-06-18 Site ID: 235159 Spill Date: 1990-09-19	421 UPPER GLENWOOD R	NE 1/8 - 1/4 (0.226 mi.)	16	47
ELY PAEK APARTMENTS Spill Number/Closed Date: 9706143 / 1997-09-04 Site ID: 239911 Spill Date: 1997-08-20	ELY PARK BLVD	NE 1/4 - 1/2 (0.364 mi.)	D18	49
JOSE RIOS RESIDENCE Spill Number/Closed Date: 9611461 / 1997-06-18 Site ID: 133204 Spill Date: 1996-12-18	474 GLENWOOD RD	NE 1/4 - 1/2 (0.434 mi.)	23	82
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOME DEVELOPMENTAL Spill Number/Closed Date: 8707603 / 1988-06-10 Site ID: 287390 Spill Date: 1987-12-04	241 GLENWOOD RD	SSE 0 - 1/8 (0.031 mi.)	B8	30
GLENWOOD ROAD Spill Number/Closed Date: 8710784 / 1988-06-10 Site ID: 287391 Spill Date: 1988-03-25	GLENWOOD ROAD	ESE 0 - 1/8 (0.101 mi.)	12	41
MIRABITO #86 Spill Number/Closed Date: 8903729 / 1989-08-03 Site ID: 251200 Spill Date: 1989-07-11	53 DOWNS AVE	SSW 1/4 - 1/2 (0.374 mi.)	E19	51
KOTASEK CORP. Spill Number/Closed Date: 9106805 / 1999-01-26 Site ID: 88985 Spill Date: 1991-09-24	23 MARKET ST	SSW 1/4 - 1/2 (0.416 mi.)	E21	63

EXECUTIVE SUMMARY

Lists of state and tribal registered storage tanks

NY UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database

A review of the NY UST list, as provided by EDR, has revealed that there is 1 NY UST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JOSEPH PLESTIS Database: UST, Date of Government Version: 02/14/2023	220 STELLA IRELAND R	NW 1/8 - 1/4 (0.178 mi.)	C15	44

State and tribal institutional control / engineering control registries

NY ENG CONTROLS: Environmental Remediation sites that have engineering controls in place.

A review of the NY ENG CONTROLS list, as provided by EDR, and dated 02/06/2023 has revealed that there is 1 NY ENG CONTROLS site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FORMER ENDICOTT JOHN Site Code: 58444	10 GANNETT DRIVE	SW 1/4 - 1/2 (0.429 mi.)	22	64

Environmental Remediation sites that have institutional controls in place.

A review of the NY INST CONTROL list, as provided by EDR, and dated 02/06/2023 has revealed that there is 1 NY INST CONTROL site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FORMER ENDICOTT JOHN Site Code: 58444	10 GANNETT DRIVE	SW 1/4 - 1/2 (0.429 mi.)	22	64

Lists of state and tribal brownfield sites

NY BROWNFIELDS: Brownfields Site List

A review of the NY BROWNFIELDS list, as provided by EDR, and dated 02/06/2023 has revealed that there is 1 NY BROWNFIELDS site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FORMER ENDICOTT JOHN Site Code: 58444	10 GANNETT DRIVE	SW 1/4 - 1/2 (0.429 mi.)	22	64

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Records of Emergency Release Reports

NY Spills: Data collected on spills reported to NYSDEC. is required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

A review of the NY Spills list, as provided by EDR, and dated 02/06/2023 has revealed that there are 2 NY Spills sites within approximately 0.125 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOME DEVELOPMENTAL Spill Number/Closed Date: 9713745 / 1998-03-17 Site ID: 205972 Spill Date: 1998-03-11	241 GLENWOOD RD	SSE 0 - 1/8 (0.031 mi.)	B9	38
BELLAIRE & SUNSET Spill Number/Closed Date: 8702939 / 1988-04-29 Site ID: 146472 Spill Date: 1987-07-10	BELLAIRE & SUNSET	SSW 0 - 1/8 (0.082 mi.)	10	39

Other Ascertainable Records

NY PFAS: DEC surveyed select businesses, fire departments, fire training centers, bulk storage facilities, airports, and Department of Defense (DoD) facilities. The responses to the survey have helped to determine if these entities used or stored materials containing PFOA/PFOS including AFFF and dispersants used in Teflon coating operations. The results of this survey will be updated periodically as additional responses are received..

A review of the NY PFAS list, as provided by EDR, has revealed that there is 1 NY PFAS site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
JOHNSON CITY DUMP Database: PFAS 2, Date of Government Version: 11/14/2022	197 LOWER STELLA IRE	WNW 1/8 - 1/4 (0.161 mi.)	14	43

NY MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the NY MANIFEST list, as provided by EDR, and dated 01/01/2019 has revealed that there is 1 NY MANIFEST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOME DEVELOPMENTAL EPA ID: NYD982737751	241 GLENWOOD RD	SSE 0 - 1/8 (0.031 mi.)	B8	30

EXECUTIVE SUMMARY

NJ MANIFEST: Hazardous waste manifest information.

A review of the NJ MANIFEST list, as provided by EDR, and dated 12/31/2018 has revealed that there is 1 NJ MANIFEST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOME DEVELOPMENTAL EPA Id: NYD982737751	241 GLENWOOD RD	SSE 0 - 1/8 (0.031 mi.)	B8	30

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

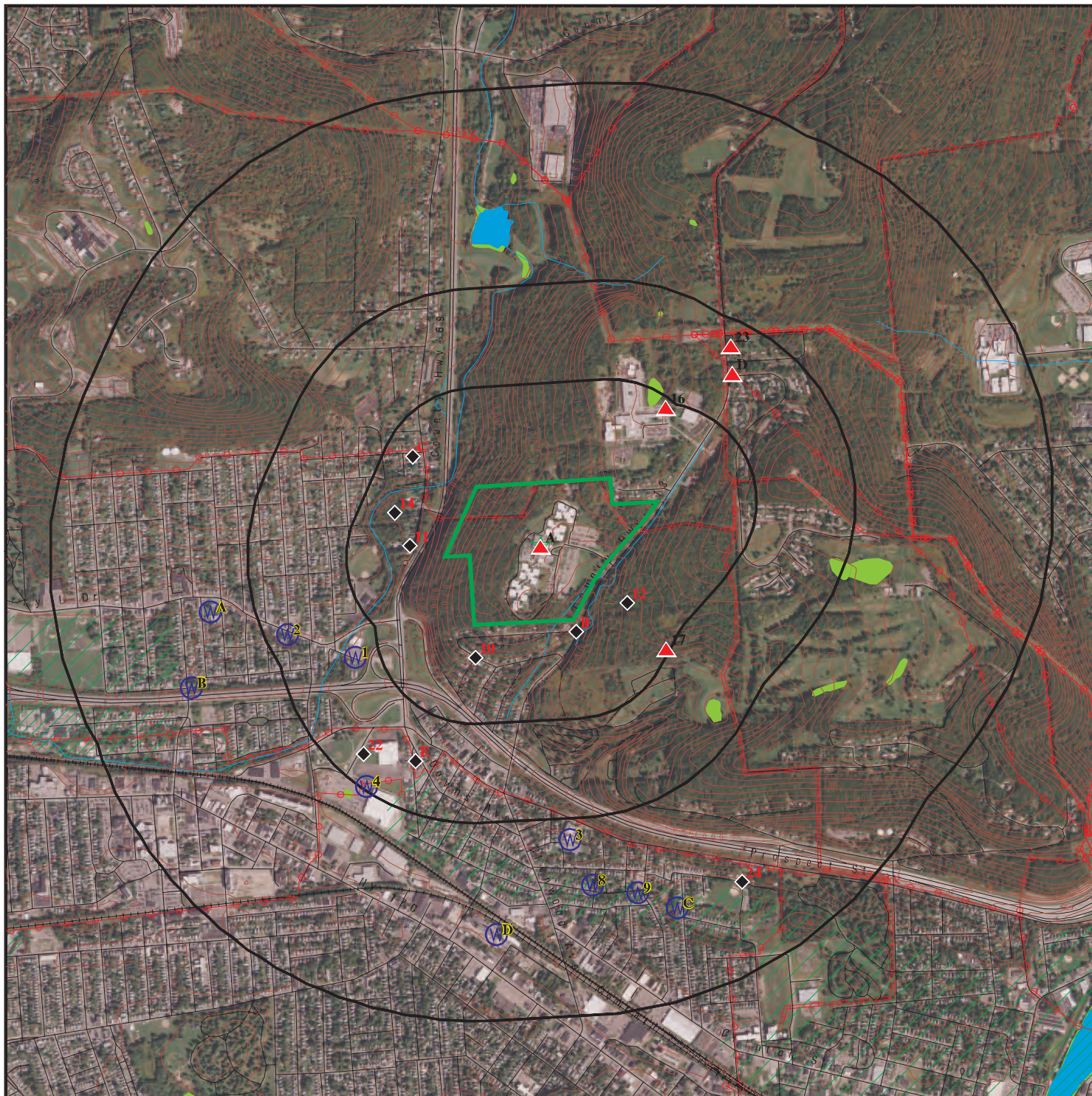
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DON WARDS SERVICE ST	169 LOWER STELLA IRE	W 0 - 1/8 (0.094 mi.)	11	40

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 9 records.

<u>Site Name</u>	<u>Database(s)</u>
GARDEN PLOT DUMP	NY SWF/LF, NY PFAS
93 MAIN STREET AREA VAPOR GW	NY SHWS
VESTAL / ENDICOTT DRY CLEANER.	NY SHWS
JOHNSON CITY WELLFIELD (DRY CLEANER)	NY SHWS
BALCH STREET DUMP SITE	NY SWF/LF
DELLAPENNA DUMP #2	NY SWF/LF
AIRPORT ROAD	NY LTANKS
ENDICOTT JOHNSON	NY LTANKS
FORMER RANGER PARACORD SITE	NY VCP

OVERVIEW MAP - 7392919.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Pipelines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

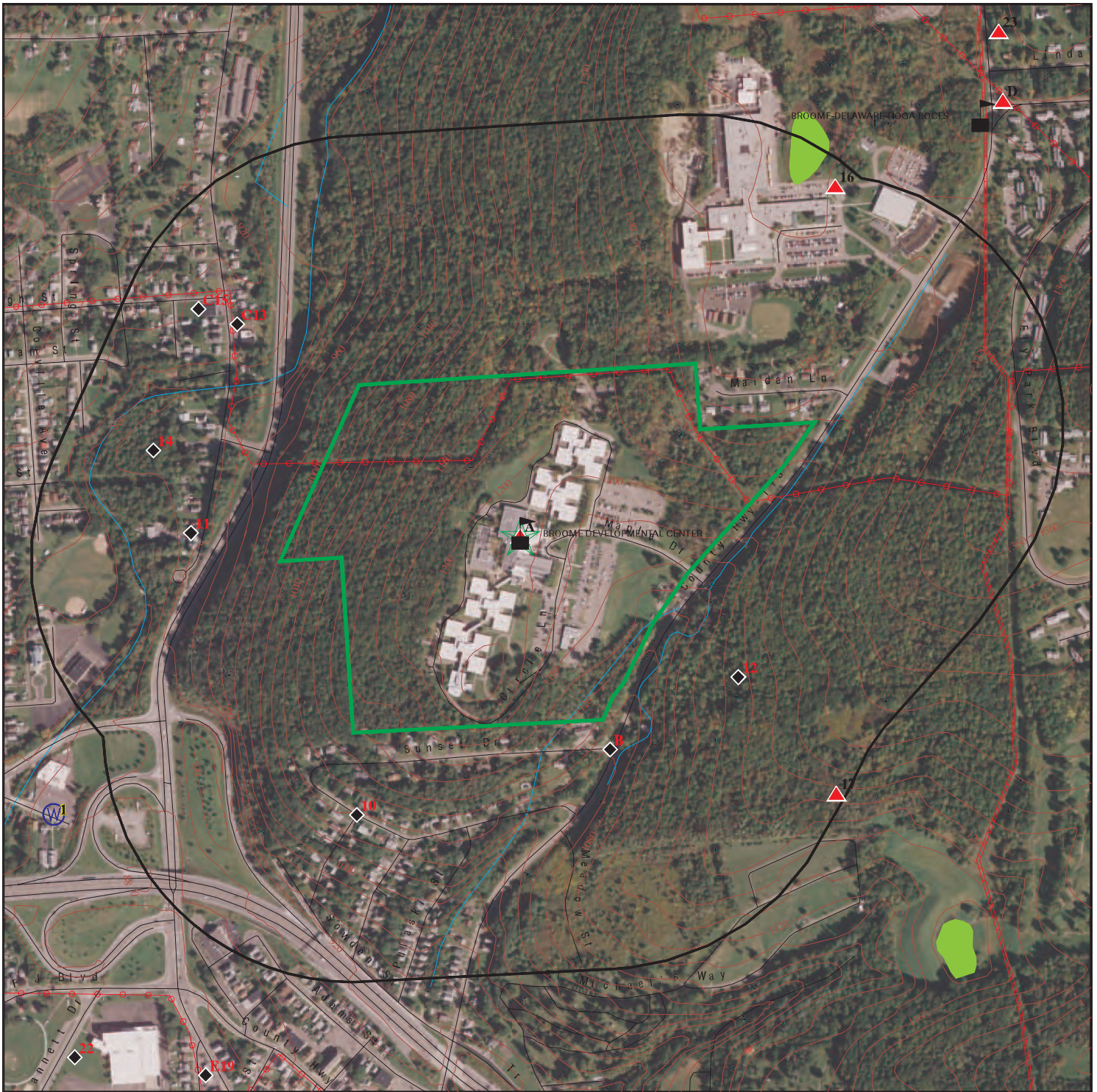
State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Parking Lot Reconstruction
 ADDRESS: 249 Glenwood Road
 Binghamton NY 13905
 LAT/LONG: 42.124961 / 75.939143

CLIENT: Atlantic Testing Laboratories
 CONTACT: Jordan Stachowiak
 INQUIRY #: 7392919.2s
 DATE: July 18, 2023 1:24 pm

DETAIL MAP - 7392919.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Pipelines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands



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SITE NAME: Parking Lot Reconstruction
 ADDRESS: 249 Glenwood Road
 Binghamton NY 13905
 LAT/LONG: 42.124961 / 75.939143

CLIENT: Atlantic Testing Laboratories
 CONTACT: Jordan Stachowiak
 INQUIRY #: 7392919.2s
 DATE: July 18, 2023 1:26 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Lists of Federal NPL (Superfund) sites</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Lists of Federal Delisted NPL sites</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Lists of Federal sites subject to CERCLA removals and CERCLA orders</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Lists of Federal CERCLA sites with NFRAP</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Lists of Federal RCRA facilities undergoing Corrective Action</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Lists of Federal RCRA TSD facilities</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Lists of Federal RCRA generators</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		1	0	NR	NR	NR	1
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>Lists of state- and tribal hazardous waste facilities</i>								
NY SHWS	1.000		0	0	0	1	NR	1
<i>Lists of state and tribal landfills and solid waste disposal facilities</i>								
NY SWF/LF	0.500		0	3	1	NR	NR	4
<i>Lists of state and tribal leaking storage tanks</i>								
INDIAN LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NY LTANKS	0.500	1	3	1	4	NR	NR	9
NY HIST LTANKS	0.500		0	0	0	NR	NR	0
<i>Lists of state and tribal registered storage tanks</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0
NY UST	0.250	1	0	1	NR	NR	NR	2
NY CBS UST	0.250		0	0	NR	NR	NR	0
NY MOSF UST	0.500		0	0	0	NR	NR	0
NY MOSF	0.500		0	0	0	NR	NR	0
NY CBS	0.250		0	0	NR	NR	NR	0
NY AST	0.250	1	0	0	NR	NR	NR	1
NY CBS AST	0.250		0	0	NR	NR	NR	0
NY MOSF AST	0.500		0	0	0	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
NY TANKS	0.250		0	0	NR	NR	NR	0
<i>State and tribal institutional control / engineering control registries</i>								
NY RES DECL	0.125		0	NR	NR	NR	NR	0
NY ENG CONTROLS	0.500		0	0	1	NR	NR	1
NY INST CONTROL	0.500		0	0	1	NR	NR	1
<i>Lists of state and tribal voluntary cleanup sites</i>								
NY VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<i>Lists of state and tribal brownfield sites</i>								
NY BROWNFIELDS	0.500		0	0	1	NR	NR	1
NY ERP	0.500		0	0	0	NR	NR	0
<u>ADDITIONAL ENVIRONMENTAL RECORDS</u>								
<i>Local Brownfield lists</i>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Landfill / Solid Waste Disposal Sites</i>								
NY SWRCY	0.500		0	0	0	NR	NR	0
NY SWTIRE	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Hazardous waste / Contaminated Sites</i>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
NY DEL SHWS	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
<i>Local Lists of Registered Storage Tanks</i>								
NY HIST UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NY HIST AST	TP		NR	NR	NR	NR	NR	0
Local Land Records								
NY LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
NY Spills	0.125	1	2	NR	NR	NR	NR	3
NY Hist Spills	0.125		0	NR	NR	NR	NR	0
NY SPILLS 90	0.125		0	NR	NR	NR	NR	0
NY SPILLS 80	0.125		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP	1	NR	NR	NR	NR	NR	1
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP	1	NR	NR	NR	NR	NR	1
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
ECHO	TP	1	NR	NR	NR	NR	NR	1
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1
Target 249 GLENWOOD ROAD
Property BINGHAMTON, NY 13905

NY COOLING TOWERS S121995555
N/A

Site 1 of 7 in cluster A

Actual:
1206 ft.

COOLING TOWERS:
Name: Not reported
Address: 249 GLENWOOD ROAD
City,State,Zip: BINGHAMTON, NY 13905
Equipment Unique ID: 600
Equipment Borough: Not reported
Intended Use: Air Conditioning
Manufacturer: Baltimore Air Coil
Model: 33455A
Cooling Capacity: 691
Cooling Capacity Unit: Tonnage
Commissioned Date: 04/30/2002
Inspection Date: 05/16/2017
Date of Bacteriological Collection: 05/18/2017
Date of Legionella Collection: 05/18/2017
Last Legionella Result > 1,000 CFU/mL: lt20
Last Sampled Days: Not reported
Reg Compliant: Not reported
Last Update Days: Not reported
CT Status: Not reported
Equipment Tower Operation Duration: Not reported
Latitude: 42.123524
Longitude: -75.936424

A2
Target 249 GLENWOOD ROAD
Property BINGHAMTON, NY 13905

NY COOLING TOWERS S121995545
N/A

Site 2 of 7 in cluster A

Actual:
1206 ft.

COOLING TOWERS:
Name: Not reported
Address: 249 GLENWOOD ROAD
City,State,Zip: BINGHAMTON, NY 13905
Equipment Unique ID: 599
Equipment Borough: Not reported
Intended Use: Air Conditioning
Manufacturer: Baltimore Air Coil
Model: 33455A
Cooling Capacity: 691
Cooling Capacity Unit: Tonnage
Commissioned Date: 04/30/2002
Inspection Date: 11/10/2016
Date of Bacteriological Collection: 11/01/2016
Date of Legionella Collection: 06/16/2016
Last Legionella Result > 1,000 CFU/mL: lt20
Last Sampled Days: Not reported
Reg Compliant: Not reported
Last Update Days: Not reported
CT Status: Not reported
Equipment Tower Operation Duration: Not reported
Latitude: 42.123524
Longitude: -75.936424

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A3 **BROOME DEVELOPMENT CENTER**
Target **249 GLENWOOD ROAD**
Property **BINGHAMTON, NY 13905**

US AIRS **1007788549**
FINDS **N/A**
ECHO

Site 3 of 7 in cluster A

Actual:
1206 ft.

US AIRS (AFS):
Region Code: 02
County Code: NY007
Programmatic ID: AIR NY0000007030200163
Facility Registry ID: 110019510331
D and B Number: Not reported
Facility Site Name: BROOME DEVELOPMENT CENTER
Primary SIC Code: 8099
NAICS Code: 999999
Default Air Classification Code: SMI
Facility Type of Ownership Code: STF
Air CMS Category Code: Not reported
HPV Status: Not reported

US AIRS (AFS):
Region Code: 02
Programmatic ID: AIR NY0000007030200163
Facility Registry ID: 110019510331
Air Operating Status Code: OPR
Default Air Classification Code: SMI

Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1981-01-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

FINDS:

Registry ID: 110019510331

[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

AIR SYNTHETIC MINOR

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

FIS (New York - Facility Information System) is New York's Department

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

BROOME DEVELOPMENT CENTER (Continued)

1007788549

of Environmental Conservation (DEC) information system for tracking environmental facility information found across the State. ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1007788549
 Registry ID: 110019510331
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110019510331>
 Name: BROOME DEVELOPMENT CENTER
 Address: 249 GLENWOOD ROAD
 City,State,Zip: BINGHAMTON, NY 13905

**A4
 Target
 Property**

**BROOME DDSO ACCESS - PARKING LOTS
 249 GLENWOOD RD
 BINGHAMTON, NY 13901**

**NY LTANKS
 NY Spills
 NY SPDES
 NY COOLING TOWERS**

**S103571645
 N/A**

Site 4 of 7 in cluster A

**Actual:
 1206 ft.**

LTANKS:
 Name: SUMP TEST FAILURE, BROOME DEVELOPMENTAL CENTER
 Address: 249 GLENWOOD RD
 City,State,Zip: BINGHAMTON, NY 13905
 Spill Number/Closed Date: 1908227 / 2020-07-09
 Facility ID: 1908227
 Site ID: 598400
 Spill Date: 2019-11-15
 Spill Cause: Tank Test Failure
 Spill Source: Institutional, Educational, Gov., Other
 Spill Class: C3
 Cleanup Ceased: Not reported
 SWIS: 0422
 Investigator: JCKANE
 Referred To: Not reported
 Reported to Dept: 2019-11-15
 CID: Not reported
 Water Affected: Not reported
 Spill Notifier: Other
 Last Inspection: Not reported
 Recommended Penalty: False
 Meets Standard: False
 UST Involvement: False
 Remediation Phase: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DDSO ACCESS - PARKING LOTS (Continued)

S103571645

Date Entered In Computer: 2019-11-15
Spill Record Last Update: 2020-07-09
Spiller Name: Teman Purdy
Spiller Company: Broome Developmental Center
Spiller Address: 249 Glenwood Road
Spiller County: 999
Spiller Contact: KEMAN PURTY
Spiller Phone: (607) 222-7085
Spiller Extention: Not reported
DEC Region: 7
DER Facility ID: 547168
DEC Memo: "11/15/2019 - Feng - Duty Desk. Spoke to Keman Purty. The address is 249 Glenwood Rd, Binghamton, NY, 13905, Broome County. Reassigned the spill to Region 7. OPWDD, Teman Purdy, will have sumps monitored manually and inform DEC when additional work is to be performed to correct the failed sump. -John C. Kane 11/18/2019 at 0926 hrs Passing dispenser sump hydro test submitted to DEC. NFA. -John C. Kane 07/09/2020 at 1412 hrs"

Remarks: "sump test failure"

All Materials:

Site ID: 598400
Operable Unit ID: 1345911
Operable Unit: 01
Material ID: 2356128
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: Not reported
Units: Not reported
Recovered: Not reported
Resource Affected: Not reported
Oxygenate: Not reported

SPILLS:

Name: BROOME DEVELOPEMENTAL CENTER
Address: 249 GLENWOOD ROAD
City,State,Zip: BINGHAMTON, NY
Spill Number/Closed Date: 0711000 / 2008-02-12
Facility ID: 0711000
Facility Type: ER
DER Facility ID: 342004
Site ID: 392405
DEC Region: 7
Spill Cause: Other
Spill Class: E6
SWIS: 0430
Spill Date: 2008-01-17
Investigator: jeokesso
Referred To: Not reported
Reported to Dept: 2008-01-17
CID: 444
Water Affected: Not reported
Spill Source: Commercial/Industrial
Spill Notifier: Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DDSO ACCESS - PARKING LOTS (Continued)

S103571645

Cleanup Ceased: Not reported
Cleanup Meets Std: True
Last Inspection: Not reported
Recommended Penalty: False
UST Trust: Not reported
Remediation Phase: 0
Date Entered In Computer: 2008-01-17
Spill Record Last Update: 2008-02-12
Spiller Name: MARGE HENSON
Spiller Company: BROOME DEVELOPEMENTAL CENTER
Spiller Address: 249 GLENWOOD ROAD
Spiller Company: 999
Contact Name: MARGE HENSON
DEC Memo: "Spoke with Marge Henson. New employee was sticking tank incorrectly. Wanted to report problem. Tanks are not leaking. Told her that if inventory records are conconced, noted and no leak has occurred that a spill is not required to be reported."
Remarks: "SOMEONE NEW HAS BEEN READING TANKS AND HAS BEEN WRONG: CALLER BELIEVES THAT THEY ARE READING STICK WRONG:"

All Materials:

Site ID: 392405
Operable Unit ID: 1149411
Operable Unit: 01
Material ID: 2139936
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Resource Affected: Soil
Oxygenate: Not reported

Site ID: 392405
Operable Unit ID: 1149411
Operable Unit: 01
Material ID: 2139937
Material Code: 0008
Material Name: diesel
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Resource Affected: Soil
Oxygenate: Not reported

Name: BROOME DEVELOPMENT CENTER
Address: 249 GLENWOOD RD
City,State,Zip: BINGHAMTON, NY
Spill Number/Closed Date: 1000015 / 2010-04-01
Facility ID: 1000015
Facility Type: ER
DER Facility ID: 375824

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DDSO ACCESS - PARKING LOTS (Continued)

S103571645

Site ID: 426933
DEC Region: 7
Spill Cause: Unknown
Spill Class: D3
SWIS: 0430
Spill Date: 2010-04-01
Investigator: jeokesso
Referred To: Not reported
Reported to Dept: 2010-04-01
CID: Not reported
Water Affected: Not reported
Spill Source: Institutional, Educational, Gov., Other
Spill Notifier: Other
Cleanup Ceased: Not reported
Cleanup Meets Std: False
Last Inspection: 2010-04-01
Recommended Penalty: False
UST Trust: False
Remediation Phase: 0
Date Entered In Computer: 2010-04-01
Spill Record Last Update: 2010-04-01
Spiller Name: Not reported
Spiller Company: BROOME DEVELOPMENT CENTER
Spiller Address: Not reported
Spiller Company: 999
Contact Name: MIKE HARUK
DEC Memo: "4/1/2010 - Liquid/product removed from spill bucket. K.Kemp on site.jeo."
Remarks: "spill to sump area/clean up underway"

All Materials:

Site ID: 426933
Operable Unit ID: 1182606
Operable Unit: 01
Material ID: 2176797
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: 1.00
Units: G
Recovered: Not reported
Resource Affected: Not reported
Oxygenate: Not reported

Name: BROOME DEVELOPMENT CENTER
Address: 249 GLENWOOD RD
City,State,Zip: BINGHAMTON, NY
Spill Number/Closed Date: 9712275 / 1998-06-15
Facility ID: 9712275
Facility Type: ER
DER Facility ID: 95656
Site ID: 108863
DEC Region: 7
Spill Cause: Other
Spill Class: C3
SWIS: 0422

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DDSO ACCESS - PARKING LOTS (Continued)

S103571645

Spill Date: 1998-02-03
Investigator: PETERSON
Referred To: SHORT TERM
Reported to Dept: 1998-02-03
CID: 369
Water Affected: Not reported
Spill Source: Institutional, Educational, Gov., Other
Spill Notifier: Other
Cleanup Ceased: Not reported
Cleanup Meets Std: True
Last Inspection: Not reported
Recommended Penalty: False
UST Trust: False
Remediation Phase: 0
Date Entered In Computer: 1998-02-03
Spill Record Last Update: 1998-06-15
Spiller Name: RONALD SICKLER
Spiller Company: BROOME DEVELOPMENT CENTER
Spiller Address: 249 GLENWOOD RD
Spiller Company: 001
Contact Name: RONALD SICKLER
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was GPS "
Remarks: "CONTAMINATED SOIL ENCOUNTERED WHILE U/G TANK EXCAVATION BEING DONE."
All Materials:
Site ID: 108863
Operable Unit ID: 1055032
Operable Unit: 01
Material ID: 326894
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Resource Affected: Soil
Oxygenate: Not reported

SPDES:

Name: BROOME DDSO ACCESS - PARKING LOTS
Address: 249 GLENWOOD RD
City,State,Zip: BINGHAMTON, NY 13901-1603
Permit Number: NYR11J221
State-Region: 7
Expiration Date: Not reported
Current Major Minor Status: Not reported
Primary Facility SIC Code: Not reported
State Water Body Name: Little Choconut Creek
Limit Set Status Flag: Not reported
Total Actual Average Flow(MGD): Not reported
Total App Design Flow(MGD): Not reported
UDF1: Not reported
Lat/Long: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DDSO ACCESS - PARKING LOTS (Continued)

S103571645

DMR Cognizant Official: Not reported
UDF2: Not reported
UDF3: Not reported
FIPS County Code: Not reported

Non-Gov Permit Affiliation Type Desc: Not reported
Non-Gov Permit Org Formal Name: Not reported
Non-Gov Permit Street Address: Not reported
Non-Gov Permit Supplemental Location: Not reported
Non-Gov Permit City: Not reported
Non-Gov Permit State Code: Not reported
Non-Gov Permit Zip Code: Not reported
Non-Gov Facility Affiliation Type Desc: Not reported
Non-Gov Facility Org Formal Name: Not reported
Non-Gov Facility Street Address: Not reported
Non-Gov Facility Supplemental Location: Not reported
Non-Gov Facility City: Not reported
Non-Gov Facility State Code: Not reported
Non-Gov Facility Zip Code: Not reported
State Water Body: Not reported
Region Permit Processed: Not reported
Dow Discharge Class Code: Not reported
SPDES Class Description: Not reported
Affiliation Type Description: Not reported
Name: Not reported
Contacts Title: Not reported
Contacts Email: Not reported
NOI Submission Date: Not reported

COOLING TOWERS:

Name: Not reported
Address: 249 GLENWOOD RD
City,State,Zip: BINGHAMTON, NY 13905
Equipment Unique ID: 15686
Equipment Borough: Not reported
Intended Use: Not reported
Manufacturer: Not reported
Model: Not reported
Cooling Capacity: Not reported
Cooling Capacity Unit: Not reported
Commissioned Date: Not reported
Inspection Date: Not reported
Date of Bacteriological Collection: Not reported
Date of Legionella Collection: 10/13/2022
Last Legionella Result > 1,000 CFU/mL: lt20
Last Sampled Days: Not reported
Reg Compliant: Not reported
Last Update Days: Not reported
CT Status: Not reported
Equipment Tower Operation Duration: Not reported
Latitude: 42.12450312
Longitude: -75.93880636

Name: Not reported
Address: 249 GLENWOOD RD
City,State,Zip: BINGHAMTON, NY 13905
Equipment Unique ID: 15687
Equipment Borough: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DDSO ACCESS - PARKING LOTS (Continued)

S103571645

Intended Use: Not reported
Manufacturer: Not reported
Model: Not reported
Cooling Capacity: Not reported
Cooling Capacity Unit: Not reported
Commissioned Date: Not reported
Inspection Date: Not reported
Date of Bacteriological Collection: Not reported
Date of Legionella Collection: 10/01/2022
Last Legionella Result > 1,000 CFU/mL: lt20
Last Sampled Days: Not reported
Reg Compliant: Not reported
Last Update Days: Not reported
CT Status: Not reported
Equipment Tower Operation Duration: Not reported
Latitude: 42.12450312
Longitude: -75.93880636

**A5
Target
Property**

**BROOME COUNTY DEVELOPMENT CENTER
249 GLENWOOD ROAD
BINGHAMTON, NY 13905**

**ICIS 1010347836
N/A**

Site 5 of 7 in cluster A

**Actual:
1206 ft.**

ICIS:
Enforcement Action ID: 02-2008-7908
FRS ID: 110019510331
Action Name: Broome Development Center
Facility Name: BROOME COUNTY DEVELOPMENT CENTER
Facility Address: 249 GLENWOOD ROAD
BINGHAMTON, NY 13905
Enforcement Action Type: RCRA 9006 AO For Comp And/Or Pen (UST) - UST Expedited Settlement Program
Facility County: BROOME
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 9006E
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: +42.124167
Longitude in Decimal Degrees: -75.938611
Permit Type Desc: Not reported
Program System Acronym: 600022618
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

**A6
Target
Property**

**BROOME DEVELOPMENTAL CENTER
249 GLENWOOD RD
BINGHAMTON, NY 13905**

**NY UST U003313516
NY AST N/A**

Site 6 of 7 in cluster A

**Actual:
1206 ft.**

UST:
Name: BROOME DEVELOPMENTAL CENTER
Address: 249 GLENWOOD RD
City,State,Zip: BINGHAMTON, NY 13905

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

Id/Status: 7-424862 / Active
Program Type: PBS
Region: STATE
DEC Region: 7
Expiration Date: 09/19/2027
UTM X: 422401.67803
UTM Y: 4664026.22676
Site Type: Hospital/Nursing Home/Health Care

Affiliation Records:

Site Id: 45741
Affiliation Type: Emergency Contact
Company Name: OPWDDN BROOME DDSO & DEVELOPMENTAL CENTER
Contact Type: Not reported
Contact Name: TODD HARRIS
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 999
Phone: (607) 760-9062
EMail: Not reported
Fax Number: Not reported
Modified By: KCKEMP
Date Last Modified: 2018-07-25

Site Id: 45741
Affiliation Type: Facility Operator
Company Name: BROOME DEVELOPMENTAL CENTER
Contact Type: Not reported
Contact Name: TODD HARRIS
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 001
Phone: (607) 240-4699
EMail: Not reported
Fax Number: Not reported
Modified By: KCKEMP
Date Last Modified: 2018-07-25

Site Id: 45741
Affiliation Type: Facility Owner
Company Name: OPWDD BROOME DDSO & DEVELOPMENTAL CENTER
Contact Type: HAC
Contact Name: TEMAN PURDY
Address1: PO BOX 2117
Address2: Not reported
City: ALBANY
State: NY
Zip Code: 12220
Country Code: 001
Phone: (607) 770-0211
EMail: Not reported
Fax Number: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

Modified By: KCKEMP
Date Last Modified: 2022-06-29

Site Id: 45741
Affiliation Type: Mail Contact
Company Name: BROOME DEVELOPMENTAL CENTER
Contact Type: Not reported
Contact Name: TEMAN PURDY
Address1: 249 GLENWOOD RD
Address2: Not reported
City: BINGHAMTON
State: NY
Zip Code: 13905-1695
Country Code: 001
Phone: (607) 240-4605
EMail: TEMAN.P.PURDY@OPWDD.NY.GOV
Fax Number: Not reported
Modified By: KCKEMP
Date Last Modified: 2022-05-10

Tank Info:

Tank Number: 001
Tank ID: 131709
Tank Status: Closed Prior to Micro Conversion, 03/91
Material Name: Closed Prior to Micro Conversion, 03/91
Capacity Gallons: 30000
Install Date: 12/01/1972
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0001
Common Name of Substance: #2 Fuel Oil (On-Site Consumption)

Tightness Test Method: 03
Date Test: 03/01/1988
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
A00 - Tank Internal Protection - None
I04 - Overfill - Product Level Gauge (A/G)
D01 - Pipe Type - Steel/Carbon Steel/Iron
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
F06 - Pipe External Protection - Wrapped
H00 - Tank Leak Detection - None

Tank Number: 002
Tank ID: 131710
Tank Status: Closed - Removed

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

Material Name: Closed - Removed
Capacity Gallons: 30000
Install Date: 12/01/1972
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0001
Common Name of Substance: #2 Fuel Oil (On-Site Consumption)

Tightness Test Method: 21
Date Test: 08/01/2003
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

I04 - Overfill - Product Level Gauge (A/G)
A00 - Tank Internal Protection - None
D01 - Pipe Type - Steel/Carbon Steel/Iron
B01 - Tank External Protection - Painted/Asphalt Coating
F06 - Pipe External Protection - Wrapped
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
C02 - Pipe Location - Underground/On-ground
H00 - Tank Leak Detection - None
L09 - Piping Leak Detection - Exempt Suction Piping

Tank Number: 003
Tank ID: 131711
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 5000
Install Date: 12/01/1972
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0001
Common Name of Substance: #2 Fuel Oil (On-Site Consumption)

Tightness Test Method: 21
Date Test: 08/01/2003
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
D01 - Pipe Type - Steel/Carbon Steel/Iron
I04 - Overfill - Product Level Gauge (A/G)
F06 - Pipe External Protection - Wrapped
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

C02 - Pipe Location - Underground/On-ground
H00 - Tank Leak Detection - None
L09 - Piping Leak Detection - Exempt Suction Piping

Tank Number: 004
Tank ID: 131712
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 3000
Install Date: 12/01/1982
Date Tank Closed: 02/01/1998
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: 05
Date Test: 08/01/1995
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

D02 - Pipe Type - Galvanized Steel
A00 - Tank Internal Protection - None
I04 - Overfill - Product Level Gauge (A/G)
B01 - Tank External Protection - Painted/Asphalt Coating
J02 - Dispenser - Suction Dispenser
C02 - Pipe Location - Underground/On-ground
F06 - Pipe External Protection - Wrapped
G00 - Tank Secondary Containment - None
H00 - Tank Leak Detection - None

Tank Number: 004A
Tank ID: 138610
Tank Status: In Service
Material Name: In Service
Capacity Gallons: 6000
Install Date: 04/01/1998
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Equivalent technology
Material Code: 2712
Common Name of Substance: Gasoline/Ethanol

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: D
Modified By: KCKEMP
Last Modified: 05/10/2022

Equipment Records:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

- H05 - Tank Leak Detection - In-Tank System (ATG)
- L07 - Piping Leak Detection - Pressurized Piping Leak Detector
- G04 - Tank Secondary Containment - Double-Walled (Underground)
- J01 - Dispenser - Pressurized Dispenser
- E04 - Piping Secondary Containment - Double walled UG
- H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
- A00 - Tank Internal Protection - None
- L01 - Piping Leak Detection - Interstitial - Electronic Monitoring
- F04 - Pipe External Protection - Fiberglass
- C02 - Pipe Location - Underground/On-ground
- K01 - Spill Prevention - Catch Basin
- I02 - Overfill - High Level Alarm
- B04 - Tank External Protection - Fiberglass
- D06 - Pipe Type - Fiberglass Reinforced Plastic (FRP)

Tank Number: 005
Tank ID: 131713
Tank Status: Closed Prior to Micro Conversion, 03/91
Material Name: Closed Prior to Micro Conversion, 03/91
Capacity Gallons: 3000
Install Date: 12/01/1972
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

- B00 - Tank External Protection - None
- C00 - Pipe Location - No Piping
- D02 - Pipe Type - Galvanized Steel
- F00 - Pipe External Protection - None
- A00 - Tank Internal Protection - None
- J02 - Dispenser - Suction Dispenser
- G00 - Tank Secondary Containment - None
- H00 - Tank Leak Detection - None
- I00 - Overfill - None

Tank Number: 006
Tank ID: 131714
Tank Status: In Service
Material Name: In Service
Capacity Gallons: 3000
Install Date: 02/01/1989
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

Material Code: 0008
Common Name of Substance: Diesel

Tightness Test Method: 21
Date Test: 10/25/2006
Next Test Date: Not reported
Pipe Model: D
Modified By: KCKEMP
Last Modified: 05/10/2022

Equipment Records:

L07 - Piping Leak Detection - Pressurized Piping Leak Detector
G04 - Tank Secondary Containment - Double-Walled (Underground)
E04 - Piping Secondary Containment - Double walled UG
J01 - Dispenser - Pressurized Dispenser
B02 - Tank External Protection - Original Sacrificial Anode
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
L01 - Piping Leak Detection - Interstitial - Electronic Monitoring
F04 - Pipe External Protection - Fiberglass
C02 - Pipe Location - Underground/On-ground
K01 - Spill Prevention - Catch Basin
I02 - Overfill - High Level Alarm
D06 - Pipe Type - Fiberglass Reinforced Plastic (FRP)

Tank Number: 007
Tank ID: 180221
Tank Status: In Service
Material Name: In Service
Capacity Gallons: 30000
Install Date: 06/01/2004
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Equivalent technology
Material Code: 0001
Common Name of Substance: #2 Fuel Oil (On-Site Consumption)

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: KCKEMP
Last Modified: 05/10/2022

Equipment Records:

G04 - Tank Secondary Containment - Double-Walled (Underground)
B05 - Tank External Protection - Jacketed
E04 - Piping Secondary Containment - Double walled UG
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
A00 - Tank Internal Protection - None
F05 - Pipe External Protection - Jacketed
I04 - Overfill - Product Level Gauge (A/G)
J02 - Dispenser - Suction Dispenser
L01 - Piping Leak Detection - Interstitial - Electronic Monitoring
F04 - Pipe External Protection - Fiberglass

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

C02 - Pipe Location - Underground/On-ground
K01 - Spill Prevention - Catch Basin
I02 - Overfill - High Level Alarm
B04 - Tank External Protection - Fiberglass
D08 - Pipe Type - Equivalent Technology

AST:

Name: BROOME DEVELOPMENTAL CENTER
Address: 249 GLENWOOD RD
City,State,Zip: BINGHAMTON, NY 13905
Region: STATE
DEC Region: 7
Site Status: Active
Facility Id: 7-424862
Program Type: PBS
UTM X: 422401.67803
UTM Y: 4664026.22676
Expiration Date: 09/19/2027
Site Type: Hospital/Nursing Home/Health Care

Affiliation Records:

Site Id: 45741
Affiliation Type: Emergency Contact
Company Name: OPWDDN BROOME DDSO & DEVELOPMENTAL CENTER
Contact Type: Not reported
Contact Name: TODD HARRIS
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 999
Phone: (607) 760-9062
EMail: Not reported
Fax Number: Not reported
Modified By: KCKEMP
Date Last Modified: 2018-07-25

Site Id: 45741
Affiliation Type: Facility Operator
Company Name: BROOME DEVELOPMENTAL CENTER
Contact Type: Not reported
Contact Name: TODD HARRIS
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 001
Phone: (607) 240-4699
EMail: Not reported
Fax Number: Not reported
Modified By: KCKEMP
Date Last Modified: 2018-07-25

Site Id: 45741
Affiliation Type: Facility Owner

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

Company Name: OPWDD BROOME DDSO & DEVELOPMENTAL CENTER
Contact Type: HAC
Contact Name: TEMAN PURDY
Address1: PO BOX 2117
Address2: Not reported
City: ALBANY
State: NY
Zip Code: 12220
Country Code: 001
Phone: (607) 770-0211
EMail: Not reported
Fax Number: Not reported
Modified By: KCKEMP
Date Last Modified: 2022-06-29

Site Id: 45741
Affiliation Type: Mail Contact
Company Name: BROOME DEVELOPMENTAL CENTER
Contact Type: Not reported
Contact Name: TEMAN PURDY
Address1: 249 GLENWOOD RD
Address2: Not reported
City: BINGHAMTON
State: NY
Zip Code: 13905-1695
Country Code: 001
Phone: (607) 240-4605
EMail: TEMAN.P.PURDY@OPWDD.NY.GOV
Fax Number: Not reported
Modified By: KCKEMP
Date Last Modified: 2022-05-10

Tank Info:

Tank Number: 008
Tank Id: 233648
Material Code: 0001
Common Name of Substance: #2 Fuel Oil (On-Site Consumption)

Equipment Records:

L02 - Piping Leak Detection - Interstitial - Manual Monitoring
E01 - Piping Secondary Containment - Diking (AG only)
F02 - Pipe External Protection - Original Sacrificial Anode
G01 - Tank Secondary Containment - Diking (Aboveground)
H06 - Tank Leak Detection - Impervious Barrier/Concrete Pad (A/G)
I99 - Overfill - Other
D01 - Pipe Type - Steel/Carbon Steel/Iron
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
C01 - Pipe Location - Aboveground
J02 - Dispenser - Suction Dispenser
K01 - Spill Prevention - Catch Basin

Tank Location: Aboveground - on saddles, legs, racks, etc.... Tank bottom is elevated above grade or tank pad, allowing visual inspection.
Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

Pipe Model: Not reported
Install Date: 03/01/2006
Capacity Gallons: 100
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: KCKEMP
Last Modified: 05/10/2022
Material Name: #2 fuel oil (on-site consumption)

Tank Number: 009
Tank Id: 233649
Material Code: 0001
Common Name of Substance: #2 Fuel Oil (On-Site Consumption)

Equipment Records:

L02 - Piping Leak Detection - Interstitial - Manual Monitoring
E01 - Piping Secondary Containment - Diking (AG only)
F02 - Pipe External Protection - Original Sacrificial Anode
G01 - Tank Secondary Containment - Diking (Aboveground)
H06 - Tank Leak Detection - Impervious Barrier/Concrete Pad (A/G)
I99 - Overfill - Other
D01 - Pipe Type - Steel/Carbon Steel/Iron
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
C01 - Pipe Location - Aboveground
J02 - Dispenser - Suction Dispenser
K01 - Spill Prevention - Catch Basin

Tank Location: Aboveground - on saddles, legs, racks, etc.... Tank bottom is elevated above grade or tank pad, allowing visual inspection.

Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 09/01/2007
Capacity Gallons: 200
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: KCKEMP
Last Modified: 05/10/2022
Material Name: #2 fuel oil (on-site consumption)

Tank Number: 010
Tank Id: 233650
Material Code: 0001
Common Name of Substance: #2 Fuel Oil (On-Site Consumption)

Equipment Records:

F99 - Pipe External Protection - Other
H06 - Tank Leak Detection - Impervious Barrier/Concrete Pad (A/G)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

D99 - Pipe Type - Other
E04 - Piping Secondary Containment - Double walled UG
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
G09 - Tank Secondary Containment - Modified Double-Walled (Aboveground)
I03 - Overfill - Automatic Shut-Off
C03 - Pipe Location - Aboveground/Underground Combination
J02 - Dispenser - Suction Dispenser
L01 - Piping Leak Detection - Interstitial - Electronic Monitoring
K01 - Spill Prevention - Catch Basin

Tank Location: Aboveground - on saddles, legs, racks, etc.... Tank bottom is elevated above grade or tank pad, allowing visual inspection.

Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 09/01/2007
Capacity Gallons: 600
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: KCKEMP
Last Modified: 05/10/2022
Material Name: #2 fuel oil (on-site consumption)

Tank Number: 011
Tank Id: 245422
Material Code: 0015
Common Name of Substance: Motor Oil

Equipment Records:

L02 - Piping Leak Detection - Interstitial - Manual Monitoring
H06 - Tank Leak Detection - Impervious Barrier/Concrete Pad (A/G)
E06 - Piping Secondary Containment - Remote Impounding Area
D11 - Pipe Type - Flexible Piping
F00 - Pipe External Protection - None
G10 - Tank Secondary Containment - Impervious Underlayment
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
I04 - Overfill - Product Level Gauge (A/G)
C01 - Pipe Location - Aboveground
J02 - Dispenser - Suction Dispenser
K01 - Spill Prevention - Catch Basin
G06 - Tank Secondary Containment - Remote Impounding Area

Tank Location: Aboveground - on saddles, legs, racks, etc.... Tank bottom is elevated above grade or tank pad, allowing visual inspection.

Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 04/01/2011
Capacity Gallons: 60
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

Date Tank Closed: Not reported
Register: True
Modified By: KCKEMP
Last Modified: 05/10/2022
Material Name: motor oil

Tank Number: 012
Tank Id: 245423
Material Code: 0015
Common Name of Substance: Motor Oil

Equipment Records:

L02 - Piping Leak Detection - Interstitial - Manual Monitoring
E06 - Piping Secondary Containment - Remote Impounding Area
H06 - Tank Leak Detection - Impervious Barrier/Concrete Pad (A/G)
D11 - Pipe Type - Flexible Piping
F00 - Pipe External Protection - None
I04 - Overfill - Product Level Gauge (A/G)
C01 - Pipe Location - Aboveground
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
G10 - Tank Secondary Containment - Impervious Underlayment
J02 - Dispenser - Suction Dispenser
K01 - Spill Prevention - Catch Basin
G06 - Tank Secondary Containment - Remote Impounding Area

Tank Location: Aboveground - on saddles, legs, racks, etc.... Tank bottom is elevated above grade or tank pad, allowing visual inspection.

Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 04/01/2011
Capacity Gallons: 60
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: KCKEMP
Last Modified: 05/10/2022
Material Name: motor oil

Tank Number: 013
Tank Id: 245424
Material Code: 0015
Common Name of Substance: Motor Oil

Equipment Records:

L02 - Piping Leak Detection - Interstitial - Manual Monitoring
E06 - Piping Secondary Containment - Remote Impounding Area
H06 - Tank Leak Detection - Impervious Barrier/Concrete Pad (A/G)
D11 - Pipe Type - Flexible Piping
F00 - Pipe External Protection - None
G10 - Tank Secondary Containment - Impervious Underlayment
A00 - Tank Internal Protection - None

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

Tank Location: B01 - Tank External Protection - Painted/Asphalt Coating
I04 - Overfill - Product Level Gauge (A/G)
C01 - Pipe Location - Aboveground
J02 - Dispenser - Suction Dispenser
K01 - Spill Prevention - Catch Basin
G06 - Tank Secondary Containment - Remote Impounding Area
Aboveground - on saddles, legs, racks, etc.... Tank bottom is elevated above grade or tank pad, allowing visual inspection.

Tank Type: Steel/Carbon Steel/Iron
Tank Status: In Service
Pipe Model: Not reported
Install Date: 04/01/2011
Capacity Gallons: 60
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: Not reported
Register: True
Modified By: KCKEMP
Last Modified: 05/10/2022
Material Name: motor oil

Tank Number: 07
Tank Id: 138325
Material Code: 0022
Common Name of Substance: Waste Oil/Used Oil

Equipment Records:

H99 - Tank Leak Detection - Other
D00 - Pipe Type - No Piping
F00 - Pipe External Protection - None
C00 - Pipe Location - No Piping
I04 - Overfill - Product Level Gauge (A/G)
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser

Tank Location: Aboveground - on saddles, legs, racks, etc.... Tank bottom is elevated above grade or tank pad, allowing visual inspection.

Tank Type: Steel/Carbon Steel/Iron
Tank Status: Closed - Removed
Pipe Model: Not reported
Install Date: 08/01/1996
Capacity Gallons: 275
Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Date Tank Closed: 05/01/1998
Register: True
Modified By: MJGRIFFI
Last Modified: 05/09/2022
Material Name: waste oil/used oil

Tank Number: 08
Tank Id: 138326

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

U003313516

Material Code: 0008
Common Name of Substance: Diesel

Equipment Records:

H99 - Tank Leak Detection - Other
D00 - Pipe Type - No Piping
F00 - Pipe External Protection - None
C00 - Pipe Location - No Piping
A00 - Tank Internal Protection - None
B01 - Tank External Protection - Painted/Asphalt Coating
I04 - Overfill - Product Level Gauge (A/G)
G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser

Tank Location: Aboveground - on saddles, legs, racks, etc.... Tank bottom is elevated above grade or tank pad, allowing visual inspection.

Tank Type: Steel/Carbon Steel/Iron

Tank Status: Closed - Removed

Pipe Model: Not reported

Install Date: 08/01/1996

Capacity Gallons: 275

Tightness Test Method: NN

Date Test: Not reported

Next Test Date: Not reported

Date Tank Closed: 05/01/1998

Register: True

Modified By: MJGRIFFI

Last Modified: 05/09/2022

Material Name: diesel

A7

**SOUTH PIER TRUCKING
GLENWOOD RD. BR. DEV. CTR
BINGHAMTON, NY**

**NY LTANKS S102677907
N/A**

< 1/8
1 ft.

Site 7 of 7 in cluster A

**Relative:
Higher**

LTANKS:

**Actual:
1206 ft.**

Name: SOUTH PIER TRUCKING
Address: GLENWOOD RD. BR. DEV. CTR
City,State,Zip: BINGHAMTON, NY
Spill Number/Closed Date: 9102106 / 1991-06-05
Facility ID: 9102106
Site ID: 280504
Spill Date: 1991-05-22
Spill Cause: Tank Overfill
Spill Source: Tank Truck
Spill Class: Not reported
Cleanup Ceased: 1991-05-22
SWIS: 0422
Investigator: JEOKESSO
Referred To: LONG TERM
Reported to Dept: 1991-05-22
CID: Not reported
Water Affected: Not reported
Spill Notifier: Responsible Party
Last Inspection: Not reported
Recommended Penalty: False
Meets Standard: True

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SOUTH PIER TRUCKING (Continued)

S102677907

UST Involvement: False
 Remediation Phase: 0
 Date Entered In Computer: Not reported
 Spill Record Last Update: 2003-12-02
 Spiller Name: Not reported
 Spiller Company: SOUTH PIER TRUCKING
 Spiller Address: CONTRACT HAULER FOR AGWAY
 Spiller County: 001
 Spiller Contact: Not reported
 Spiller Phone: Not reported
 Spiller Extention: Not reported
 DEC Region: 7
 DER Facility ID: 227759
 DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was JOA "
 Remarks: "TANK OVERFILLED. CONTAINED ON BLACKTOP. CLEANED UP WITH SORBENTS. NO FURTHER ACTION."

All Materials:
 Site ID: 280504
 Operable Unit ID: 953196
 Operable Unit: 01
 Material ID: 561994
 Material Code: 0009
 Material Name: gasoline
 Case No.: Not reported
 Material FA: Petroleum
 Quantity: 2.00
 Units: G
 Recovered: 2.00
 Resource Affected: Soil
 Oxygenate: Not reported

B8
SSE
 < 1/8
 0.031 mi.
 162 ft.

BROOME DEVELOPMENTAL CENTER
241 GLENWOOD RD
BINGHAMTON, NY 13901
 Site 1 of 2 in cluster B

RCRA-VSQG 1000334586
NY LTANKS NYD982737751
NY MANIFEST
NJ MANIFEST

Relative:
Lower
Actual:
1062 ft.

RCRA Listings:
 Date Form Received by Agency: 20070101
 Handler Name: Broome Developmental Center
 Handler Address: 241 GLENWOOD RD
 Handler City,State,Zip: BINGHAMTON, NY 13901
 EPA ID: NYD982737751
 Contact Name: Not reported
 Contact Address: GLENWOOD RD
 Contact City,State,Zip: BINGHAMTON, NY 13901
 Contact Telephone: Not reported
 Contact Fax: Not reported
 Contact Email: Not reported
 Contact Title: Not reported
 EPA Region: 02
 Land Type: Not reported
 Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator
 Non-Notifier: Not reported
 Biennial Report Cycle: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

1000334586

Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Ny
State District:	NYSDEC R7
Mailing Address:	GLENWOOD RD
Mailing City,State,Zip:	BINGHAMTON, NY 13901
Owner Name:	Omrdd
Owner Type:	State
Operator Name:	Omrdd
Operator Type:	State
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20150414
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D000
Waste Description:	Not Defined
Waste Code:	X002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

1000334586

Waste Description: Not Defined

Handler - Owner Operator:

Owner/Operator Indicator: Owner
Owner/Operator Name: OMRDD
Legal Status: State
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: NOT REQUIRED
Owner/Operator City,State,Zip: NOT REQUIRED, WY 99999
Owner/Operator Telephone: 212-555-1212
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: OMRDD
Legal Status: State
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: NOT REQUIRED
Owner/Operator City,State,Zip: NOT REQUIRED, WY 99999
Owner/Operator Telephone: 212-555-1212
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: OMRDD
Legal Status: State
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: NOT REQUIRED
Owner/Operator City,State,Zip: NOT REQUIRED, WY 99999
Owner/Operator Telephone: 212-555-1212
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:

Receive Date: 19990708
Handler Name: BROOME DEVELOPMENTAL CENTER
Federal Waste Generator Description: Not a generator, verified
State District Owner: Ny
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20060101
Handler Name: BROOME DEVELOPMENTAL CENTER
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

1000334586

State District Owner: Ny
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 20070101
Handler Name: BROOME DEVELOPMENTAL CENTER
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator
State District Owner: Ny
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

Receive Date: 19890612
Handler Name: BROOME DEVELOPMENTAL CENTER
Federal Waste Generator Description: Large Quantity Generator
State District Owner: Ny
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: No
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Codes: No NAICS Codes Found

Has the Facility Received Notices of Violations:
Found Violation: No
Agency Which Determined Violation: Not reported
Violation Short Description: Not reported
Date Violation was Determined: Not reported
Actual Return to Compliance Date: Not reported
Return to Compliance Qualifier: Not reported
Violation Responsible Agency: Not reported
Scheduled Compliance Date: Not reported
Enforcement Identifier: Not reported
Date of Enforcement Action: Not reported
Enforcement Responsible Agency: Not reported
Enforcement Docket Number: Not reported
Enforcement Attorney: Not reported
Corrective Action Component: Not reported
Appeal Initiated Date: Not reported
Appeal Resolution Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

1000334586

Disposition Status Date: Not reported
Disposition Status: Not reported
Disposition Status Description: Not reported
Consent/Final Order Sequence Number: Not reported
Consent/Final Order Respondent Name: Not reported
Consent/Final Order Lead Agency: Not reported
Enforcement Type: Not reported
Enforcement Responsible Person: Not reported
Enforcement Responsible Sub-Organization: Not reported
SEP Sequence Number: Not reported
SEP Expenditure Amount: Not reported
SEP Scheduled Completion Date: Not reported
SEP Actual Date: Not reported
SEP Defaulted Date: Not reported
SEP Type: Not reported
SEP Type Description: Not reported
Proposed Amount: Not reported
Final Monetary Amount: Not reported
Paid Amount: Not reported
Final Count: Not reported
Final Amount: Not reported

Evaluation Action Summary:

Evaluation Date: 19920616
Evaluation Responsible Agency: State
Found Violation: No
Evaluation Type Description: COMPLIANCE EVALUATION INSPECTION ON-SITE
Evaluation Responsible Person Identifier: NYJGN
Evaluation Responsible Sub-Organization: R7
Actual Return to Compliance Date: Not reported
Scheduled Compliance Date: Not reported
Date of Request: Not reported
Date Response Received: Not reported
Request Agency: Not reported
Former Citation: Not reported

LTANKS:

Name: BROOME DEVEL. CENTER
Address: GLENWOOD ROAD
City, State, Zip: BINGHAMTON, NY
Spill Number/Closed Date: 8707603 / 1988-06-10
Facility ID: 8707603
Site ID: 287390
Spill Date: 1987-12-04
Spill Cause: Tank Test Failure
Spill Source: Institutional, Educational, Gov., Other
Spill Class: Not reported
Cleanup Ceased: 1988-06-10
SWIS: 0422
Investigator: PETERSON
Referred To: LONG TERM
Reported to Dept: 1987-12-04
CID: Not reported
Water Affected: Not reported
Spill Notifier: Tank Tester

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

1000334586

Last Inspection: Not reported
Recommended Penalty: False
Meets Standard: True
UST Involvement: False
Remediation Phase: 0
Date Entered In Computer: 1988-01-05
Spill Record Last Update: 1988-06-16
Spiller Name: Not reported
Spiller Company: BROOME DEVEL. CENTER
Spiller Address: GLENWOOD ROAD
Spiller County: 001
Spiller Contact: Not reported
Spiller Phone: Not reported
Spiller Extension: Not reported
DEC Region: 7
DER Facility ID: 232811
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was GPA "
Remarks: "30,000 GAL. TANK GROSS VISIBLE LEAK. ALSO #2 30,000 GAL. TANK LEAK RATE OF .1276 GPH. WILL EXCAVATE & RETEST."

All TTF:

Facility ID: 8707603
Spill Number: 8707603
Spill Tank Test: 1532535
Site ID: 287390
Tank Number: Not reported
Tank Size: 0
Material: 0001
EPA UST: Not reported
UST: Not reported
Cause: Not reported
Source: Not reported
Test Method: 00
Test Method 2: Unknown
Leak Rate: .00
Gross Fail: Not reported
Modified By: Spills
Last Modified Date: Not reported

All Materials:

Site ID: 287390
Operable Unit ID: 911945
Operable Unit: 01
Material ID: 466542
Material Code: 0001A
Material Name: #2 fuel oil
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: Not reported
Recovered: .00
Resource Affected: Groundwater
Oxygenate: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

1000334586

NY MANIFEST:

Name: BROOME DEVELOPMENTAL CENTER
Address: 241 GLENWOOD RD
City,State,Zip: BINGHAMTON, NY 13901
Country: USA
EPA ID: NYD982737751
Facility Status: Not reported
Location Address 1: 241 GLENWOOD ROAD
Code: BP
Location Address 2: Not reported
Total Tanks: Not reported
Location City: BINGHAMTON
Location State: NY
Location Zip: 13905
Location Zip 4: Not reported

NY MANIFEST:

EPAID: NYD982737751
Mailing Name: BROOME DEVELOPMENTAL CENTER
Mailing Contact: BROOME DEVELOPMENTAL CENTER
Mailing Address 1: 241 GLENWOOD ROAD
Mailing Address 2: Not reported
Mailing City: BINGHAMTON
Mailing State: NY
Mailing Zip: 13905
Mailing Zip 4: Not reported
Mailing Country: USA
Mailing Phone: 6077700284

NY MANIFEST:

Document ID: Not reported
Manifest Status: Not reported
seq: Not reported
Year: 2018
Trans1 State ID: TXR000050930
Trans2 State ID: NJD071629976
Generator Ship Date: 04/14/2010
Trans1 Recv Date: 04/14/2010
Trans2 Recv Date: 04/20/2010
TSD Site Recv Date: 04/22/2010
Part A Recv Date: Not reported
Part B Recv Date: Not reported
Generator EPA ID: NYD982737751
Trans1 EPA ID: Not reported
Trans2 EPA ID: Not reported
TSD ID 1: KYD053348108
TSD ID 2: Not reported
Manifest Tracking Number: 002500204SKS
Import Indicator: N
Export Indicator: N
Discr Quantity Indicator: N
Discr Type Indicator: N
Discr Residue Indicator: N
Discr Partial Reject Indicator: N
Discr Full Reject Indicator: N
Manifest Ref Number: Not reported
Alt Facility RCRA ID: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

1000334586

Alt Facility Sign Date: Not reported
MGMT Method Type Code: H061
Waste Code: Not reported
Waste Code: Not reported
Waste Code: Not reported
Waste Code: Not reported
Waste Code: Not reported
Waste Code: Not reported
Quantity: 50
Units: P - Pounds
Number of Containers: 1
Container Type: DF - Fiberboard or plastic drums (glass)
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 1
Waste Code: D001
Waste Code 1_2: D008
Waste Code 1_3: D018
Waste Code 1_4: Not reported
Waste Code 1_5: Not reported
Waste Code 1_6: Not reported

NJ MANIFEST:

EPA Id: NYD982737751
Mail Address: GLENWOOD RD
Mail City/State/Zip: BINGHAMTON, NY 13901
Facility Phone: Not reported
Emergency Phone: Not reported
Contact: Not reported
Comments: Not reported
SIC Code: Not reported
County: NY007
Municipal: Not reported
Previous EPA Id: Not reported
Gen Flag: Not reported
Trans Flag: Not reported
TSD Flag: Not reported
Name Change: Not reported
Date Change: Not reported

Manifest:

Manifest Number: 001048949SKS
EPA ID: NYD982737751
Date Shipped: 03/20/2008
TSD EPA ID: NJ0000381962
Transporter EPA ID: TXR000050930
Transporter 2 EPA ID: Not reported
Transporter 3 EPA ID: Not reported
Transporter 4 EPA ID: Not reported
Transporter 5 EPA ID: Not reported
Transporter 6 EPA ID: Not reported
Transporter 7 EPA ID: Not reported
Transporter 8 EPA ID: Not reported
Transporter 9 EPA ID: Not reported
Transporter 10 EPA ID: Not reported
Date Trans1 Transported Waste: 03/20/2008
Date Trans2 Transported Waste: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BROOME DEVELOPMENTAL CENTER (Continued)

1000334586

Date Trans3 Transported Waste: Not reported
Date Trans4 Transported Waste: Not reported
Date Trans5 Transported Waste: Not reported
Date Trans6 Transported Waste: Not reported
Date Trans7 Transported Waste: Not reported
Date Trans8 Transported Waste: Not reported
Date Trans9 Transported Waste: Not reported
Date Trans10 Transported Waste: Not reported
Date TSDF Received Waste: 03/28/2008
TSDF EPA Facility Name: Not reported
QTY Units: Not reported
Transporter SEQ ID: Not reported
Transporter-1 Date: Not reported
Waste SEQ ID: Not reported
Waste Type Code 2: Not reported
Waste Type Code 3: Not reported
Waste Type Code 4: Not reported
Waste Type Code 5: Not reported
Waste Type Code 6: Not reported
Date Accepted: Not reported
Manifest Discrepancy Type: Not reported
Data Entry Number: Not reported
Was Load Rejected: BINGHAMTON, NY 13901
Reason Load Was Rejected: Not reported

Waste:
Manifest Year: Not reported
Waste Code: D011
Hand Code: H141
Quantity: 160 P

B9
SSE
< 1/8
0.031 mi.
162 ft.

BROOME DEVELOPMENTAL CTR
241 GLENWOOD RD
BINGHAMTON, NY

NY Spills S103571832
N/A

Site 2 of 2 in cluster B

Relative:
Lower
Actual:
1062 ft.

SPILLS:
Name: BROOME DEVELOPMENTAL CTR
Address: 241 GLENWOOD RD
City,State,Zip: BINGHAMTON, NY
Spill Number/Closed Date: 9713745 / 1998-03-17
Facility ID: 9713745
Facility Type: ER
DER Facility ID: 171040
Site ID: 205972
DEC Region: 7
Spill Cause: Other
Spill Class: C3
SWIS: 0422
Spill Date: 1998-03-11
Investigator: CLWARNER
Referred To: SHORT TERM
Reported to Dept: 1998-03-11
CID: 370

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

BROOME DEVELOPMENTAL CTR (Continued)

S103571832

Water Affected: Spill Source: Spill Notifier: Cleanup Ceased: Cleanup Meets Std: Last Inspection: Recommended Penalty: UST Trust: Remediation Phase: Date Entered In Computer: Spill Record Last Update: Spiller Name: Spiller Company: Spiller Address: Spiller Company: Contact Name: DEC Memo:	Not reported Commercial Vehicle Responsible Party Not reported True 1998-03-17 False False 0 1998-03-11 1998-04-23 Not reported AGWAY SHIPPERS RD 001 JOE GORMAN "Prior to Sept, 2004 data translation this spill Lead_DEC Field was CWS 3-17 BROOME DEV. CENTER HIRED GARY DYER TO EXCAVATE SOIL. SOIL WAS HAULED DIRECTLY TO THE LANDFILL. NFA"
Remarks:	"while filling tank - product came up through vent - spill to ground only - spill contained - cleanup to be scheduled"

All Materials:

Site ID: Operable Unit ID: Operable Unit: Material ID: Material Code: Material Name: Case No.: Material FA: Quantity: Units: Recovered: Resource Affected: Oxygenate:	205972 1059693 01 324747 0001A #2 fuel oil Not reported Petroleum 40.00 G .00 Soil Not reported
---	---

10
SSW
< 1/8
0.082 mi.
435 ft.

BELLAIRE & SUNSET
BELLAIRE & SUNSET
BINGHAMTON, NY

NY Spills S102165846
N/A

Relative:
Lower
Actual:
1058 ft.

SPILLS:

Name: Address: City,State,Zip: Spill Number/Closed Date: Facility ID: Facility Type: DER Facility ID: Site ID: DEC Region: Spill Cause: Spill Class: SWIS:	BELLAIRE & SUNSET BELLAIRE & SUNSET BINGHAMTON, NY 8702939 / 1988-04-29 8702939 ER 124730 146472 7 Traffic Accident Not reported 0422
---	--

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

BELLAIRE & SUNSET (Continued)

S102165846

Spill Date: 1987-07-10
 Investigator: PETERSON
 Referred To: LONG TERM
 Reported to Dept: 1987-07-10
 CID: Not reported
 Water Affected: Not reported
 Spill Source: Commercial Vehicle
 Spill Notifier: Police Department
 Cleanup Ceased: 1988-04-29
 Cleanup Meets Std: True
 Last Inspection: Not reported
 Recommended Penalty: False
 UST Trust: False
 Remediation Phase: 0
 Date Entered In Computer: 1987-07-16
 Spill Record Last Update: 1988-05-27
 Spiller Name: Not reported
 Spiller Company: NATIONAL ELECTRIC
 Spiller Address: Not reported
 Spiller Company: 001
 Contact Name: Not reported
 DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was GPA "
 Remarks: "RESPONDED TO SCENE, NO PCB'S WERE SPILLED."

All Materials:
 Site ID: 146472
 Operable Unit ID: 909458
 Operable Unit: 01
 Material ID: 469203
 Material Code: 0017A
 Material Name: PCB oil
 Case No.: Not reported
 Material FA: Petroleum
 Quantity: .00
 Units: G
 Recovered: .00
 Resource Affected: Soil
 Oxygenate: Not reported

11
 West
 < 1/8
 0.094 mi.
 495 ft.

DON WARDS SERVICE STATION
169 LOWER STELLA IRELAND
BINGHAMTON, NY 13905

EDR Hist Auto 1020548285
 N/A

Relative:
 Lower

EDR Hist Auto

Actual:
 889 ft.

Year:	Name:	Type:
1995	DON WARDS SERVICE STATION	Gasoline Service Stations
1996	DON WARDS SERVICE STATION	Gasoline Service Stations
1997	DON WARDS SERVICE STATION	Gasoline Service Stations
1998	DON WARDS SERVICE STATION	Gasoline Service Stations
1999	DON WARDS SERVICE STATION	Gasoline Service Stations
2000	DON WARDS SERVICE STATION	Gasoline Service Stations
2001	DON WARDS SERVICE STATION	Gasoline Service Stations
2002	DON WARDS SERVICE STATION	Gasoline Service Stations

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

DON WARDS SERVICE STATION (Continued)

1020548285

2003	DON WARDS SERVICE STATION	Gasoline Service Stations
2004	DON WARDS SERVICE STATION	Gasoline Service Stations
2005	DON WARDS SERVICE STATION	Gasoline Service Stations
2006	DON WARDS SERVICE STATION	General Automotive Repair Shops
2007	DON WARDS SERVICE STATION	General Automotive Repair Shops
2008	DON WARDS SERVICE STATION	General Automotive Repair Shops
2009	DON WARDS SERVICE STATION	General Automotive Repair Shops
2010	DON WARDS SERVICE STATION	General Automotive Repair Shops
2011	DON WARDS SERVICE STATION	General Automotive Repair Shops
2012	DON WARDS SERVICE STATION	General Automotive Repair Shops
2013	DON WARDS SERVICE STATION	General Automotive Repair Shops
2014	DON WARDS SERVICE STATION	General Automotive Repair Shops

12
ESE
 < 1/8
 0.101 mi.
 533 ft.

GLENWOOD ROAD
GLENWOOD ROAD
BINGHAMTON, NY

NY LTANKS **S100129448**
N/A

Relative:
Lower
Actual:
1192 ft.

LTANKS:

Name:	GLENWOOD ROAD
Address:	GLENWOOD ROAD
City,State,Zip:	BINGHAMTON, NY
Spill Number/Closed Date:	8710784 / 1988-06-10
Facility ID:	8710784
Site ID:	287391
Spill Date:	1988-03-25
Spill Cause:	Tank Test Failure
Spill Source:	Institutional, Educational, Gov., Other
Spill Class:	Not reported
Cleanup Ceased:	1988-06-10
SWIS:	0422
Investigator:	PETERSON
Referred To:	LONG TERM
Reported to Dept:	1988-03-25
CID:	Not reported
Water Affected:	Not reported
Spill Notifier:	Tank Tester
Last Inspection:	Not reported
Recommended Penalty:	False
Meets Standard:	True
UST Involvement:	False
Remediation Phase:	0
Date Entered In Computer:	Not reported
Spill Record Last Update:	2003-12-02
Spiller Name:	Not reported
Spiller Company:	BR. DEN. CNT.
Spiller Address:	GLENWOOD ROAD
Spiller County:	001
Spiller Contact:	Not reported
Spiller Phone:	Not reported
Spiller Extention:	Not reported
DEC Region:	7
DER Facility ID:	232811
DEC Memo:	"Prior to Sept, 2004 data translation this spill Lead_DEC Field was GPA 03/25/88: KEITH STRUTEVANT TOLD ME THAT HE WOULD TRY TO HAVE TANK PUMPED OUT WITHIN NEXT 24 HOURS; THEN TANK WILL BE REMOVED. "
Remarks:	"3,000 GAL. TANK. FAILED HORNER EASY CHECK AT -10.7519 GPH. & .05

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GLENWOOD ROAD (Continued)

S100129448

GPH."

All TTF:

Facility ID: 8710784
Spill Number: 8710784
Spill Tank Test: 1533498
Site ID: 287391
Tank Number: Not reported
Tank Size: 0
Material: 0001
EPA UST: Not reported
UST: Not reported
Cause: Not reported
Source: Not reported
Test Method: 00
Test Method 2: Unknown
Leak Rate: .00
Gross Fail: Not reported
Modified By: Spills
Last Modified Date: Not reported

All Materials:

Site ID: 287391
Operable Unit ID: 915570
Operable Unit: 01
Material ID: 462545
Material Code: 0001A
Material Name: #2 fuel oil
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: Not reported
Recovered: .00
Resource Affected: Groundwater
Oxygenate: Not reported

**C13
NW
1/8-1/4
0.136 mi.
720 ft.**

**JOE'S SERVICE
220 LOWER STELLA IRELAND ROAD
BINGHAMTON, NY 13905**

**NY SWF/LF S117269754
N/A**

Site 1 of 2 in cluster C

**Relative:
Lower
Actual:
911 ft.**

SWF/LF:
Name: JOE'S SERVICE
Address: 220 LOWER STELLA IRELAND ROAD
City,State,Zip: BINGHAMTON, NY 13905
Flag: INACTIVE
Region Code: 7
Phone Number: 6077973140
Owner Name: Steven Clements
Owner Type: Private
Owner Address: 757 Upper Court Street
Owner Addr2: Not reported
Owner City,St,Zip: Binghamton, NY 13904
Owner Email: Not reported
Owner Phone: Not reported
Contact Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOE'S SERVICE (Continued)

S117269754

Contact Address: Not reported
Contact Addr2: Not reported
Contact City,St,Zip: Not reported
Contact Email: Not reported
Contact Phone: Not reported
Activity Desc: Vehicle Dismantling Facility
Activity Number: [4040081]
Active: No
East Coordinate: 421917
North Coordinate: 4664292
Accuracy Code: Not reported
Regulatory Status: Not reported
Waste Type: Not reported
Authorization #: DMV 4040081
Authorization Date: Not reported
Expiration Date: Not reported
Operator Name: Not reported
Operator Type: Not reported
Laste Date: 6/15/2016

14
WNW
1/8-1/4
0.161 mi.
852 ft.

JOHNSON CITY DUMP
197 LOWER STELLA IRELAND ROAD
BINGHAMTON, NY

NY SWF/LF S126023199
NY PFAS N/A

Relative:
Lower
Actual:
883 ft.

SWF/LF:
Name: JOHNSON CITY DUMP
Address: 197 LOWER STELLA IRELAND ROAD (E BANK OF LITTLE CHOCONUT CREEK, S OF POLAND AVE, W OF LO
City,State,Zip: BINGHAMTON, NY
Flag: INACTIVE
Region Code: 7
Phone Number: Not reported
Owner Name: Ricardo A. Lombardini
Owner Type: Private
Owner Address: 201 Lower Stella Ireland Road
Owner Addr2: Not reported
Owner City,St,Zip: Binghamton, NY 13905
Owner Email: Not reported
Owner Phone: 607-237-0812
Contact Name: M Bedosky - Village of Johnson City
Contact Address: Not reported
Contact Addr2: Not reported
Contact City,St,Zip: Not reported
Contact Email: Not reported
Contact Phone: Not reported
Activity Desc: RDA
Activity Number: Not reported
Active: Not reported
East Coordinate: Not reported
North Coordinate: Not reported
Accuracy Code: 2: Fair; Perimeter unclear
Regulatory Status: Not reported
Waste Type: Not reported
Authorization #: Not reported
Authorization Date: Not reported
Expiration Date: Not reported
Operator Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOHNSON CITY DUMP (Continued)

S126023199

Operator Type: Not reported
Last Date: Not reported

PFAS 2:

Region: 7
SW ID: 7176
Name: JOHNSON CITY DUMP
Address: 197 LOWER STELLA IRELAND ROAD
City,State,Zip: BINGHAMTON, NY
Facility Name From the ILI File: Not reported
Owner Name: Ricardo A. Lombardini
Min# Concentration (ng/L): 0.42 J (groundwater)
Max Concentration (ng/L): 8.4 (groundwater)
Max# PFOS Concentration (ng/L): 8.4 (groundwater)
Max# PFOA + PFOS Concentration (ng/L): 10.5 (groundwater)
Internal field base on where data is from: Investigations
Year: 2019
Latitude: Not reported
Longitude: Not reported

**C15
NW
1/8-1/4
0.178 mi.
940 ft.**

**JOSEPH PLESTIS
220 STELLA IRELAND RD
BINGHAMTON, NY 13905**

**NY UST U003129156
N/A**

Site 2 of 2 in cluster C

**Relative:
Lower
Actual:
917 ft.**

UST:
Name: JOSEPH PLESTIS
Address: 220 STELLA IRELAND RD
City,State,Zip: BINGHAMTON, NY 13905
Id/Status: 7-441082 / Unregulated/Closed
Program Type: PBS
Region: STATE
DEC Region: 7
Expiration Date: N/A
UTM X: 431656.64359
UTM Y: 4663079.61355
Site Type: Private Residence

Affiliation Records:
Site Id: 45997
Affiliation Type: Facility Owner
Company Name: JOSEPH PLESTIS
Contact Type: Not reported
Contact Name: Not reported
Address1: 220 STELLA IRELAND RD.
Address2: Not reported
City: BINGHAMTON
State: NY
Zip Code: 13905
Country Code: 001
Phone: (607) 797-3140
EMail: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 2004-03-04

Site Id: 45997

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOSEPH PLESTIS (Continued)

U003129156

Affiliation Type: Mail Contact
Company Name: JOSEPH PLESTIS
Contact Type: Not reported
Contact Name: Not reported
Address1: 220 STELLA IRELAND RD.
Address2: Not reported
City: BINGHAMTON
State: NY
Zip Code: 13905
Country Code: 001
Phone: (607) 797-3140
EMail: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 2004-03-04

Site Id: 45997
Affiliation Type: Facility Operator
Company Name: JOSEPH PLESTIS
Contact Type: Not reported
Contact Name: JOSEPH PLESTIS
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 001
Phone: (607) 797-3140
EMail: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 2004-03-04

Site Id: 45997
Affiliation Type: Emergency Contact
Company Name: JOSEPH PLESTIS
Contact Type: Not reported
Contact Name: BERNICE PLESTIS
Address1: Not reported
Address2: Not reported
City: Not reported
State: NN
Zip Code: Not reported
Country Code: 001
Phone: (607) 797-3140
EMail: Not reported
Fax Number: Not reported
Modified By: TRANSLAT
Date Last Modified: 2004-03-04

Tank Info:

Tank Number: 001
Tank ID: 132700
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 1000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOSEPH PLESTIS (Continued)

U003129156

Install Date: 12/01/1981
Date Tank Closed: 04/17/1999
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
H00 - Tank Leak Detection - None
I00 - Overfill - None
F00 - Pipe External Protection - None
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
D01 - Pipe Type - Steel/Carbon Steel/Iron
A00 - Tank Internal Protection - None

Tank Number: 002
Tank ID: 132701
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 1000
Install Date: 12/01/1982
Date Tank Closed: 04/17/1999
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

G00 - Tank Secondary Containment - None
J02 - Dispenser - Suction Dispenser
H00 - Tank Leak Detection - None
I00 - Overfill - None
F00 - Pipe External Protection - None
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
D01 - Pipe Type - Steel/Carbon Steel/Iron
A00 - Tank Internal Protection - None

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

16
 NE
 1/8-1/4
 0.226 mi.
 1195 ft.

**BOCES - GLENWOOD RD.
 421 UPPER GLENWOOD RD
 BINGHAMTON (T), NY**

**NY LTANKS S102677857
 N/A**

**Relative:
 Higher
 Actual:
 1282 ft.**

LTANKS:
 Name: BOCES - GLENWOOD RD.
 Address: 421 UPPER GLENWOOD RD
 City,State,Zip: BINGHAMTON (T), NY
 Spill Number/Closed Date: 9006826 / 1996-06-18
 Facility ID: 9006826
 Site ID: 235159
 Spill Date: 1990-09-19
 Spill Cause: Tank Overfill
 Spill Source: Institutional, Educational, Gov., Other
 Spill Class: C3
 Cleanup Ceased: Not reported
 SWIS: 0400
 Investigator: CLWARNER
 Referred To: SHORT TERM
 Reported to Dept: 1990-09-19
 CID: Not reported
 Water Affected: Not reported
 Spill Notifier: DEC
 Last Inspection: 1990-09-19
 Recommended Penalty: False
 Meets Standard: False
 UST Involvement: True
 Remediation Phase: 0
 Date Entered In Computer: 1990-09-24
 Spill Record Last Update: 1996-06-18
 Spiller Name: Not reported
 Spiller Company: BOCES
 Spiller Address: 421 UPPER GLENWOOD RD.
 Spiller County: 001
 Spiller Contact: Not reported
 Spiller Phone: Not reported
 Spiller Extention: Not reported
 DEC Region: 7
 DER Facility ID: 193692
 DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was
 CWS 09/19/90: REMOVED CONTAMINATED SOIL AND STOCKPILED ON PLASTIC.
 REQUESTED THE INSTALLATION OF MONITORING WELLS. "
 Remarks: "ENVIRONMENTAL SERVICE GROUP REMOVING 2K GAL. GASOLINE TANK.
 CONTAMINATED SOIL AND GROUNDWATER WAS ENCOUNTERED."
All TTF:
 Facility ID: 9006826
 Spill Number: 9006826
 Spill Tank Test: 1537582
 Site ID: 235159
 Tank Number: Not reported
 Tank Size: 0
 Material: 0009
 EPA UST: Not reported
 UST: Not reported
 Cause: 02
 Source: Not reported
 Test Method: 00

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BOCES - GLENWOOD RD. (Continued)

S102677857

Test Method 2: Unknown
Leak Rate: .00
Gross Fail: Not reported
Modified By: Spills
Last Modified Date: Not reported

All Materials:

Site ID: 235159
Operable Unit ID: 947338
Operable Unit: 01
Material ID: 434272
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Resource Affected: Groundwater
Oxygenate: Not reported

17
SE
1/8-1/4
0.241 mi.
1270 ft.

NEW ELY PARK DUMP SITE
154 GLENWOOD ROAD (200 FT NNE OF ST MICHAEL'S CEMETARY)
DICKINSON, NY

NY SWF/LF S126023423
N/A

Relative:
Higher
Actual:
1211 ft.

SWF/LF:
Name: NEW ELY PARK DUMP SITE
Address: 154 GLENWOOD ROAD (200 FT NNE OF ST MICHAEL'S CEMETARY)
City,State,Zip: DICKINSON, NY
Flag: INACTIVE
Region Code: 7
Phone Number: Not reported
Owner Name: John Sacaceno (Glenwood Road LLC), Property owner
Owner Type: Not reported
Owner Address: Not reported
Owner Addr2: Not reported
Owner City,St,Zip: Not reported
Owner Email: Not reported
Owner Phone: 607-722-1100, x 138
Contact Name: Town of Binghamton
Contact Address: Not reported
Contact Addr2: Not reported
Contact City,St,Zip: Not reported
Contact Email: Not reported
Contact Phone: Not reported
Activity Desc: MSW/Industrial
Activity Number: Not reported
Active: Not reported
East Coordinate: Not reported
North Coordinate: Not reported
Accuracy Code: Not reported
Regulatory Status: Not reported
Waste Type: Not reported
Authorization #: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

NEW ELY PARK DUMP SITE (Continued)

S126023423

Authorization Date: Not reported
 Expiration Date: Not reported
 Operator Name: Not reported
 Operator Type: Not reported
 Last Date: Not reported

D18
NE
 1/4-1/2
 0.364 mi.
 1920 ft.

ELY PAEK APARTMENTS
ELY PARK BLVD
BINGHAMTON, NY

NY LTANKS **S102166772**
NY Spills **N/A**

Site 1 of 2 in cluster D

Relative:
Higher

LTANKS:

Actual:
1331 ft.

Name: MANAGEMENT OFFICE
 Address: ELY PARK BLVD
 City,State,Zip: BINGHAMTON, NY
 Spill Number/Closed Date: 9706143 / 1997-09-04
 Facility ID: 9706143
 Site ID: 239911
 Spill Date: 1997-08-20
 Spill Cause: Tank Failure
 Spill Source: Commercial/Industrial
 Spill Class: C3
 Cleanup Ceased: Not reported
 SWIS: 0422
 Investigator: PETERSON
 Referred To: SHORT TERM
 Reported to Dept: 1997-08-20
 CID: 999
 Water Affected: Not reported
 Spill Notifier: Citizen
 Last Inspection: Not reported
 Recommended Penalty: False
 Meets Standard: True
 UST Involvement: True
 Remediation Phase: 0
 Date Entered In Computer: 1997-08-20
 Spill Record Last Update: 1997-09-04
 Spiller Name: UNK
 Spiller Company: SCOTT SMITH
 Spiller Address: ELY PARK BLVD
 Spiller County: 001
 Spiller Contact: UNK
 Spiller Phone: (000) 000-0000
 Spiller Extention: Not reported
 DEC Region: 7
 DER Facility ID: 197344
 DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was GPS "
 Remarks: "REMOVAL OF TANK CONTAMINATED SOIL,COULD NOT BE REMOVED DUE TO UTILITIES"

All Materials:

Site ID: 239911
 Operable Unit ID: 1052318
 Operable Unit: 01
 Material ID: 331741
 Material Code: 0009

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ELY PAEK APARTMENTS (Continued)

S102166772

Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Resource Affected: Soil
Oxygenate: Not reported

SPILLS:

Name: ELY PAEK APARTMENTS
Address: ELY PARK BLVD
City,State,Zip: BINGHAMTON, NY
Spill Number/Closed Date: 9005278 / 1990-08-14
Facility ID: 9005278
Facility Type: ER
DER Facility ID: 197344
Site ID: 290937
DEC Region: 7
Spill Cause: Unknown
Spill Class: Not reported
SWIS: 0422
Spill Date: 1990-08-13
Investigator: CLWARNER
Referred To: LONG TERM
Reported to Dept: 1990-08-13
CID: Not reported
Water Affected: Not reported
Spill Source: Unknown
Spill Notifier: Citizen
Cleanup Ceased: 1990-08-13
Cleanup Meets Std: True
Last Inspection: 1990-08-13
Recommended Penalty: False
UST Trust: False
Remediation Phase: 0
Date Entered In Computer: Not reported
Spill Record Last Update: 2003-12-02
Spiller Name: Not reported
Spiller Company: UNKNOWN
Spiller Address: Not reported
Spiller Company: 999
Contact Name: Not reported
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was
CWA 08/13/90: VISITED SITE.
GRASS AROUND FILL PIPE WAS DEAD. DID NOT NOTICE ANY ODORS IN SOIL
AROUND PIPE. NO FURTHER ACTION. "
Remarks: "CITIZEN CALLED INDICATING THAT UNDERGROUND GASOLINE TANK MAY BE
LEAKING."

All Materials:

Site ID: 290937
Operable Unit ID: 942814
Operable Unit: 01
Material ID: 436329
Material Code: 0066A

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ELY PAEK APARTMENTS (Continued)

S102166772

Material Name: unknown petroleum
 Case No.: Not reported
 Material FA: Petroleum
 Quantity: .00
 Units: Not reported
 Recovered: .00
 Resource Affected: Soil
 Oxygenate: Not reported

E19
SSW
1/4-1/2
0.374 mi.
1974 ft.

MIRABITO #86
53 DOWNS AVE
BINGHAMTON, NY 13905
Site 1 of 2 in cluster E

NY LTANKS **U003313916**
NY UST **N/A**
NY Spills

Relative:
Lower
Actual:
844 ft.

LTANKS:
 Name: TIDY CAR
 Address: 53 DOWNS AVE
 City,State,Zip: BINGHAMTON, NY
 Spill Number/Closed Date: 8903729 / 1989-08-03
 Facility ID: 8903729
 Site ID: 251200
 Spill Date: 1989-07-11
 Spill Cause: Tank Failure
 Spill Source: Gasoline Station or other PBS Facility
 Spill Class: B3
 Cleanup Ceased: 1989-08-03
 SWIS: 0422
 Investigator: CLWARNER
 Referred To: LONG TERM
 Reported to Dept: 1989-07-12
 CID: Not reported
 Water Affected: Not reported
 Spill Notifier: Other
 Last Inspection: 1989-08-03
 Recommended Penalty: False
 Meets Standard: True
 UST Involvement: True
 Remediation Phase: 0
 Date Entered In Computer: 1989-07-14
 Spill Record Last Update: 1989-08-10
 Spiller Name: Not reported
 Spiller Company: RON AKEL
 Spiller Address: 100 OAKDALE RD.
 Spiller County: 001
 Spiller Contact: Not reported
 Spiller Phone: Not reported
 Spiller Extention: Not reported
 DEC Region: 7
 DER Facility ID: 205880
 DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was CWA 07/14/89: CONTAMINATED SOIL REMOVED AND PLACED ON PLASTIC. TESTS WILL BE DONE ON SOIL. AWAITING DISPOSAL. 08/03/89: CONTAMINATED SOIL REMOVED AND PLACED ON PLASTIC. TESTS WILL BE DONE ON SOIL. AWAITING DISPOSAL. 8-3-89 CONTAMINATED SOIL HAS BEEN REMOVED. NO FURTHER ACTION. "
 Remarks: "ENVIRONMENTAL OIL REMOVING UNDERGROUND TANKS NOTICED CONTAMINATION

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIRABITO #86 (Continued)

U003313916

IN SOIL."

All Materials:

Site ID: 251200
Operable Unit ID: 929147
Operable Unit: 01
Material ID: 447807
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Resource Affected: Groundwater
Oxygenate: Not reported

UST:

Name: MIRABITO #86
Address: 53 DOWNS AVE
City,State,Zip: BINGHAMTON, NY 13905
Id/Status: 7-465208 / Active
Program Type: PBS
Region: STATE
DEC Region: 7
Expiration Date: 05/30/2024
UTM X: 421860.85745
UTM Y: 4663203.97913
Site Type: Retail Gasoline Sales

Affiliation Records:

Site Id: 46254
Affiliation Type: Mail Contact
Company Name: MIRABITO HOLDINGS INC
Contact Type: DIRECTOR - FACILITIES COMPLIANCE SAFETY
Contact Name: RUSSELL WARK
Address1: 49 COURT ST
Address2: PO BOX 5306
City: BINGHAMTON
State: NY
Zip Code: 13902
Country Code: 001
Phone: (607) 352-2953
EMail: RUSSELL.WARK@MIRABITO.COM
Fax Number: Not reported
Modified By: KCKEMP
Date Last Modified: 2022-11-30

Site Id: 46254
Affiliation Type: Facility Owner
Company Name: MIRABITO PROPCO I LLC
Contact Type: DIRECTOR - COMPLIANCE AND SAFETY
Contact Name: RUSSELL WARK
Address1: 49 COURT ST - PO BOX 5306
Address2: Not reported
City: BINGHAMTON
State: NY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIRABITO #86 (Continued)

U003313916

Zip Code: 13902
Country Code: 001
Phone: (607) 352-2800
EMail: Not reported
Fax Number: Not reported
Modified By: DMSTORAN
Date Last Modified: 2021-06-17

Tank Info:

Tank Number: 001
Tank ID: 133366
Tank Status: Closed Prior to Micro Conversion, 03/91
Material Name: Closed Prior to Micro Conversion, 03/91
Capacity Gallons: 3000
Install Date: Not reported
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

D00 - Pipe Type - No Piping
H00 - Tank Leak Detection - None
I00 - Overfill - None
G00 - Tank Secondary Containment - None
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
J01 - Dispenser - Pressurized Dispenser
A00 - Tank Internal Protection - None

Tank Number: 002
Tank ID: 133367
Tank Status: Closed Prior to Micro Conversion, 03/91
Material Name: Closed Prior to Micro Conversion, 03/91
Capacity Gallons: 3000
Install Date: Not reported
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIRABITO #86 (Continued)

U003313916

Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

D00 - Pipe Type - No Piping
H00 - Tank Leak Detection - None
I00 - Overfill - None
G00 - Tank Secondary Containment - None
J01 - Dispenser - Pressurized Dispenser
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
A00 - Tank Internal Protection - None

Tank Number: 003
Tank ID: 133368
Tank Status: Closed Prior to Micro Conversion, 03/91
Material Name: Closed Prior to Micro Conversion, 03/91
Capacity Gallons: 2000
Install Date: Not reported
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

I00 - Overfill - None
H00 - Tank Leak Detection - None
D00 - Pipe Type - No Piping
G00 - Tank Secondary Containment - None
J01 - Dispenser - Pressurized Dispenser
B00 - Tank External Protection - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
A00 - Tank Internal Protection - None

Tank Number: 004
Tank ID: 133369
Tank Status: Closed Prior to Micro Conversion, 03/91
Material Name: Closed Prior to Micro Conversion, 03/91
Capacity Gallons: 2000
Install Date: Not reported
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIRABITO #86 (Continued)

U003313916

Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

H00 - Tank Leak Detection - None
D00 - Pipe Type - No Piping
I00 - Overfill - None
G00 - Tank Secondary Containment - None
C00 - Pipe Location - No Piping
F00 - Pipe External Protection - None
B00 - Tank External Protection - None
J01 - Dispenser - Pressurized Dispenser
A00 - Tank Internal Protection - None

Tank Number: 01
Tank ID: 140508
Tank Status: In Service
Material Name: In Service
Capacity Gallons: 10000
Install Date: 05/01/2003
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: 0
Material Code: 2712
Common Name of Substance: Gasoline/Ethanol

Tightness Test Method: 00
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

H05 - Tank Leak Detection - In-Tank System (ATG)
K01 - Spill Prevention - Catch Basin
L07 - Piping Leak Detection - Pressurized Piping Leak Detector
B09 - Tank External Protection - Urethane
F05 - Pipe External Protection - Jacketed
D11 - Pipe Type - Flexible Piping
G04 - Tank Secondary Containment - Double-Walled (Underground)
L01 - Piping Leak Detection - Interstitial - Electronic Monitoring
C02 - Pipe Location - Underground/On-ground
J01 - Dispenser - Pressurized Dispenser
E04 - Piping Secondary Containment - Double walled UG
I03 - Overfill - Automatic Shut-Off
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
A00 - Tank Internal Protection - None

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIRABITO #86 (Continued)

U003313916

Tank Number: 02A
Tank ID: 140509
Tank Status: In Service
Material Name: In Service
Capacity Gallons: 4000
Install Date: 05/01/2003
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: 0
Material Code: 2712
Common Name of Substance: Gasoline/Ethanol

Tightness Test Method: 00
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

H05 - Tank Leak Detection - In-Tank System (ATG)
L07 - Piping Leak Detection - Pressurized Piping Leak Detector
B09 - Tank External Protection - Urethane
K01 - Spill Prevention - Catch Basin
F05 - Pipe External Protection - Jacketed
G04 - Tank Secondary Containment - Double-Walled (Underground)
D11 - Pipe Type - Flexible Piping
L01 - Piping Leak Detection - Interstitial - Electronic Monitoring
C02 - Pipe Location - Underground/On-ground
E04 - Piping Secondary Containment - Double walled UG
J01 - Dispenser - Pressurized Dispenser
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
I01 - Overfill - Float Vent Valve
A00 - Tank Internal Protection - None

Tank Number: 02B
Tank ID: 140510
Tank Status: In Service
Material Name: In Service
Capacity Gallons: 4000
Install Date: 05/01/2003
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: 0
Material Code: 0008
Common Name of Substance: Diesel

Tightness Test Method: 00
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIRABITO #86 (Continued)

U003313916

H05 - Tank Leak Detection - In-Tank System (ATG)
K01 - Spill Prevention - Catch Basin
L07 - Piping Leak Detection - Pressurized Piping Leak Detector
B09 - Tank External Protection - Urethane
F05 - Pipe External Protection - Jacketed
D11 - Pipe Type - Flexible Piping
G04 - Tank Secondary Containment - Double-Walled (Underground)
L01 - Piping Leak Detection - Interstitial - Electronic Monitoring
C02 - Pipe Location - Underground/On-ground
J01 - Dispenser - Pressurized Dispenser
E04 - Piping Secondary Containment - Double walled UG
I03 - Overfill - Automatic Shut-Off
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
A00 - Tank Internal Protection - None

Tank Number: 03
Tank ID: 140511
Tank Status: In Service
Material Name: In Service
Capacity Gallons: 2000
Install Date: 05/01/2003
Date Tank Closed: Not reported
Registered: True
Tank Location: Underground
Tank Type: 0
Material Code: 2722
Common Name of Substance: Kerosene [#1 Fuel Oil] (Resale/Redistribute)

Tightness Test Method: 00
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

H05 - Tank Leak Detection - In-Tank System (ATG)
L07 - Piping Leak Detection - Pressurized Piping Leak Detector
B09 - Tank External Protection - Urethane
K01 - Spill Prevention - Catch Basin
F05 - Pipe External Protection - Jacketed
G04 - Tank Secondary Containment - Double-Walled (Underground)
D11 - Pipe Type - Flexible Piping
L01 - Piping Leak Detection - Interstitial - Electronic Monitoring
C02 - Pipe Location - Underground/On-ground
J01 - Dispenser - Pressurized Dispenser
E04 - Piping Secondary Containment - Double walled UG
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
I03 - Overfill - Automatic Shut-Off
A00 - Tank Internal Protection - None

Tank Number: 0A1
Tank ID: 133370
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 10000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIRABITO #86 (Continued)

U003313916

Install Date: 07/01/1989
Date Tank Closed: 10/13/2002
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

H05 - Tank Leak Detection - In-Tank System (ATG)
D06 - Pipe Type - Fiberglass Reinforced Plastic (FRP)
I02 - Overfill - High Level Alarm
I04 - Overfill - Product Level Gauge (A/G)
G04 - Tank Secondary Containment - Double-Walled (Underground)
C02 - Pipe Location - Underground/On-ground
B02 - Tank External Protection - Original Sacrificial Anode
F00 - Pipe External Protection - None
J01 - Dispenser - Pressurized Dispenser
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
A00 - Tank Internal Protection - None

Tank Number: 0A2
Tank ID: 133371
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 6000
Install Date: 07/01/1989
Date Tank Closed: 10/14/2002
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

H05 - Tank Leak Detection - In-Tank System (ATG)
I02 - Overfill - High Level Alarm
D06 - Pipe Type - Fiberglass Reinforced Plastic (FRP)
I04 - Overfill - Product Level Gauge (A/G)
G04 - Tank Secondary Containment - Double-Walled (Underground)
C02 - Pipe Location - Underground/On-ground
J01 - Dispenser - Pressurized Dispenser
F00 - Pipe External Protection - None

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIRABITO #86 (Continued)

U003313916

B02 - Tank External Protection - Original Sacrificial Anode
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
A00 - Tank Internal Protection - None

Tank Number: 0A3
Tank ID: 133372
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 6000
Install Date: 07/01/1989
Date Tank Closed: 10/14/2002
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 0009
Common Name of Substance: Gasoline

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Equipment Records:

H05 - Tank Leak Detection - In-Tank System (ATG)
I02 - Overfill - High Level Alarm
D06 - Pipe Type - Fiberglass Reinforced Plastic (FRP)
I04 - Overfill - Product Level Gauge (A/G)
G04 - Tank Secondary Containment - Double-Walled (Underground)
C02 - Pipe Location - Underground/On-ground
J01 - Dispenser - Pressurized Dispenser
B02 - Tank External Protection - Original Sacrificial Anode
F00 - Pipe External Protection - None
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
A00 - Tank Internal Protection - None

Tank Number: 0A4
Tank ID: 133373
Tank Status: Closed - Removed
Material Name: Closed - Removed
Capacity Gallons: 1000
Install Date: 07/01/1989
Date Tank Closed: 10/15/2002
Registered: True
Tank Location: Underground
Tank Type: Steel/carbon steel
Material Code: 2722
Common Name of Substance: Kerosene [#1 Fuel Oil] (Resale/Redistribute)

Tightness Test Method: NN
Date Test: Not reported
Next Test Date: Not reported
Pipe Model: Not reported
Modified By: MJGRIFFI
Last Modified: 05/09/2022

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIRABITO #86 (Continued)

U003313916

Equipment Records:

H05 - Tank Leak Detection - In-Tank System (ATG)
D06 - Pipe Type - Fiberglass Reinforced Plastic (FRP)
I02 - Overfill - High Level Alarm
I04 - Overfill - Product Level Gauge (A/G)
G04 - Tank Secondary Containment - Double-Walled (Underground)
C02 - Pipe Location - Underground/On-ground
F00 - Pipe External Protection - None
J01 - Dispenser - Pressurized Dispenser
B02 - Tank External Protection - Original Sacrificial Anode
H01 - Tank Leak Detection - Interstitial - Electronic Monitoring
A00 - Tank Internal Protection - None

SPILLS:

Name: TIDY CAR APPEARANCE CTR.
Address: 53 DOWNS AVE
City,State,Zip: BINGHAMTON, NY
Spill Number/Closed Date: 0165054 / 2002-08-06
Facility ID: 0165054
Facility Type: ER
DER Facility ID: 205880
Site ID: 251198
DEC Region: 7
Spill Cause: Housekeeping
Spill Class: C3
SWIS: 0422
Spill Date: 2001-05-01
Investigator: CLWARNER
Referred To: SHORT TERM
Reported to Dept: 2001-08-21
CID: Not reported
Water Affected: Not reported
Spill Source: Commercial/Industrial
Spill Notifier: Affected Persons
Cleanup Ceased: Not reported
Cleanup Meets Std: False
Last Inspection: Not reported
Recommended Penalty: False
UST Trust: False
Remediation Phase: 0
Date Entered In Computer: 2001-08-21
Spill Record Last Update: 2002-08-06
Spiller Name: Not reported
Spiller Company: TIDY CAR APPEARANCE CTR.
Spiller Address: 53 DOWNS AVE.
Spiller Company: 001
Contact Name: Not reported
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was CWS "
Remarks: "HOLDING TANK APPEARS TO BE LEAKING. MATERIAL LEACHING ON TO NEIGHBORING PROPERTY. WASTE MATERIALS FROM DETAILING CARS."

All Materials:

Site ID: 251198
Operable Unit ID: 849955
Operable Unit: 01
Material ID: 523612

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIRABITO #86 (Continued)

U003313916

Material Code: 0064A
Material Name: unknown material
Case No.: Not reported
Material FA: Other
Quantity: .00
Units: G
Recovered: .00
Resource Affected: Soil
Oxygenate: Not reported

Name: TIDY CAR
Address: 53 DOWNS AVE
City,State,Zip: BINGHAMTON, NY
Spill Number/Closed Date: 0265053 / 2007-04-27
Facility ID: 0265053
Facility Type: ER
DER Facility ID: 205880
Site ID: 251199
DEC Region: 7
Spill Cause: Unknown
Spill Class: C3
SWIS: 0422
Spill Date: 2002-10-15
Investigator: CLWARNER
Referred To: LONG TERM
Reported to Dept: 2002-10-15
CID: Not reported
Water Affected: Not reported
Spill Source: Gasoline Station or other PBS Facility
Spill Notifier: Other
Cleanup Ceased: Not reported
Cleanup Meets Std: False
Last Inspection: Not reported
Recommended Penalty: False
UST Trust: False
Remediation Phase: 0
Date Entered In Computer: 2002-10-18
Spill Record Last Update: 2007-04-27
Spiller Name: RON AKEL
Spiller Company: AKEL
Spiller Address: 100 OAKDALE RD.
Spiller Company: 001
Contact Name: BRIAN O'NEIL
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was
CWA 10-25-02 RECEIVED TEST
RESULTS FROM SAMPLES TAKEN FROM PUMP ISLAND EXCAVATION. RESULTS WELL
ABOVE TAGM. SAMPLE WAS AT
GROUNDWATER LEVEL. AWAITING TEST RESULTS FROM TANK EXCAVATION. STIP TO
BE SENT. SPOKE WITH SUSAN
CUMMIN'S FROM GEOLOGIC. THEY WILL BE DOING INVESTIGATION FOR AKEL.
11-1-02 SENT STIP TO RON AKEL.
11-4-02 RECEIVED TEST RESULTS FROM TANK EXCAVATION. A COUPLE HITS WELL
BELOW TABM. 11-15-02 SPOKE
WITH SUSAN CUMMINS FROM GEOLOGIC. SHE SAID GEOPROBE WAS TO BE DONE ON
11-18. TOLD HER WE DID NOT
HAVE A SIGNED STIP YET AND PROBABLY WOULD NOT BE AT THE SITE. 12-2-02

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MIRABITO #86 (Continued)

U003313916

Remarks: SPOKE WITH SUSAN CUMMINS. SHE SAID ALL RESULTS FROM GEOPROBE WERE NOT IN YET BUT IT APPEARS AS THOUGH CONTAMINATION IS CONTAINED ON PROPERTY. SHE WILL BE SENDING REMEDIAL ACTION PLAN IN THE NEAR FUTURE. 12-3-02 SPOKE WITH RON AKEL. HE SAID STIP WAS SIGNED AND HE WOULD BE MAILING IT OUT TODAY." "TANKS BEING REMOVED. CONTAMINATED SOIL FOUND UNDER PUMP ISLAND. SOIL EXCAVATED AND STOCKPILED. SAMPLES TAKEN."

All Materials:

Site ID: 251199
Operable Unit ID: 867091
Operable Unit: 01
Material ID: 510198
Material Code: 0009
Material Name: gasoline
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Resource Affected: Groundwater
Oxygenate: Not reported

D20
NE
1/4-1/2
0.374 mi.
1974 ft.

ELY PARK CITY OF BINGHAMTON
72-96 ELY PARK BLVD
BINGHAMTON, NY
Site 2 of 2 in cluster D

NY SWF/LF S126022905
N/A

Relative:
Higher
Actual:
1336 ft.

SWF/LF:
Name: ELY PARK CITY OF BINGHAMTON
Address: 72-96 ELY PARK BLVD
City,State,Zip: BINGHAMTON, NY
Flag: INACTIVE
Region Code: 7
Phone Number: Not reported
Owner Name: Not reported
Owner Type: Not reported
Owner Address: Not reported
Owner Addr2: Not reported
Owner City,St,Zip: Not reported
Owner Email: Not reported
Owner Phone: Not reported
Contact Name: Not reported
Contact Address: Not reported
Contact Addr2: Not reported
Contact City,St,Zip: Not reported
Contact Email: Not reported
Contact Phone: Not reported
Activity Desc: Not reported
Activity Number: Not reported
Active: Not reported
East Coordinate: Not reported
North Coordinate: Not reported
Accuracy Code: 2: Fair; Perimeter unclear
Regulatory Status: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ELY PARK CITY OF BINGHAMTON (Continued)

S126022905

Waste Type: Not reported
 Authorization #: Not reported
 Authorization Date: Not reported
 Expiration Date: Not reported
 Operator Name: Not reported
 Operator Type: Not reported
 Laste Date: Not reported

E21
SSW
1/4-1/2
0.416 mi.
2194 ft.

KOTASEK CORP.
23 MARKET ST
BINGHAMTON, NY
Site 2 of 2 in cluster E

NY LTANKS **S100153246**
N/A

Relative:
Lower
Actual:
847 ft.

LTANKS:
 Name: KOTASEK CORP.
 Address: 23 MARKET ST
 City,State,Zip: BINGHAMTON, NY
 Spill Number/Closed Date: 9106805 / 1999-01-26
 Facility ID: 9106805
 Site ID: 88985
 Spill Date: 1991-09-24
 Spill Cause: Tank Failure
 Spill Source: Commercial/Industrial
 Spill Class: A3
 Cleanup Ceased: 1995-10-24
 SWIS: 0422
 Investigator: CLWARNER
 Referred To: LONG TERM
 Reported to Dept: 1991-09-24
 CID: Not reported
 Water Affected: Not reported
 Spill Notifier: DEC
 Last Inspection: 1991-09-24
 Recommended Penalty: False
 Meets Standard: True
 UST Involvement: True
 Remediation Phase: 0
 Date Entered In Computer: 1991-10-03
 Spill Record Last Update: 1999-01-26
 Spiller Name: Not reported
 Spiller Company: KOTASEK CORPORATION
 Spiller Address: 23 MARKET ST.
 Spiller County: 001
 Spiller Contact: Not reported
 Spiller Phone: Not reported
 Spiller Extention: Not reported
 DEC Region: 7
 DER Facility ID: 81330
 DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was CWA 9-29-97 SPILL IS BEING REOPENED. OWNER IS GOING TO CLEAN UP SITE. 1-25-99 TEST RESULTS FROM ALL MONITORING WELLS ARE ND. NO FURTHER ACTION."
 Remarks: "2K GAS TANK REMOVED. HOLES FOUND. CONTAMINATED SOIL REMOVED. G.W. INVESTAGATION REQUESTED."

All TTF:
 Facility ID: 9106805

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

KOTASEK CORP. (Continued)

S100153246

Spill Number: 9106805
 Spill Tank Test: 1539086
 Site ID: 88985
 Tank Number: Not reported
 Tank Size: 0
 Material: 0009
 EPA UST: Not reported
 UST: Not reported
 Cause: Not reported
 Source: Not reported
 Test Method: 00
 Test Method 2: Unknown
 Leak Rate: .00
 Gross Fail: Not reported
 Modified By: Spills
 Last Modified Date: Not reported

All Materials:

Site ID: 88985
 Operable Unit ID: 957131
 Operable Unit: 01
 Material ID: 422481
 Material Code: 0009
 Material Name: gasoline
 Case No.: Not reported
 Material FA: Petroleum
 Quantity: .00
 Units: G
 Recovered: .00
 Resource Affected: Groundwater
 Oxygenate: Not reported

22
 SW
 1/4-1/2
 0.429 mi.
 2263 ft.

**FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG.
 10 GANNETT DRIVE
 JOHNSON CITY (V), NY 13790**

**NY ENG CONTROLS
 NY INST CONTROL
 NY BROWNFIELDS**

**S108410665
 N/A**

**Relative:
 Lower
 Actual:
 844 ft.**

ENG CONTROLS:

Name: FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG.
 Address: 10 GANNETT DRIVE
 City,State,Zip: JOHNSON CITY (V), NY 13790
 Site Code: 58444
 HW Code: C704041
 Control Code: 15
 Control Type: ENG
 Date Record Added: 01/05/2007
 Date Rec Updated: 10/28/2022
 Updated By: GWPRISCO
 Site Description: "The Former Ranger Paracord - Northeastern Segment is located in an urban portion of Broome County, NY. The street address is 10 Gannett Drive, Village of Johnson City. The main site features included large abandoned buildings surrounded by parking areas and roadways. All of the buildings have been removed from the site. The surrounding adjacent parcels are a mix of commercial and residential use. Contamination of the site is believed to be associated with oils from

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

machinery used to manufacture shoes. An investigation report was approved in 2004. Remedial measures have been completed consistant with approved work plans. An environmetal easement was filed on 11/8/2006 and the Certificate of Completion was issued on 12/22/06. "

Env Problem: "The primary contaminants of concern at this site are semi-volatile organic compounds (SVOCs). Elevated levels of SVOCs above guidance levels have been found in site soils and have been addressed. The groundwater has not been impacted with SVOCs. This site does not present a significant threat to the environment."

Health Problem: "Public water is provided to the area, thereby preventing exposures via drinking water. Contaminated soil has been removed from the site. The site is being developed into commercial property, and the entire site will be covered with a building, paved parking areas, and landscaped areas. All landscaped areas will include a minimum two feet clean soil cover. These measures will prevent direct contact to any residual contamination. A sub-slab depressurization system is part of the building's design to prevent infiltration of soil vapor."

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:07:61. / 75:56:79.3
Dell: False
Record Add: 2004-04-01 12:53:00
Record Upd: 2009-04-02 14:34:00
Updated By: MOBARRIE
Own Op: 1
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: 01
Owner Name: Marc Newman
Owner Company: Stella Ireland Road Associates
Owner Address: 300 Plaza Drive
Owner Addr2: PO Box 678
Owner City,St,Zip: Vestal, NY 13851
Owner Country: United States of America
Own Op: 6
Sub Type: C01
Owner Name: Kevin McLaughlin
Owner Company: Broome County Industrial Development Agency
Owner Address: Edwin L. Cawford County Office Building
Owner Addr2: 60 Hawley Street, 5th Floor, P.O. Box 1510
Owner City,St,Zip: Binghamton, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: E
Owner Name: Not reported
Owner Company: GANNETT SATELLITE INFORMATION NETWORK, INC.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Owner Address: 7950 JONES BRANCH DRIVE
Owner Addr2: Not reported
Owner City,St,Zip: MCLEAN, VA 22107
Owner Country: United States of America
Own Op: 6
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
HW Code: Not reported
Waste Type: Not reported
Waste Quantity: Not reported
Waste Code: Not reported
Crossref ID: E704040
Cross Ref Type Code: 03
Cross Ref Type: ERP Site ID
Record Added Date: 2007-11-05 16:56:00
Record Updated: 2007-11-05 16:56:00
Updated By: DMMOLOUG
Crossref ID: V00727
Cross Ref Type Code: 04
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 17:00:00
Record Updated: 2007-11-05 17:00:00
Updated By: DMMOLOUG
Crossref ID: V00726
Cross Ref Type Code: 04
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 16:59:00
Record Updated: 2007-11-05 16:59:00
Updated By: DMMOLOUG
Crossref ID: C704048
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: C704042
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: B7-0654-04-01
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 2009-06-02 09:01:00
Record Updated: 2009-06-02 09:01:00
Updated By: THKNIZEK

Name: FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG.
Address: 10 GANNETT DRIVE
City,State,Zip: JOHNSON CITY (V), NY 13790
Site Code: 58444

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

HW Code: C704041
Control Code: 13
Control Type: ENG
Date Record Added: 01/05/2007
Date Rec Updated: 10/28/2022
Updated By: GWPRISCO
Site Description: "The Former Ranger Paracord - Northeastern Segment is located in an urban portion of Broome County, NY. The street address is 10 Gannett Drive, Village of Johnson City. The main site features included large abandoned buildings surrounded by parking areas and roadways. All of the buildings have been removed from the site. The surrounding adjacent parcels are a mix of commercial and residential use. Contamination of the site is believed to be associated with oils from machinery used to manufacture shoes. An investigation report was approved in 2004. Remedial measures have been completed consistent with approved work plans. An environmental easement was filed on 11/8/2006 and the Certificate of Completion was issued on 12/22/06. "

Env Problem: "The primary contaminants of concern at this site are semi-volatile organic compounds (SVOCs). Elevated levels of SVOCs above guidance levels have been found in site soils and have been addressed. The groundwater has not been impacted with SVOCs. This site does not present a significant threat to the environment."

Health Problem: "Public water is provided to the area, thereby preventing exposures via drinking water. Contaminated soil has been removed from the site. The site is being developed into commercial property, and the entire site will be covered with a building, paved parking areas, and landscaped areas. All landscaped areas will include a minimum two feet clean soil cover. These measures will prevent direct contact to any residual contamination. A sub-slab depressurization system is part of the building's design to prevent infiltration of soil vapor."

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:07:61. / 75:56:79.3
Dell: False
Record Add: 2004-04-01 12:53:00
Record Upd: 2009-04-02 14:34:00
Updated By: MOBARRIE
Own Op: 1
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: 01
Owner Name: Marc Newman
Owner Company: Stella Ireland Road Associates
Owner Address: 300 Plaza Drive
Owner Addr2: PO Box 678
Owner City,St,Zip: Vestal, NY 13851

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Owner Country: United States of America
Own Op: 6
Sub Type: C01
Owner Name: Kevin McLaughlin
Owner Company: Broome County Industrial Development Agency
Owner Address: Edwin L. Cawford County Office Building
Owner Addr2: 60 Hawley Street, 5th Floor, P.O. Box 1510
Owner City,St,Zip: Binghamton, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: E
Owner Name: Not reported
Owner Company: GANNETT SATELLITE INFORMATION NETWORK, INC.
Owner Address: 7950 JONES BRANCH DRIVE
Owner Addr2: Not reported
Owner City,St,Zip: MCLEAN, VA 22107
Owner Country: United States of America
Own Op: 6
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
HW Code: Not reported
Waste Type: Not reported
Waste Quantity: Not reported
Waste Code: Not reported
Crossref ID: E704040
Cross Ref Type Code: 03
Cross Ref Type: ERP Site ID
Record Added Date: 2007-11-05 16:56:00
Record Updated: 2007-11-05 16:56:00
Updated By: DMMOLOUG
Crossref ID: V00727
Cross Ref Type Code: 04
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 17:00:00
Record Updated: 2007-11-05 17:00:00
Updated By: DMMOLOUG
Crossref ID: V00726
Cross Ref Type Code: 04
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 16:59:00
Record Updated: 2007-11-05 16:59:00
Updated By: DMMOLOUG
Crossref ID: C704048
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: C704042
Cross Ref Type Code: 22
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: B7-0654-04-01
Cross Ref Type Code: 23
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 2009-06-02 09:01:00
Record Updated: 2009-06-02 09:01:00
Updated By: THKNIZEK

INST CONTROL:

Name: FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG.
Address: 10 GANNETT DRIVE
City,State,Zip: JOHNSON CITY (V), NY 13790
Site Code: 58444
Control Name: O&M Plan
HW Code: C704041
Control Code: 33
Control Type: INST
Dt record added: 01/05/2007
Dt rec updated: 10/28/2022
Updated By: GWPRISCO
Site Code: 58444
Site Description: "The Former Ranger Paracord - Northeastern Segment is located in an urban portion of Broome County, NY. The street address is 10 Gannett Drive, Village of Johnson City. The main site features included large abandoned buildings surrounded by parking areas and roadways. All of the buildings have been removed from the site. The surrounding adjacent parcels are a mix of commercial and residential use. Contamination of the site is believed to be associated with oils from machinery used to manufacture shoes. An investigation report was approved in 2004. Remedial measures have been completed consistant with approved work plans. An environmental easement was filed on 11/8/2006 and the Certificate of Completion was issued on 12/22/06. "

Env Problem: "The primary contaminants of concern at this site are semi-volatile organic compounds (SVOCs). Elevated levels of SVOCs above guidance levels have been found in site soils and have been addressed. The groundwater has not been impacted with SVOCs. This site does not present a significant threat to the environment."

Health Problem: "Public water is provided to the area, thereby preventing exposures via drinking water. Contaminated soil has been removed from the site. The site is being developed into commercial property, and the entire site will be covered with a building, paved parking areas, and landscaped areas. All landscaped areas will include a minimum two feet clean soil cover. These measures will prevent direct contact to any residual contamination. A sub-slab depressurization system is part of the building's design to prevent infiltration of soil vapor."

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:07:61. / 75:56:79.3
Dell: False
Record Add: 2004-04-01 12:53:00
Record Upd: 2009-04-02 14:34:00

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Updated By: MOBARRIE
Own Op: 1
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: 01
Owner Name: Marc Newman
Owner Company: Stella Ireland Road Associates
Owner Address: 300 Plaza Drive
Owner Addr2: PO Box 678
Owner City,St,Zip: Vestal, NY 13851
Owner Country: United States of America
Own Op: 6
Sub Type: C01
Owner Name: Kevin McLaughlin
Owner Company: Broome County Industrial Development Agency
Owner Address: Edwin L. Cawford County Office Building
Owner Addr2: 60 Hawley Street, 5th Floor, P.O. Box 1510
Owner City,St,Zip: Binghamton, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: E
Owner Name: Not reported
Owner Company: GANNETT SATELLITE INFORMATION NETWORK, INC.
Owner Address: 7950 JONES BRANCH DRIVE
Owner Addr2: Not reported
Owner City,St,Zip: MCLEAN, VA 22107
Owner Country: United States of America
Own Op: 6
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
HW Code: Not reported
Waste Type: Not reported
Waste Quantity: Not reported
Waste Code: Not reported
Crossref ID: E704040
Cross Ref Type Code:
Cross Ref Type: ERP Site ID
Record Added Date: 2007-11-05 16:56:00
Record Updated: 2007-11-05 16:56:00
Updated By: DMMOLOUG
Crossref ID: V00727
Cross Ref Type Code:
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 17:00:00
Record Updated: 2007-11-05 17:00:00
Updated By: DMMOLOUG

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Crossref ID: V00726
Cross Ref Type Code:
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 16:59:00
Record Updated: 2007-11-05 16:59:00
Updated By: DMMOLOUG
Crossref ID: C704048
Cross Ref Type Code:
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: C704042
Cross Ref Type Code:
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: B7-0654-04-01
Cross Ref Type Code:
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 2009-06-02 09:01:00
Record Updated: 2009-06-02 09:01:00
Updated By: THKNIZEK

Name: FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG.
Address: 10 GANNETT DRIVE
City,State,Zip: JOHNSON CITY (V), NY 13790
Site Code: 58444
Control Name: Ground Water Use Restriction
HW Code: C704041
Control Code: 08
Control Type: INST
Dt record added: 01/05/2007
Dt rec updated: 10/28/2022
Updated By: GWPRISCO
Site Code: 58444

Site Description: "The Former Ranger Paracord - Northeastern Segment is located in an urban portion of Broome County, NY. The street address is 10 Gannett Drive, Village of Johnson City. The main site features included large abandoned buildings surrounded by parking areas and roadways. All of the buildings have been removed from the site. The surrounding adjacent parcels are a mix of commercial and residential use. Contamination of the site is believed to be associated with oils from machinery used to manufacture shoes. An investigation report was approved in 2004. Remedial measures have been completed consistent with approved work plans. An environmental easement was filed on 11/8/2006 and the Certificate of Completion was issued on 12/22/06. "

Env Problem: "The primary contaminants of concern at this site are semi-volatile organic compounds (SVOCs). Elevated levels of SVOCs above guidance levels have been found in site soils and have been addressed. The groundwater has not been impacted with SVOCs. This site does not present a significant threat to the environment."

Health Problem: "Public water is provided to the area, thereby preventing exposures via drinking water. Contaminated soil has been removed from the site. The site is being developed into commercial property, and the entire site will be covered with a building, paved parking areas, and

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

landscaped areas. All landscaped areas will include a minimum two feet clean soil cover. These measures will prevent direct contact to any residual contamination. A sub-slab depressurization system is part of the building's design to prevent infiltration of soil vapor."

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:07:61. / 75:56:79.3
Dell: False
Record Add: 2004-04-01 12:53:00
Record Upd: 2009-04-02 14:34:00
Updated By: MOBARRIE
Own Op: 1
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: 01
Owner Name: Marc Newman
Owner Company: Stella Ireland Road Associates
Owner Address: 300 Plaza Drive
Owner Addr2: PO Box 678
Owner City,St,Zip: Vestal, NY 13851
Owner Country: United States of America
Own Op: 6
Sub Type: C01
Owner Name: Kevin McLaughlin
Owner Company: Broome County Industrial Development Agency
Owner Address: Edwin L. Cawford County Office Building
Owner Addr2: 60 Hawley Street, 5th Floor, P.O. Box 1510
Owner City,St,Zip: Binghamton, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: E
Owner Name: Not reported
Owner Company: GANNETT SATELLITE INFORMATION NETWORK, INC.
Owner Address: 7950 JONES BRANCH DRIVE
Owner Addr2: Not reported
Owner City,St,Zip: MCLEAN, VA 22107
Owner Country: United States of America
Own Op: 6
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
HW Code: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Waste Type: Not reported
Waste Quantity: Not reported
Waste Code: Not reported
Crossref ID: E704040
Cross Ref Type Code:
Cross Ref Type: ERP Site ID
Record Added Date: 2007-11-05 16:56:00
Record Updated: 2007-11-05 16:56:00
Updated By: DMMOLOUG
Crossref ID: V00727
Cross Ref Type Code:
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 17:00:00
Record Updated: 2007-11-05 17:00:00
Updated By: DMMOLOUG
Crossref ID: V00726
Cross Ref Type Code:
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 16:59:00
Record Updated: 2007-11-05 16:59:00
Updated By: DMMOLOUG
Crossref ID: C704048
Cross Ref Type Code:
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: C704042
Cross Ref Type Code:
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: B7-0654-04-01
Cross Ref Type Code:
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 2009-06-02 09:01:00
Record Updated: 2009-06-02 09:01:00
Updated By: THKNIZEK

Name: FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG.
Address: 10 GANNETT DRIVE
City,State,Zip: JOHNSON CITY (V), NY 13790
Site Code: 58444
Control Name: Soil Management Plan
HW Code: C704041
Control Code: 14
Control Type: INST
Dt record added: 01/05/2007
Dt rec updated: 10/28/2022
Updated By: GWPRISCO
Site Code: 58444
Site Description: "The Former Ranger Paracord - Northeastern Segment is located in an urban portion of Broome County, NY. The street address is 10 Gannett Drive, Village of Johnson City. The main site features included large abandoned buildings surrounded by parking areas and roadways. All of the buildings have been removed from the site. The surrounding

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

adjacent parcels are a mix of commercial and residential use. Contamination of the site is believed to be associated with oils from machinery used to manufacture shoes. An investigation report was approved in 2004. Remedial measures have been completed consistent with approved work plans. An environmental easement was filed on 11/8/2006 and the Certificate of Completion was issued on 12/22/06. "

Env Problem: "The primary contaminants of concern at this site are semi-volatile organic compounds (SVOCs). Elevated levels of SVOCs above guidance levels have been found in site soils and have been addressed. The groundwater has not been impacted with SVOCs. This site does not present a significant threat to the environment."

Health Problem: "Public water is provided to the area, thereby preventing exposures via drinking water. Contaminated soil has been removed from the site. The site is being developed into commercial property, and the entire site will be covered with a building, paved parking areas, and landscaped areas. All landscaped areas will include a minimum two feet clean soil cover. These measures will prevent direct contact to any residual contamination. A sub-slab depressurization system is part of the building's design to prevent infiltration of soil vapor."

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:07:61. / 75:56:79.3
Dell: False
Record Add: 2004-04-01 12:53:00
Record Upd: 2009-04-02 14:34:00
Updated By: MOBARRIE
Own Op: 1
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: 01
Owner Name: Marc Newman
Owner Company: Stella Ireland Road Associates
Owner Address: 300 Plaza Drive
Owner Addr2: PO Box 678
Owner City,St,Zip: Vestal, NY 13851
Owner Country: United States of America
Own Op: 6
Sub Type: C01
Owner Name: Kevin McLaughlin
Owner Company: Broome County Industrial Development Agency
Owner Address: Edwin L. Cawford County Office Building
Owner Addr2: 60 Hawley Street, 5th Floor, P.O. Box 1510
Owner City,St,Zip: Binghamton, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: E

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Owner Name: Not reported
Owner Company: GANNETT SATELLITE INFORMATION NETWORK, INC.
Owner Address: 7950 JONES BRANCH DRIVE
Owner Addr2: Not reported
Owner City,St,Zip:MCLEAN, VA 22107
Owner Country: United States of America
Own Op: 6
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip:Vestal, NY 13902
Owner Country: United States of America
HW Code: Not reported
Waste Type: Not reported
Waste Quantity: Not reported
Waste Code: Not reported
Crossref ID: E704040
Cross Ref Type Code:
Cross Ref Type: ERP Site ID
Record Added Date: 2007-11-05 16:56:00
Record Updated: 2007-11-05 16:56:00
Updated By: DMMOLOUG
Crossref ID: V00727
Cross Ref Type Code:
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 17:00:00
Record Updated: 2007-11-05 17:00:00
Updated By: DMMOLOUG
Crossref ID: V00726
Cross Ref Type Code:
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 16:59:00
Record Updated: 2007-11-05 16:59:00
Updated By: DMMOLOUG
Crossref ID: C704048
Cross Ref Type Code:
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: C704042
Cross Ref Type Code:
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: B7-0654-04-01
Cross Ref Type Code:
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 2009-06-02 09:01:00
Record Updated: 2009-06-02 09:01:00
Updated By: THKNIZEK

Name: FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG.
Address: 10 GANNETT DRIVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

City,State,Zip: JOHNSON CITY (V), NY 13790
Site Code: 58444
Control Name: Landuse Restriction
HW Code: C704041
Control Code: 25
Control Type: INST
Dt record added: 01/05/2007
Dt rec updated: 10/28/2022
Updated By: GWPRISCO
Site Code: 58444
Site Description: "The Former Ranger Paracord - Northeastern Segment is located in an urban portion of Broome County, NY. The street address is 10 Gannett Drive, Village of Johnson City. The main site features included large abandoned buildings surrounded by parking areas and roadways. All of the buildings have been removed from the site. The surrounding adjacent parcels are a mix of commercial and residential use. Contamination of the site is believed to be associated with oils from machinery used to manufacture shoes. An investigation report was approved in 2004. Remedial measures have been completed consistant with approved work plans. An environmetal easement was filed on 11/8/2006 and the Certificate of Completion was issued on 12/22/06. "
Env Problem: "The primary contaminants of concern at this site are semi-volitale organic compounds (SVOCs). Elevated levels of SVOCs above guidance levels have been found in site soils and have been addressed. The groundwater has not been impacted with SVOCs. This site does not present a significant threat to the environment."
Health Problem: "Public water is provided to the area, thereby preventing exposures via drinking water. Contaminated soil has been removed from the site. The site is being developed into commercial property, and the entire site will be covered with a building, paved parking areas, and landscaped areas. All landscaped areas will include a minimum two feet clean soil cover. These measures will prevent direct contact to any residual contamination. A sub-slab depressurization system is part of the building's design to prevent infiltration of soil vapor."
Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:07:61. / 75:56:79.3
Dell: False
Record Add: 2004-04-01 12:53:00
Record Upd: 2009-04-02 14:34:00
Updated By: MOBARRIE
Own Op: 1
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: 01
Owner Name: Marc Newman

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Owner Company: Stella Ireland Road Associates
Owner Address: 300 Plaza Drive
Owner Addr2: PO Box 678
Owner City,St,Zip: Vestal, NY 13851
Owner Country: United States of America
Own Op: 6
Sub Type: C01
Owner Name: Kevin McLaughlin
Owner Company: Broome County Industrial Development Agency
Owner Address: Edwin L. Cawford County Office Building
Owner Addr2: 60 Hawley Street, 5th Floor, P.O. Box 1510
Owner City,St,Zip: Binghamton, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: E
Owner Name: Not reported
Owner Company: GANNETT SATELLITE INFORMATION NETWORK, INC.
Owner Address: 7950 JONES BRANCH DRIVE
Owner Addr2: Not reported
Owner City,St,Zip: MCLEAN, VA 22107
Owner Country: United States of America
Own Op: 6
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
HW Code: Not reported
Waste Type: Not reported
Waste Quantity: Not reported
Waste Code: Not reported
Crossref ID: E704040
Cross Ref Type Code: 001
Cross Ref Type: ERP Site ID
Record Added Date: 2007-11-05 16:56:00
Record Updated: 2007-11-05 16:56:00
Updated By: DMMOLOUG
Crossref ID: V00727
Cross Ref Type Code: 001
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 17:00:00
Record Updated: 2007-11-05 17:00:00
Updated By: DMMOLOUG
Crossref ID: V00726
Cross Ref Type Code: 001
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 16:59:00
Record Updated: 2007-11-05 16:59:00
Updated By: DMMOLOUG
Crossref ID: C704048
Cross Ref Type Code: 002
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Crossref ID: C704042
Cross Ref Type Code:
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: B7-0654-04-01
Cross Ref Type Code:
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 2009-06-02 09:01:00
Record Updated: 2009-06-02 09:01:00
Updated By: THKNIZEK

Name: FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG.
Address: 10 GANNETT DRIVE
City,State,Zip: JOHNSON CITY (V), NY 13790
Site Code: 58444
Control Name: Environmental Easement
HW Code: C704041
Control Code: J
Control Type: INST
Dt record added: 01/05/2007
Dt rec updated: 10/28/2022
Updated By: GWPRISCO
Site Code: 58444

Site Description: "The Former Ranger Paracord - Northeastern Segment is located in an urban portion of Broome County, NY. The street address is 10 Gannett Drive, Village of Johnson City. The main site features included large abandoned buildings surrounded by parking areas and roadways. All of the buildings have been removed from the site. The surrounding adjacent parcels are a mix of commercial and residential use. Contamination of the site is believed to be associated with oils from machinery used to manufacture shoes. An investigation report was approved in 2004. Remedial measures have been completed consistent with approved work plans. An environmental easement was filed on 11/8/2006 and the Certificate of Completion was issued on 12/22/06. "

Env Problem: "The primary contaminants of concern at this site are semi-volatile organic compounds (SVOCs). Elevated levels of SVOCs above guidance levels have been found in site soils and have been addressed. The groundwater has not been impacted with SVOCs. This site does not present a significant threat to the environment."

Health Problem: "Public water is provided to the area, thereby preventing exposures via drinking water. Contaminated soil has been removed from the site. The site is being developed into commercial property, and the entire site will be covered with a building, paved parking areas, and landscaped areas. All landscaped areas will include a minimum two feet clean soil cover. These measures will prevent direct contact to any residual contamination. A sub-slab depressurization system is part of the building's design to prevent infiltration of soil vapor."

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:07:61. / 75:56:79.3

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Dell: False
Record Add: 2004-04-01 12:53:00
Record Upd: 2009-04-02 14:34:00
Updated By: MOBARRIE
Own Op: 1
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: 01
Owner Name: Marc Newman
Owner Company: Stella Ireland Road Associates
Owner Address: 300 Plaza Drive
Owner Addr2: PO Box 678
Owner City,St,Zip: Vestal, NY 13851
Owner Country: United States of America
Own Op: 6
Sub Type: C01
Owner Name: Kevin McLaughlin
Owner Company: Broome County Industrial Development Agency
Owner Address: Edwin L. Cawford County Office Building
Owner Addr2: 60 Hawley Street, 5th Floor, P.O. Box 1510
Owner City,St,Zip: Binghamton, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: E
Owner Name: Not reported
Owner Company: GANNETT SATELLITE INFORMATION NETWORK, INC.
Owner Address: 7950 JONES BRANCH DRIVE
Owner Addr2: Not reported
Owner City,St,Zip: MCLEAN, VA 22107
Owner Country: United States of America
Own Op: 6
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
HW Code: Not reported
Waste Type: Not reported
Waste Quantity: Not reported
Waste Code: Not reported
Crossref ID: E704040
Cross Ref Type Code:
Cross Ref Type: ERP Site ID
Record Added Date: 2007-11-05 16:56:00
Record Updated: 2007-11-05 16:56:00
Updated By: DMMOLOUG
Crossref ID: V00727
Cross Ref Type Code:
Cross Ref Type: VCP Site ID

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Record Added Date: 2007-11-05 17:00:00
Record Updated: 2007-11-05 17:00:00
Updated By: DMMOLOUG
Crossref ID: V00726
Cross Ref Type Code:
Cross Ref Type: VCP Site ID
Record Added Date: 2007-11-05 16:59:00
Record Updated: 2007-11-05 16:59:00
Updated By: DMMOLOUG
Crossref ID: C704048
Cross Ref Type Code:
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: C704042
Cross Ref Type Code:
Cross Ref Type: BCP Site ID
Record Added Date: 2007-11-05 16:58:00
Record Updated: 2007-11-05 16:58:00
Updated By: DMMOLOUG
Crossref ID: B7-0654-04-01
Cross Ref Type Code:
Cross Ref Type: Agreement/Consent Order Number
Record Added Date: 2009-06-02 09:01:00
Record Updated: 2009-06-02 09:01:00
Updated By: THKNIZEK

BROWNFIELDS:

Name: FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG.
Address: 10 GANNETT DRIVE
City,State,Zip: JOHNSON CITY (V), NY 13790
Program: BCP
Site Code: 58444
Acres: 10.360
HW Code: C704041
SWIS: 0446
Town: Union
Record Added Date: 04/01/2004
Record Updated Date: 05/18/2022
Update By: GWPRISCO
Site Description: "The Former Ranger Paracord - Northeastern Segment is located in an urban portion of Broome County, NY. The street address is 10 Gannett Drive, Village of Johnson City. The main site features included large abandoned buildings surrounded by parking areas and roadways. All of the buildings have been removed from the site. The surrounding adjacent parcels are a mix of commercial and residential use. Contamination of the site is believed to be associated with oils from machinery used to manufacture shoes. An investigation report was approved in 2004. Remedial measures have been completed consistent with approved work plans. An environmental easement was filed on 11/8/2006 and the Certificate of Completion was issued on 12/22/06. "

Env Problem:

"The primary contaminants of concern at this site are semi-volatile organic compounds (SVOCs). Elevated levels of SVOCs above guidance levels have been found in site soils and have been addressed. The groundwater has not been impacted with SVOCs. This site does not present a significant threat to the environment."

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Health Problem: "Public water is provided to the area, thereby preventing exposures via drinking water. Contaminated soil has been removed from the site. The site is being developed into commercial property, and the entire site will be covered with a building, paved parking areas, and landscaped areas. All landscaped areas will include a minimum two feet clean soil cover. These measures will prevent direct contact to any residual contamination. A sub-slab depressurization system is part of the building's design to prevent infiltration of soil vapor."

Dump: False
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: Not reported
Disp Term: Not reported
Lat/Long: 42:07:61. / 75:56:79.3
Dell: False
Record Add: 2004-04-01 12:53:00
Record Upd: 2009-04-02 14:34:00
Updated By: MOBARRIE
Own Op: 1
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East
Owner Addr2: Not reported
Owner City,St,Zip: Vestal, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: 01
Owner Name: Marc Newman
Owner Company: Stella Ireland Road Associates
Owner Address: 300 Plaza Drive
Owner Addr2: PO Box 678
Owner City,St,Zip: Vestal, NY 13851
Owner Country: United States of America
Own Op: 6
Sub Type: C01
Owner Name: Kevin McLaughlin
Owner Company: Broome County Industrial Development Agency
Owner Address: Edwin L. Cawford County Office Building
Owner Addr2: 60 Hawley Street, 5th Floor, P.O. Box 1510
Owner City,St,Zip: Binghamton, NY 13902
Owner Country: United States of America
Own Op: 6
Sub Type: E
Owner Name: Not reported
Owner Company: GANNETT SATELLITE INFORMATION NETWORK, INC.
Owner Address: 7950 JONES BRANCH DRIVE
Owner Addr2: Not reported
Owner City,St,Zip: MCLEAN, VA 22107
Owner Country: United States of America
Own Op: 6
Sub Type: B99
Owner Name: Sheila Doyle
Owner Company: BFSS LLC
Owner Address: 4400 Vestal Parkway East

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

FORMER ENDICOTT JOHNSON-RANGER PARACORD, NE SEG. (Continued)

S108410665

Owner Addr2:	Not reported
Owner City,St,Zip:	Vestal, NY 13902
Owner Country:	United States of America
HW Code:	Not reported
Waste Type:	Not reported
Waste Quantity:	Not reported
Waste Code:	Not reported
Crossref ID:	E704040
Cross Ref Type Code:	03
Cross Ref Type:	ERP Site ID
Record Added Date:	2007-11-05 16:56:00
Record Updated:	2007-11-05 16:56:00
Updated By:	DMMOLOUG
Crossref ID:	V00727
Cross Ref Type Code:	04
Cross Ref Type:	VCP Site ID
Record Added Date:	2007-11-05 17:00:00
Record Updated:	2007-11-05 17:00:00
Updated By:	DMMOLOUG
Crossref ID:	V00726
Cross Ref Type Code:	04
Cross Ref Type:	VCP Site ID
Record Added Date:	2007-11-05 16:59:00
Record Updated:	2007-11-05 16:59:00
Updated By:	DMMOLOUG
Crossref ID:	C704048
Cross Ref Type Code:	22
Cross Ref Type:	BCP Site ID
Record Added Date:	2007-11-05 16:58:00
Record Updated:	2007-11-05 16:58:00
Updated By:	DMMOLOUG
Crossref ID:	C704042
Cross Ref Type Code:	22
Cross Ref Type:	BCP Site ID
Record Added Date:	2007-11-05 16:58:00
Record Updated:	2007-11-05 16:58:00
Updated By:	DMMOLOUG
Crossref ID:	B7-0654-04-01
Cross Ref Type Code:	23
Cross Ref Type:	Agreement/Consent Order Number
Record Added Date:	2009-06-02 09:01:00
Record Updated:	2009-06-02 09:01:00
Updated By:	THKNIZEK

23
 NE
 1/4-1/2
 0.434 mi.
 2290 ft.

JOSE RIOS RESIDENCE
474 GLENWOOD RD
BINGHAMTON, NY

NY LTANKS S102448237
N/A

Relative:
Higher
Actual:
1351 ft.

LTANKS:
 Name: JOSE RIOS RESIDENCE
 Address: 474 GLENWOOD RD
 City,State,Zip: BINGHAMTON, NY
 Spill Number/Closed Date: 9611461 / 1997-06-18
 Facility ID: 9611461
 Site ID: 133204
 Spill Date: 1996-12-18

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JOSE RIOS RESIDENCE (Continued)

S102448237

Spill Cause: Tank Failure
Spill Source: Private Dwelling
Spill Class: D3
Cleanup Ceased: Not reported
SWIS: 0422
Investigator: PETERSON
Referred To: SHORT TERM
Reported to Dept: 1996-12-18
CID: 351
Water Affected: Not reported
Spill Notifier: Other
Last Inspection: Not reported
Recommended Penalty: False
Meets Standard: True
UST Involvement: False
Remediation Phase: 0
Date Entered In Computer: 1996-12-18
Spill Record Last Update: 1997-06-18
Spiller Name: JOSE RIOS
Spiller Company: JOSE RIOS RESIDENCE
Spiller Address: 474 GLENWOOD RD
Spiller County: 001
Spiller Contact: JOSE RIOS
Spiller Phone: (607) 729-6786
Spiller Extension: Not reported
DEC Region: 7
DER Facility ID: 114653
DEC Memo: "Prior to Sept, 2004 data translation this spill Lead_DEC Field was GPS "
Remarks: "AGWAY WAS ON SITE FOR AN UNRELATED PROBLEM AND FOUND THE GROUND AROUND THE AREA OF TANK SATURATED WITH OIL - TANK IS AN U/G 500 GAL TANK"

All Materials:
Site ID: 133204
Operable Unit ID: 1039492
Operable Unit: 01
Material ID: 556427
Material Code: 0001A
Material Name: #2 fuel oil
Case No.: Not reported
Material FA: Petroleum
Quantity: .00
Units: G
Recovered: .00
Resource Affected: Soil
Oxygenate: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

24
SSE
1/2-1
0.787 mi.
4154 ft.

GAF DUMP
CHARLES & SEYMOUR STREETS
BINGHAMTON, NY 13905

NY SHWS **S109059102**
N/A

Relative:
Lower

SHWS:

Actual:
857 ft.

Name: GAF DUMP
 Address: CHARLES & SEYMOUR STREETS
 City,State,Zip: BINGHAMTON, NY 13905
 Program: HW
 Site Code: 58895
 Classification: C
 Region: 7
 Acres: 2.000
 HW Code: 704011
 Record Add: 11/18/1999
 Record Upd: 02/13/2008
 Updated By: GATOWNSE

Site Description: "Gently sloping area: Mixed commercial, residential and industrial area Nearest water body: Chenango River, approximately 4500 feet east Nearest water supply: Johnson City wellfield, approximately 1.8 miles away The site is located at the east corner of Charles and Seymour Streets and is adjacent to the Spring Forest Cemetery. Approximately one-third of the site is covered by a paved parking lot. The property was allegedly used as a general industrial disposal area for the former GAF plant, currently owned by International Specialty Products, Inc. The site had also reportedly received laboratory research waste, but there are no records available to confirm this allegation. The property is fenced in and is currently overgrown with vegetation. A Phase I Investigation was completed in November of 1986, and a Phase II Investigation was completed in January of 1990. A Preliminary Site Assessment completed by the PRP in the fall of 1995 revealed elevated levels of PCBs (i.e., above 50 ppm) in site soils, but PCB contamination was not detected in the groundwater. Approximately 5-10 cubic yards of PCB-contaminated soil was removed, and the site was subsequently delisted from the Registry of Inactive Hazardous Waste Disposal Sites."

Env Problem: "A Preliminary Site Assessment (PSA) was completed in 1995, revealing elevated levels of PCBs (i.e., above 50 ppm)in site soils. PCB contamination was not detected in the groundwater, however."

Health Problem: "The property is fenced and substantially vegetated. Exposures are not expected because the contaminated soils were removed from the site, and municipal water serves the area."

Dump: False
 Structure: False
 Lagoon: False
 Landfill: True
 Pond: False
 Disp Start: 1940s
 Disp Term: about 1975
 Lat/Long: 42:06:44:0 / 75:55:46:0
 Dell: False
 Record Add: 1999-11-18 12:00:00
 Record Upd: 1999-11-18 12:00:00
 Updated By: INITIAL
 Own Op: 3
 Sub Type: NNN
 Owner Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GAF DUMP (Continued)

S109059102

Owner Company: GAF CORP.
Owner Address: Not reported
Owner Addr2: Not reported
Owner City,St,Zip: ZZ
Owner Country: United States of America
Own Op: 1
Sub Type: E
Owner Name: Not reported
Owner Company: GAF CORP.
Owner Address: 1361 ALPS ROAD
Owner Addr2: Not reported
Owner City,St,Zip: WAYNE, NJ 07470
Owner Country: United States of America
Own Op: 1
Sub Type: E
Owner Name: Not reported
Owner Company: International Specialty Products
Owner Address: 1361 ALPS ROAD
Owner Addr2: Not reported
Owner City,St,Zip: WAYNE, NJ 07470
Owner Country: United States of America
Own Op: 4
Sub Type: E
Owner Name: SPECIALTY INTERNATIONAL
Owner Company: GAF Corporation
Owner Address: 1361 ALPS ROAD
Owner Addr2: Not reported
Owner City,St,Zip: WAYNE, NJ 07470
Owner Country: United States of America
HW Code: 704011
Waste Type: PHOTO PROCESS WASTE (SILVER & CADMIUM)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 704011
Waste Type: LABORATORY RESEARCH WASTE
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: NYD002239465
Cross Ref Type Code: 05
Cross Ref Type: EPA Site ID
Record Added Date: 1999-11-18 12:00:00
Record Updated: 2001-05-10 16:31:00
Updated By: REGTRANS

Count: 9 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BINGHAMTON	S127086465	GARDEN PLOT DUMP	NORTH OF WEBSTER COURT		NY SWF/LF, NY PFAS
BINGHAMTON	S113916724	93 MAIN STREET AREA VAPOR GW	NORTH OF 93 MAIN STREET AREA	13905	NY SHWS
BROOME COUNTY	S113916671	VESTAL / ENDICOTT DRY CLEANER.	704035 VESTAL / ENDICOTT DRY C		NY SHWS
JOHNSON CITY	S100127617	AIRPORT ROAD	AIRPORT RD		NY LTANKS
JOHNSON CITY	S126022567	BALCH STREET DUMP SITE	E END OF BALCH ST		NY SWF/LF
JOHNSON CITY	S113917145	JOHNSON CITY WELLFIELD (DRY CLEANE	JOHNSON CITY WELLFIELD (DRY CL	13790	NY SHWS
JOHNSON CITY	S121988404	ENDICOTT JOHNSON	LESTER AVE.		NY LTANKS
JOHNSON CITY	S113922166	FORMER RANGER PARACORD SITE	LESTER AVENUE & CFJ BOULEVARD	13790	NY VCP
JOHNSON CITY	S126022837	DELLAPENNA DUMP #2	S SIDE OF HARRY L DR AT UNION/		NY SWF/LF

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/26/2023	Source: EPA
Date Data Arrived at EDR: 05/02/2023	Telephone: N/A
Date Made Active in Reports: 05/17/2023	Last EDR Contact: 07/06/2023
Number of Days to Update: 15	Next Scheduled EDR Contact: 10/09/2023
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/26/2023	Source: EPA
Date Data Arrived at EDR: 05/02/2023	Telephone: N/A
Date Made Active in Reports: 05/17/2023	Last EDR Contact: 07/06/2023
Number of Days to Update: 15	Next Scheduled EDR Contact: 10/09/2023
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: EPA
Telephone: N/A
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2023
Date Data Arrived at EDR: 03/28/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 06/23/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/26/2023	Source: EPA
Date Data Arrived at EDR: 05/02/2023	Telephone: 800-424-9346
Date Made Active in Reports: 05/17/2023	Last EDR Contact: 07/06/2023
Number of Days to Update: 15	Next Scheduled EDR Contact: 10/23/2023
	Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/06/2023	Source: EPA
Date Data Arrived at EDR: 03/09/2023	Telephone: 800-424-9346
Date Made Active in Reports: 03/20/2023	Last EDR Contact: 06/20/2023
Number of Days to Update: 11	Next Scheduled EDR Contact: 10/02/2023
	Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/06/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2023	Telephone: (212) 637-3660
Date Made Active in Reports: 03/20/2023	Last EDR Contact: 06/20/2023
Number of Days to Update: 11	Next Scheduled EDR Contact: 10/02/2023
	Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/06/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2023	Telephone: (212) 637-3660
Date Made Active in Reports: 03/20/2023	Last EDR Contact: 06/20/2023
Number of Days to Update: 11	Next Scheduled EDR Contact: 10/02/2023
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/06/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2023	Telephone: (212) 637-3660
Date Made Active in Reports: 03/20/2023	Last EDR Contact: 06/20/2023
Number of Days to Update: 11	Next Scheduled EDR Contact: 10/02/2023
	Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/06/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2023	Telephone: (212) 637-3660
Date Made Active in Reports: 03/20/2023	Last EDR Contact: 06/20/2023
Number of Days to Update: 11	Next Scheduled EDR Contact: 10/02/2023
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/08/2023	Source: Department of the Navy
Date Data Arrived at EDR: 02/09/2023	Telephone: 843-820-7326
Date Made Active in Reports: 05/02/2023	Last EDR Contact: 05/23/2023
Number of Days to Update: 82	Next Scheduled EDR Contact: 08/21/2023
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/20/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/21/2023	Telephone: 703-603-0695
Date Made Active in Reports: 05/02/2023	Last EDR Contact: 05/23/2023
Number of Days to Update: 70	Next Scheduled EDR Contact: 09/04/2023
	Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/20/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/21/2023	Telephone: 703-603-0695
Date Made Active in Reports: 05/02/2023	Last EDR Contact: 05/23/2023
Number of Days to Update: 70	Next Scheduled EDR Contact: 09/04/2023
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/20/2023

Date Data Arrived at EDR: 03/21/2023

Date Made Active in Reports: 05/30/2023

Number of Days to Update: 70

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 06/20/2023

Next Scheduled EDR Contact: 10/02/2023

Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

SHWS: Inactive Hazardous Waste Disposal Sites in New York State

Referred to as the State Superfund Program, the Inactive Hazardous Waste Disposal Site Remedial Program is the cleanup program for inactive hazardous waste sites and now includes hazardous substance sites

Date of Government Version: 02/06/2023

Date Data Arrived at EDR: 02/07/2023

Date Made Active in Reports: 04/24/2023

Number of Days to Update: 76

Source: Department of Environmental Conservation

Telephone: 518-402-9622

Last EDR Contact: 05/05/2023

Next Scheduled EDR Contact: 08/21/2023

Data Release Frequency: Annually

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: Facility Register

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/31/2023

Date Data Arrived at EDR: 04/04/2023

Date Made Active in Reports: 06/21/2023

Number of Days to Update: 78

Source: Department of Environmental Conservation

Telephone: 518-402-8678

Last EDR Contact: 06/22/2023

Next Scheduled EDR Contact: 10/09/2023

Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/26/2023

Date Data Arrived at EDR: 05/09/2023

Date Made Active in Reports: 07/14/2023

Number of Days to Update: 66

Source: EPA Region 6

Telephone: 214-665-6597

Last EDR Contact: 07/17/2023

Next Scheduled EDR Contact: 10/30/2023

Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/20/2023

Date Data Arrived at EDR: 05/09/2023

Date Made Active in Reports: 07/14/2023

Number of Days to Update: 66

Source: EPA Region 1

Telephone: 617-918-1313

Last EDR Contact: 07/17/2023

Next Scheduled EDR Contact: 10/30/2023

Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/19/2023	Source: EPA Region 8
Date Data Arrived at EDR: 05/09/2023	Telephone: 303-312-6271
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 07/17/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/20/2023	Source: EPA Region 4
Date Data Arrived at EDR: 05/09/2023	Telephone: 404-562-8677
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 05/09/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/25/2023	Source: EPA Region 7
Date Data Arrived at EDR: 05/09/2023	Telephone: 913-551-7003
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 07/17/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/19/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/09/2023	Telephone: 415-972-3372
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 07/17/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/14/2023	Source: EPA, Region 5
Date Data Arrived at EDR: 05/09/2023	Telephone: 312-886-7439
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 07/17/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/20/2023	Source: EPA Region 10
Date Data Arrived at EDR: 05/09/2023	Telephone: 206-553-2857
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 07/17/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

LTANKS: Spills Information Database

Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills.

Date of Government Version: 02/06/2023	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 02/07/2023	Telephone: 518-402-9549
Date Made Active in Reports: 02/09/2023	Last EDR Contact: 05/05/2023
Number of Days to Update: 2	Next Scheduled EDR Contact: 08/21/2023
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST LTANKS: Listing of Leaking Storage Tanks

A listing of leaking underground and aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills. In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY LTANKS database. Department of Environmental Conservation.

Date of Government Version: 01/01/2002	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 07/08/2005	Telephone: 518-402-9549
Date Made Active in Reports: 07/14/2005	Last EDR Contact: 07/07/2005
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 03/08/2023	Source: FEMA
Date Data Arrived at EDR: 03/09/2023	Telephone: 202-646-5797
Date Made Active in Reports: 05/30/2023	Last EDR Contact: 06/27/2023
Number of Days to Update: 82	Next Scheduled EDR Contact: 10/16/2023
	Data Release Frequency: Varies

UST: Petroleum Bulk Storage (PBS) Database

Facilities that have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons.

Date of Government Version: 02/14/2023	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 03/21/2023	Telephone: 518-402-9549
Date Made Active in Reports: 06/02/2023	Last EDR Contact: 06/20/2023
Number of Days to Update: 73	Next Scheduled EDR Contact: 10/02/2023
	Data Release Frequency: No Update Planned

CBS UST: Chemical Bulk Storage Database

Facilities that store regulated hazardous substances in underground tanks of any size

Date of Government Version: 01/01/2002	Source: NYSDEC
Date Data Arrived at EDR: 02/20/2002	Telephone: 518-402-9549
Date Made Active in Reports: 03/22/2002	Last EDR Contact: 10/24/2005
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/23/2006
	Data Release Frequency: No Update Planned

MOSF UST: Major Oil Storage Facilities Database

Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002	Source: NYSDEC
Date Data Arrived at EDR: 02/20/2002	Telephone: 518-402-9549
Date Made Active in Reports: 03/22/2002	Last EDR Contact: 07/25/2005
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/24/2005
	Data Release Frequency: No Update Planned

CBS: Chemical Bulk Storage Site Listing

These facilities store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size

Date of Government Version: 02/14/2023	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 03/21/2023	Telephone: 518-402-9549
Date Made Active in Reports: 06/02/2023	Last EDR Contact: 06/20/2023
Number of Days to Update: 73	Next Scheduled EDR Contact: 10/02/2023
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MOSF: Major Oil Storage Facility Site Listing

These facilities may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 02/14/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 06/02/2023
Number of Days to Update: 73

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

AST: Petroleum Bulk Storage

Registered Aboveground Storage Tanks.

Date of Government Version: 02/14/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 06/02/2023
Number of Days to Update: 73

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: No Update Planned

CBS AST: Chemical Bulk Storage Database

Facilities that store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

MOSF AST: Major Oil Storage Facilities Database

Facilities that may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 02/20/2002
Date Made Active in Reports: 03/22/2002
Number of Days to Update: 30

Source: NYSDEC
Telephone: 518-402-9549
Last EDR Contact: 07/25/2005
Next Scheduled EDR Contact: 10/24/2005
Data Release Frequency: No Update Planned

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/20/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/19/2023
Date Data Arrived at EDR: 05/09/2023
Date Made Active in Reports: 07/14/2023
Number of Days to Update: 66

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/17/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/20/2023	Source: EPA Region 8
Date Data Arrived at EDR: 05/09/2023	Telephone: 303-312-6137
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 07/17/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/25/2023	Source: EPA Region 7
Date Data Arrived at EDR: 05/09/2023	Telephone: 913-551-7003
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 07/17/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/20/2023	Source: EPA Region 10
Date Data Arrived at EDR: 05/09/2023	Telephone: 206-553-2857
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 07/17/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/20/2023	Source: EPA, Region 1
Date Data Arrived at EDR: 05/09/2023	Telephone: 617-918-1313
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 07/17/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/26/2023	Source: EPA Region 6
Date Data Arrived at EDR: 05/09/2023	Telephone: 214-665-7591
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 07/17/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/14/2023	Source: EPA Region 5
Date Data Arrived at EDR: 05/09/2023	Telephone: 312-886-6136
Date Made Active in Reports: 07/14/2023	Last EDR Contact: 07/17/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TANKS: Storage Tank Facility Listing

This database contains records of facilities that are or have been regulated under Bulk Storage Program. Tank information for these facilities may not be releasable by the state agency.

Date of Government Version: 02/14/2023	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 03/21/2023	Telephone: 518-402-9543
Date Made Active in Reports: 06/02/2023	Last EDR Contact: 06/20/2023
Number of Days to Update: 73	Next Scheduled EDR Contact: 10/02/2023
	Data Release Frequency: Quarterly

State and tribal institutional control / engineering control registries

RES DECL: Restrictive Declarations Listing

A restrictive declaration is a covenant running with the land which binds the present and future owners of the property. As a condition of certain special permits, the City Planning Commission may require an applicant to sign and record a restrictive declaration that places specified conditions on the future use and development of the property. Certain restrictive declarations are indicated by a D on zoning maps.

Date of Government Version: 09/27/2022	Source: NYC Department of City Planning
Date Data Arrived at EDR: 12/12/2022	Telephone: 212-720-3401
Date Made Active in Reports: 03/06/2023	Last EDR Contact: 06/14/2023
Number of Days to Update: 84	Next Scheduled EDR Contact: 09/25/2023
	Data Release Frequency: Varies

ENV RES DECL: Environmental Restrictive Declarations

The Environmental Restrictive Declarations (ERD) listed were recorded in connection with a zoning action against the noted Tax Blocks and Tax Lots, or portion thereof, and are available in the property records on file at the Office of the City Register for Bronx, Kings, New York and Queens counties or at the Richmond County Clerk's office. They contain environmental requirements with respect to hazardous materials, air quality and/or noise in accordance with Section 11-15 of this Resolution.

Date of Government Version: 09/27/2022	Source: New York City Department of City Planning
Date Data Arrived at EDR: 03/21/2023	Telephone: 212-720-3300
Date Made Active in Reports: 06/02/2023	Last EDR Contact: 06/12/2023
Number of Days to Update: 73	Next Scheduled EDR Contact: 09/25/2023
	Data Release Frequency: Varies

ENG CONTROLS: Registry of Engineering Controls

Environmental Remediation sites that have engineering controls in place.

Date of Government Version: 02/06/2023	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 02/07/2023	Telephone: 518-402-9553
Date Made Active in Reports: 04/24/2023	Last EDR Contact: 05/05/2023
Number of Days to Update: 76	Next Scheduled EDR Contact: 08/21/2023
	Data Release Frequency: Quarterly

INST CONTROL: Registry of Institutional Controls

Environmental Remediation sites that have institutional controls in place.

Date of Government Version: 02/06/2023	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 02/07/2023	Telephone: 518-402-9553
Date Made Active in Reports: 04/24/2023	Last EDR Contact: 05/05/2023
Number of Days to Update: 76	Next Scheduled EDR Contact: 08/21/2023
	Data Release Frequency: Quarterly

Lists of state and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Agreements

New York established its Voluntary Cleanup Program (VCP) to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The Voluntary Cleanup Program was developed to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfield" sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/06/2023
Date Data Arrived at EDR: 02/07/2023
Date Made Active in Reports: 04/24/2023
Number of Days to Update: 76

Source: Department of Environmental Conservation
Telephone: 518-402-9711
Last EDR Contact: 05/05/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Semi-Annually

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/13/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP NYC: Voluntary Cleanup Program Listing NYC

New York City voluntary cleanup program sites.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/08/2023
Date Made Active in Reports: 05/25/2023
Number of Days to Update: 78

Source: New York City Office of Environmental Protection
Telephone: 212-788-8841
Last EDR Contact: 06/06/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Brownfields Site List

A Brownfield is any real property where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant.

Date of Government Version: 02/06/2023
Date Data Arrived at EDR: 02/07/2023
Date Made Active in Reports: 04/24/2023
Number of Days to Update: 76

Source: Department of Environmental Conservation
Telephone: 518-402-9764
Last EDR Contact: 05/05/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Semi-Annually

ERP: Environmental Restoration Program Listing

In an effort to spur the cleanup and redevelopment of brownfields, New Yorkers approved a \$200 million Environmental Restoration or Brownfields Fund as part of the \$1.75 billion Clean Water/Clean Air Bond Act of 1996 (1996 Bond Act). Enhancements to the program were enacted on October 7, 2003. Under the Environmental Restoration Program, the State provides grants to municipalities to reimburse up to 90 percent of on-site eligible costs and 100% of off-site eligible costs for site investigation and remediation activities. Once remediated, the property may then be reused for commercial, industrial, residential or public use.

Date of Government Version: 02/06/2023
Date Data Arrived at EDR: 02/07/2023
Date Made Active in Reports: 04/24/2023
Number of Days to Update: 76

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 05/05/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 04/06/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/13/2023	Telephone: 202-566-2777
Date Made Active in Reports: 04/19/2023	Last EDR Contact: 06/08/2023
Number of Days to Update: 6	Next Scheduled EDR Contact: 09/25/2023
	Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Registered Recycling Facility List

A listing of recycling facilities.

Date of Government Version: 03/31/2023	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 04/04/2023	Telephone: 518-402-8678
Date Made Active in Reports: 06/21/2023	Last EDR Contact: 06/22/2023
Number of Days to Update: 78	Next Scheduled EDR Contact: 10/09/2023
	Data Release Frequency: Quarterly

SWTIRE: Registered Waste Tire Storage & Facility List

A listing of facilities registered to accept waste tires.

Date of Government Version: 02/27/2018	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 04/06/2018	Telephone: 518-402-8694
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 06/05/2023
Number of Days to Update: 63	Next Scheduled EDR Contact: 09/18/2023
	Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 04/19/2023
Number of Days to Update: 52	Next Scheduled EDR Contact: 08/07/2023
	Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/11/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/27/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/22/2023
Date Data Arrived at EDR: 05/23/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 48

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: No Update Planned

DEL SHWS: Delisted Registry Sites

A database listing of sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites.

Date of Government Version: 02/06/2023
Date Data Arrived at EDR: 02/07/2023
Date Made Active in Reports: 04/24/2023
Number of Days to Update: 76

Source: Department of Environmental Conservation
Telephone: 518-402-9622
Last EDR Contact: 05/05/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/22/2023
Date Data Arrived at EDR: 05/23/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 48

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/23/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

HIST UST: Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. It is no longer updated due to the sensitive nature of the information involved. See UST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST AST: Historical Petroleum Bulk Storage Database

These facilities have petroleum storage capabilities in excess of 1,100 gallons and less than 400,000 gallons. This database contains detailed information per site. No longer updated due to the sensitive nature of the information involved. See AST for more current data.

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 06/02/2006
Date Made Active in Reports: 07/20/2006
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 10/23/2006
Next Scheduled EDR Contact: 01/22/2007
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Spill Liens Information

Lien information from the Oil Spill Fund.

Date of Government Version: 02/01/2023
Date Data Arrived at EDR: 02/02/2023
Date Made Active in Reports: 04/25/2023
Number of Days to Update: 82

Source: Office of the State Comptroller
Telephone: 518-474-9034
Last EDR Contact: 04/27/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/26/2023
Date Data Arrived at EDR: 05/02/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/19/2023
Date Data Arrived at EDR: 03/21/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 70

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

SPILLS: Spills Information Database

Data collected on spills reported to NYSDEC as required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

Date of Government Version: 02/06/2023
Date Data Arrived at EDR: 02/07/2023
Date Made Active in Reports: 02/09/2023
Number of Days to Update: 2

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 05/05/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Varies

HIST SPILLS: SPILLS Database

This database contains records of chemical and petroleum spill incidents. Under State law, petroleum and hazardous chemical spills that can impact the waters of the state must be reported by the spiller (and, in some cases, by anyone who has knowledge of the spills). In 2002, the Department of Environmental Conservation stopped providing updates to its original Spills Information Database. This database includes fields that are no longer available from the NYDEC as of January 1, 2002. Current information may be found in the NY SPILLS database. Department of Environmental Conservation.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2002
Date Data Arrived at EDR: 07/08/2005
Date Made Active in Reports: 07/14/2005
Number of Days to Update: 6

Source: Department of Environmental Conservation
Telephone: 518-402-9549
Last EDR Contact: 07/07/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 12/14/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/12/2013
Number of Days to Update: 40

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 11/02/2010
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/07/2013
Number of Days to Update: 63

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: Environmental Protection Agency
Telephone: (212) 637-3660
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/08/2023
Date Data Arrived at EDR: 05/16/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 55

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/16/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/10/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 07/05/2023
Number of Days to Update: 574	Next Scheduled EDR Contact: 10/16/2023
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2023	Telephone: 615-532-8599
Date Made Active in Reports: 02/10/2023	Last EDR Contact: 05/11/2023
Number of Days to Update: 7	Next Scheduled EDR Contact: 08/21/2023
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/13/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2023	Telephone: 202-566-1917
Date Made Active in Reports: 05/30/2023	Last EDR Contact: 06/20/2023
Number of Days to Update: 70	Next Scheduled EDR Contact: 10/02/2023
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 05/01/2023
Number of Days to Update: 88	Next Scheduled EDR Contact: 08/14/2023
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/04/2023
Number of Days to Update: 73	Next Scheduled EDR Contact: 08/14/2023
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020	Source: EPA
Date Data Arrived at EDR: 06/14/2022	Telephone: 202-260-5521
Date Made Active in Reports: 03/24/2023	Last EDR Contact: 06/16/2023
Number of Days to Update: 283	Next Scheduled EDR Contact: 09/25/2023
	Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2021	Source: EPA
Date Data Arrived at EDR: 02/16/2023	Telephone: 202-566-0250
Date Made Active in Reports: 05/02/2023	Last EDR Contact: 05/19/2023
Number of Days to Update: 75	Next Scheduled EDR Contact: 08/28/2023
	Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 04/17/2023	Source: EPA
Date Data Arrived at EDR: 04/18/2023	Telephone: 202-564-4203
Date Made Active in Reports: 07/10/2023	Last EDR Contact: 04/18/2023
Number of Days to Update: 83	Next Scheduled EDR Contact: 07/31/2023
	Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/26/2023	Source: EPA
Date Data Arrived at EDR: 05/02/2023	Telephone: 703-416-0223
Date Made Active in Reports: 05/17/2023	Last EDR Contact: 07/06/2023
Number of Days to Update: 15	Next Scheduled EDR Contact: 09/11/2023
	Data Release Frequency: Annually

RMP: Risk Management Plans

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/27/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/04/2022	Telephone: 202-564-8600
Date Made Active in Reports: 05/10/2022	Last EDR Contact: 06/12/2023
Number of Days to Update: 6	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/26/2023	Source: EPA
Date Data Arrived at EDR: 05/02/2023	Telephone: 202-564-6023
Date Made Active in Reports: 05/17/2023	Last EDR Contact: 07/06/2023
Number of Days to Update: 15	Next Scheduled EDR Contact: 08/14/2023
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/20/2023	Source: EPA
Date Data Arrived at EDR: 04/04/2023	Telephone: 202-566-0500
Date Made Active in Reports: 06/09/2023	Last EDR Contact: 07/07/2023
Number of Days to Update: 66	Next Scheduled EDR Contact: 10/16/2023
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 06/27/2023
Number of Days to Update: 79	Next Scheduled EDR Contact: 10/16/2023
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/15/2023	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 03/21/2023	Telephone: 301-415-7169
Date Made Active in Reports: 05/30/2023	Last EDR Contact: 07/12/2023
Number of Days to Update: 70	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2021	Source: Department of Energy
Date Data Arrived at EDR: 04/14/2023	Telephone: 202-586-8719
Date Made Active in Reports: 07/10/2023	Last EDR Contact: 05/25/2023
Number of Days to Update: 87	Next Scheduled EDR Contact: 09/11/2023
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 05/25/2023
Number of Days to Update: 251	Next Scheduled EDR Contact: 09/11/2023
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/04/2023
Number of Days to Update: 96	Next Scheduled EDR Contact: 08/14/2023
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/22/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/25/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2023
Date Data Arrived at EDR: 04/20/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 81

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/20/2023
Next Scheduled EDR Contact: 10/02/2023
Data Release Frequency: Biennially

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 07/05/2023
Number of Days to Update: 546	Next Scheduled EDR Contact: 10/16/2023
	Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023	Source: Department of Energy
Date Data Arrived at EDR: 03/03/2023	Telephone: 202-586-3559
Date Made Active in Reports: 06/09/2023	Last EDR Contact: 04/26/2023
Number of Days to Update: 98	Next Scheduled EDR Contact: 08/14/2023
	Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019	Source: Department of Energy
Date Data Arrived at EDR: 11/15/2019	Telephone: 505-845-0011
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 05/24/2023
Number of Days to Update: 74	Next Scheduled EDR Contact: 08/28/2023
	Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/26/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/02/2023	Telephone: 703-603-8787
Date Made Active in Reports: 05/17/2023	Last EDR Contact: 07/06/2023
Number of Days to Update: 15	Next Scheduled EDR Contact: 10/09/2023
	Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 04/03/2023
Date Data Arrived at EDR: 04/04/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 66

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/02/2023
Date Data Arrived at EDR: 02/22/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/24/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 01/07/2022
Date Data Arrived at EDR: 02/24/2023
Date Made Active in Reports: 05/17/2023
Number of Days to Update: 82

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/17/2023
Date Data Arrived at EDR: 03/17/2023
Date Made Active in Reports: 05/30/2023
Number of Days to Update: 74

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/13/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/02/2023
Date Data Arrived at EDR: 02/28/2023
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 24

Source: EPA
Telephone: (212) 637-3000
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 03/25/2023
Date Data Arrived at EDR: 03/31/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 06/29/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 11/09/2021
Date Data Arrived at EDR: 10/20/2022
Date Made Active in Reports: 01/10/2023
Number of Days to Update: 82

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/15/2023
Date Data Arrived at EDR: 05/17/2023
Date Made Active in Reports: 07/10/2023
Number of Days to Update: 54

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/17/2023
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information

EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/07/2023
Date Data Arrived at EDR: 06/08/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 1

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information

Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/07/2023
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020
Date Data Arrived at EDR: 03/17/2021
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 601

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 04/20/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 05/02/2023
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/07/2023
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/03/2023
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS ECHO FIRE TRAINING: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilities name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/03/2023
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

PFAS PART 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration's document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 03/30/2023
Date Data Arrived at EDR: 03/30/2023
Date Made Active in Reports: 04/03/2023
Number of Days to Update: 4

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 04/27/2023	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/27/2023	Telephone: 202-272-0167
Date Made Active in Reports: 05/02/2023	Last EDR Contact: 07/06/2023
Number of Days to Update: 5	Next Scheduled EDR Contact: 10/16/2023
	Data Release Frequency: Varies

PFAS 2: New York State Inactive Landfill Initiative

A list of landfills that were investigated and the analytical results for PFOA and PFOS for those landfills. These data represent the landfills from the ILI database that were investigated.

Date of Government Version: 11/14/2022	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 01/12/2023	Telephone: 518-402-9662
Date Made Active in Reports: 01/23/2023	Last EDR Contact: 04/27/2023
Number of Days to Update: 11	Next Scheduled EDR Contact: 08/14/2023
	Data Release Frequency: Varies

PFAS: PFAS Contamination Site Location Listing

DEC surveyed select businesses, fire departments, fire training centers, bulk storage facilities, airports, and Department of Defense (DoD) facilities. The responses to the survey have helped to determine if these entities used or stored materials containing PFOA/PFOS including AFFF and dispersants used in Teflon coating operations. The results of this survey will be updated periodically as additional responses are received..

Date of Government Version: 01/16/2019	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 05/08/2019	Telephone: 518-402-9020
Date Made Active in Reports: 06/24/2019	Last EDR Contact: 05/04/2023
Number of Days to Update: 47	Next Scheduled EDR Contact: 08/14/2023
	Data Release Frequency: Varies

PFAS 3: PFAS Environmental Site Remediation List

Per- and Polyfluoroalkyl Substances (PFAS) are a group of chemicals used to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. Fluoropolymer coatings are blends of resins and lubricants used in products such as water-repellent clothing, furniture, adhesives, paint and varnish, food packaging, heat-resistant non-stick cooking surfaces and insulation of electrical wires. Chemicals in this group include perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS).

Date of Government Version: 02/06/2023	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 02/07/2023	Telephone: 518-402-9759
Date Made Active in Reports: 04/25/2023	Last EDR Contact: 05/05/2023
Number of Days to Update: 77	Next Scheduled EDR Contact: 08/21/2023
	Data Release Frequency: Varies

AIRS: Air Emissions Data

Point source emissions inventory data.

Date of Government Version: 02/14/2023	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 02/15/2023	Telephone: 518-402-8452
Date Made Active in Reports: 05/09/2023	Last EDR Contact: 07/12/2023
Number of Days to Update: 83	Next Scheduled EDR Contact: 10/30/2023
	Data Release Frequency: Annually

COAL ASH: Coal Ash Disposal Site Listing

A listing of coal ash disposal site locations.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/22/2023
Date Data Arrived at EDR: 03/24/2023
Date Made Active in Reports: 06/07/2023
Number of Days to Update: 75

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 06/22/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Quarterly

DRYCLEANERS: Registered Drycleaners

A listing of all registered drycleaning facilities.

Date of Government Version: 03/06/2023
Date Data Arrived at EDR: 03/08/2023
Date Made Active in Reports: 05/25/2023
Number of Days to Update: 78

Source: Department of Environmental Conservation
Telephone: 518-402-8403
Last EDR Contact: 05/31/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Annually

E DESIGNATION: E DESIGNATION SITE LISTING

The (E (Environmental)) designation would ensure that sampling and remediation take place on the subject properties, and would avoid any significant impacts related to hazardous materials at these locations. The (E) designations would require that the fee owner of the sites conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the NYCDEP before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). The (E) designations also include a mandatory construction-related health and safety plan which must be approved by NYCDEP.

Date of Government Version: 10/27/2022
Date Data Arrived at EDR: 12/12/2022
Date Made Active in Reports: 03/07/2023
Number of Days to Update: 85

Source: New York City Department of City Planning
Telephone: 718-595-6658
Last EDR Contact: 06/13/2023
Next Scheduled EDR Contact: 09/25/2023
Data Release Frequency: Semi-Annually

Financial Assurance 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 03/27/2023
Date Data Arrived at EDR: 03/29/2023
Date Made Active in Reports: 06/13/2023
Number of Days to Update: 76

Source: Department of Environmental Conservation
Telephone: 518-402-8660
Last EDR Contact: 06/22/2023
Next Scheduled EDR Contact: 10/09/2023
Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 07/31/2021
Date Data Arrived at EDR: 01/05/2023
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 78

Source: Department of Environmental Conservation
Telephone: 518-402-8712
Last EDR Contact: 05/31/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Varies

HSWDS: Hazardous Substance Waste Disposal Site Inventory

The list includes any known or suspected hazardous substance waste disposal sites. Also included are sites delisted from the Registry of Inactive Hazardous Waste Disposal Sites and non-Registry sites that U.S. EPA Preliminary Assessment (PA) reports or Site Investigation (SI) reports were prepared. Hazardous Substance Waste Disposal Sites are eligible to be Superfund sites now that the New York State Superfund has been refinanced and changed. This means that the study inventory has served its purpose and will no longer be maintained as a separate entity. The last version of the study inventory is frozen in time. The sites on the study will not automatically be made Superfund sites, rather each site will be further evaluated for listing on the Registry. So overtime they will be added to the registry or not.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2003
Date Data Arrived at EDR: 10/20/2006
Date Made Active in Reports: 11/30/2006
Number of Days to Update: 41

Source: Department of Environmental Conservation
Telephone: 518-402-9564
Last EDR Contact: 05/26/2009
Next Scheduled EDR Contact: 08/24/2009
Data Release Frequency: No Update Planned

NYC LEAD: Lead-based Paint Testing Results

The results of the inspections for all classrooms serving students under six in applicable buildings. Identifies all classrooms, whether there was observation of peeling paint, and if there was, standard response protocol was followed.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 02/01/2023
Date Made Active in Reports: 04/25/2023
Number of Days to Update: 83

Source: New York City Department of Education
Telephone: 212-374-5141
Last EDR Contact: 05/04/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

NYC LEAD 2: Recent Lead Paint Violations

Pursuant to New York City's Housing Maintenance Code, the Department of Housing Preservation and Development (HPD) issues violations against conditions in rental dwelling units that have been verified to violate the New York City Housing Maintenance Code (HMC) or the New York State Multiple Dwelling Law (MDL). Violations are issued when an inspection verifies that a violation of the HMC or MDL exists. It is closed when the violation is corrected, as observed/verified by HPD or as certified by the landlord.

Date of Government Version: 01/30/2023
Date Data Arrived at EDR: 02/01/2023
Date Made Active in Reports: 04/25/2023
Number of Days to Update: 83

Source: New York City Department of Housing Preservation & Development
Telephone: 212-863-8200
Last EDR Contact: 05/03/2023
Next Scheduled EDR Contact: 08/14/2023
Data Release Frequency: Varies

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 10/29/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 82

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/27/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Quarterly

SPDES: State Pollutant Discharge Elimination System

New York State has a state program which has been approved by the United States Environmental Protection Agency for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Under New York State law the program is known as the State Pollutant Discharge Elimination System (SPDES) and is broader in scope than that required by the Clean Water Act in that it controls point source discharges to groundwaters as well as surface waters.

Date of Government Version: 10/20/2022
Date Data Arrived at EDR: 11/09/2022
Date Made Active in Reports: 01/30/2023
Number of Days to Update: 82

Source: Department of Environmental Conservation
Telephone: 518-402-8233
Last EDR Contact: 07/12/2023
Next Scheduled EDR Contact: 10/30/2023
Data Release Frequency: No Update Planned

VAPOR REOPENED: Vapor Intrusion Legacy Site List

New York is currently re-evaluating previous assumptions and decisions regarding the potential for soil vapor intrusion exposures at sites. As a result, all past, current, and future contaminated sites will be evaluated to determine whether these sites have the potential for exposures related to soil vapor intrusion.

Date of Government Version: 01/01/2022
Date Data Arrived at EDR: 02/08/2022
Date Made Active in Reports: 05/06/2022
Number of Days to Update: 87

Source: Department of Environmental Conservation
Telephone: 518-402-9814
Last EDR Contact: 05/11/2023
Next Scheduled EDR Contact: 08/21/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC: Underground Injection Control Wells

A listing of enhanced oil recovery underground injection wells.

Date of Government Version: 02/26/2023
Date Data Arrived at EDR: 03/01/2023
Date Made Active in Reports: 05/19/2023
Number of Days to Update: 79

Source: Department of Environmental Conservation
Telephone: 518-402-8056
Last EDR Contact: 05/30/2023
Next Scheduled EDR Contact: 09/11/2023
Data Release Frequency: Quarterly

COOLING TOWERS: Registered Cooling Towers

This data includes the location of cooling towers registered with New York State. The data is self-reported by owners/property managers of cooling towers in service in New York State. In August 2015, the New York State Department of Health released emergency regulations requiring the owners of cooling towers to register them with New York State.

Date of Government Version: 04/04/2023
Date Data Arrived at EDR: 04/12/2023
Date Made Active in Reports: 06/28/2023
Number of Days to Update: 77

Source: Department of Health
Telephone: 518-402-7650
Last EDR Contact: 07/12/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: No Update Planned

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 08/23/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/28/2023
Number of Days to Update: 98

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/25/2023
Next Scheduled EDR Contact: 09/04/2023
Data Release Frequency: Varies

PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 06/07/2023
Date Data Arrived at EDR: 06/08/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 1

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 07/05/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Conservation in New York.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: Department of Environmental Conservation
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

CORTLAND COUNTY:

AST - CORTLAND: Cortland County Storage Tank Listing

A listing of aboveground storage tank sites located in Cortland County.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/16/2019
Number of Days to Update: 57

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 04/20/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Quarterly

UST - CORTLAND: Cortland County Storage Tank Listing

A listing of underground storage tank sites located in Cortland County.

Date of Government Version: 08/20/2019
Date Data Arrived at EDR: 08/20/2019
Date Made Active in Reports: 10/16/2019
Number of Days to Update: 57

Source: Cortland County Health Department
Telephone: 607-753-5035
Last EDR Contact: 04/20/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Quarterly

NASSAU COUNTY:

AST - NASSAU: Registered Tank Database

A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 02/15/2017
Number of Days to Update: 35

Source: Nassau County Health Department
Telephone: 516-571-3314
Last EDR Contact: 04/20/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: No Update Planned

AST NCFM: Storage Tank Database

A listing of aboveground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/29/2011
Number of Days to Update: 34

Source: Nassau County Office of the Fire Marshal
Telephone: 516-572-1000
Last EDR Contact: 04/20/2023
Next Scheduled EDR Contact: 08/07/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TANKS NASSAU: Registered Tank Database in Nassau County

A listing of facilities in Nassau County with storage tanks.

Date of Government Version: 01/09/2017	Source: Nassau County Department of Health
Date Data Arrived at EDR: 01/11/2017	Telephone: 516-227-9691
Date Made Active in Reports: 02/15/2017	Last EDR Contact: 04/20/2023
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/07/2023
	Data Release Frequency: Varies

UST - NASSAU: Registered Tank Database

A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 01/09/2017	Source: Nassau County Health Department
Date Data Arrived at EDR: 01/11/2017	Telephone: 516-571-3314
Date Made Active in Reports: 02/15/2017	Last EDR Contact: 04/20/2023
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/07/2023
	Data Release Frequency: No Update Planned

UST NCFM: Storage Tank Database

A listing of underground storage tank sites located in Nassau County.

Date of Government Version: 02/15/2011	Source: Nassau County Office of the Fire Marshal
Date Data Arrived at EDR: 02/23/2011	Telephone: 516-572-1000
Date Made Active in Reports: 03/29/2011	Last EDR Contact: 04/20/2023
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/07/2023
	Data Release Frequency: Varies

ROCKLAND COUNTY:

AST - ROCKLAND: Petroleum Bulk Storage Database

A listing of aboveground storage tank sites located in Rockland County. Rockland County's Petroleum Bulk Storage (PBS) program is no longer in service. All related operations/duties are now wholly overseen by the New York State Dept. of Environmental Conservation (NYSDEC).

Date of Government Version: 02/02/2017	Source: Rockland County Health Department
Date Data Arrived at EDR: 03/17/2017	Telephone: 914-364-2605
Date Made Active in Reports: 09/22/2017	Last EDR Contact: 05/23/2023
Number of Days to Update: 189	Next Scheduled EDR Contact: 09/11/2023
	Data Release Frequency: No Update Planned

UST - ROCKLAND: Petroleum Bulk Storage Database

A listing of underground storage tank sites located in Rockland County. Rockland County's Petroleum Bulk Storage (PBS) program is no longer in service. All related operations/duties are now wholly overseen by the New York State Dept. of Environmental Conservation (NYSDEC).

Date of Government Version: 02/02/2017	Source: Rockland County Health Department
Date Data Arrived at EDR: 03/17/2017	Telephone: 914-364-2605
Date Made Active in Reports: 09/22/2017	Last EDR Contact: 05/23/2023
Number of Days to Update: 189	Next Scheduled EDR Contact: 09/11/2023
	Data Release Frequency: No Update Planned

SUFFOLK COUNTY:

AST - SUFFOLK: Storage Tank Database

A listing of aboveground storage tank sites located in Suffolk County.

Date of Government Version: 06/28/2018	Source: Suffolk County Department of Health Services
Date Data Arrived at EDR: 12/06/2018	Telephone: 631-854-2521
Date Made Active in Reports: 02/07/2019	Last EDR Contact: 04/20/2023
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/07/2023
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TANKS SUFFOLK: Storage Tank Database

This county is not included in the state's database. These are facilities that have no tank information in the storage tank database.

Date of Government Version: 06/28/2018	Source: Department of Health Services
Date Data Arrived at EDR: 02/05/2019	Telephone: 631-854-2516
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 04/20/2023
Number of Days to Update: 31	Next Scheduled EDR Contact: 08/07/2023
	Data Release Frequency: Varies

UST - SUFFOLK: Storage Tank Database

A listing of underground storage tank sites located in Suffolk County.

Date of Government Version: 06/28/2018	Source: Suffolk County Department of Health Services
Date Data Arrived at EDR: 12/06/2018	Telephone: 631-854-2521
Date Made Active in Reports: 02/07/2019	Last EDR Contact: 04/20/2023
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/07/2023
	Data Release Frequency: No Update Planned

WESTCHESTER COUNTY:

AST - WESTCHESTER: Listing of Storage Tanks

A listing of aboveground storage tank sites located in Westchester County.

Date of Government Version: 02/09/2023	Source: Westchester County Department of Health
Date Data Arrived at EDR: 02/16/2023	Telephone: 914-813-5161
Date Made Active in Reports: 02/28/2023	Last EDR Contact: 04/26/2023
Number of Days to Update: 12	Next Scheduled EDR Contact: 08/07/2023
	Data Release Frequency: Semi-Annually

UST - WESTCHESTER: Listing of Storage Tanks

A listing of underground storage tank sites located in Westchester County.

Date of Government Version: 02/09/2023	Source: Westchester County Department of Health
Date Data Arrived at EDR: 02/16/2023	Telephone: 914-813-5161
Date Made Active in Reports: 02/28/2023	Last EDR Contact: 04/26/2023
Number of Days to Update: 12	Next Scheduled EDR Contact: 08/07/2023
	Data Release Frequency: Semi-Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/16/2022	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 11/16/2022	Telephone: 860-424-3375
Date Made Active in Reports: 02/06/2023	Last EDR Contact: 05/11/2023
Number of Days to Update: 82	Next Scheduled EDR Contact: 08/21/2023
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/27/2023
Next Scheduled EDR Contact: 10/16/2023
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/10/2022
Next Scheduled EDR Contact: 08/28/2023
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data

Hazardous waste manifest information.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/09/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 07/06/2023
Next Scheduled EDR Contact: 10/23/2023
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/01/2023
Next Scheduled EDR Contact: 09/18/2023
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Providers

Source: Department of Health

Telephone: 212-676-2444

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands

Source: Department of Environmental Conservation

Telephone: 518-402-8961

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

PARKING LOT RECONSTRUCTION
249 GLENWOOD ROAD
BINGHAMTON, NY 13905

TARGET PROPERTY COORDINATES

Latitude (North):	42.124961 - 42° 7' 29.86"
Longitude (West):	75.939143 - 75° 56' 20.91"
Universal Transverse Mercator:	Zone 18
UTM X (Meters):	422372.3
UTM Y (Meters):	4663863.5
Elevation:	1206 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	14121882 BINGHAMTON WEST, NY
Version Date:	2019
North Map:	14121892 CASTLE CREEK, NY
Version Date:	2019

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK[®] - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

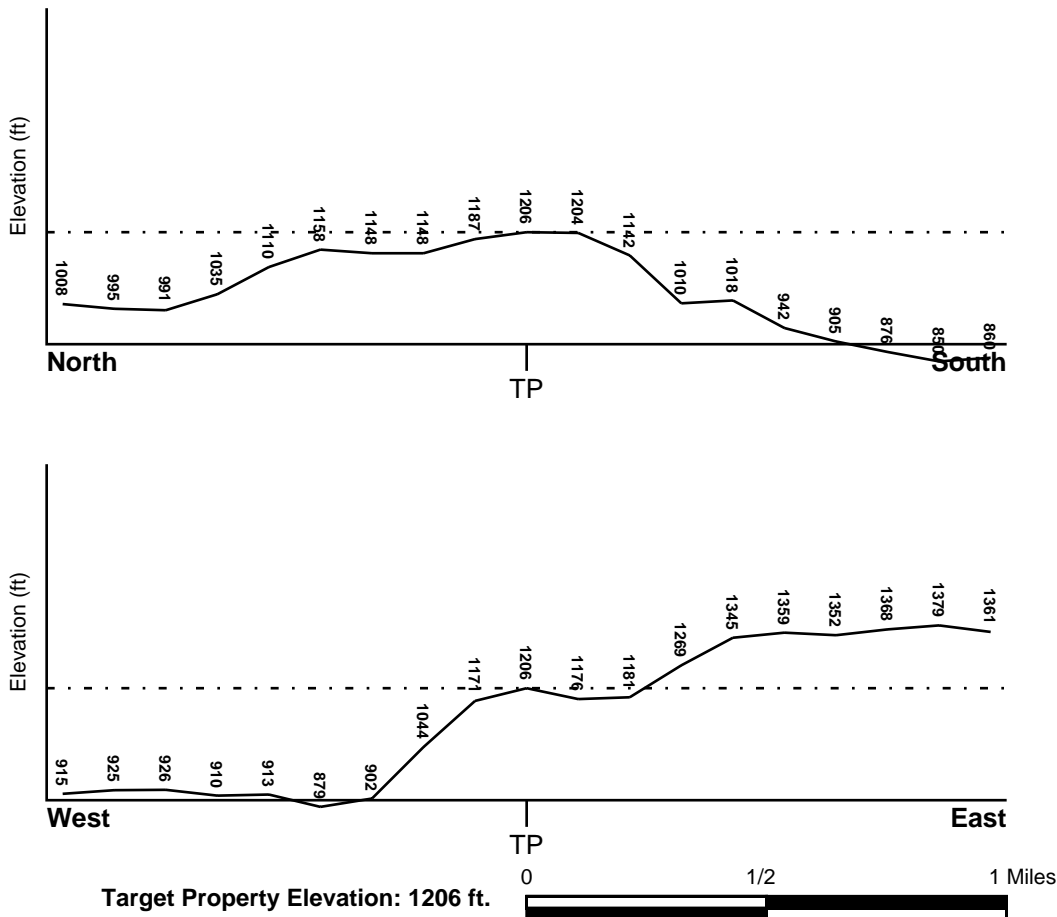
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
3600440001B	FEMA Q3 Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
3600400015C	FEMA Q3 Flood data
3600560010A	FEMA Q3 Flood data
3600470001B	FEMA Q3 Flood data
3600380001C	FEMA Q3 Flood data
3600380002C	FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
BINGHAMTON WEST	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era: Paleozoic
System: Devonian
Series: Upper Devonian
Code: D3 (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: MARDIN
Soil Surface Texture: channery - silt loam
Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class: Moderately well drained. Soils have a layer of low hydraulic conductivity, wet state high in the profile. Depth to water table is 3 to 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	8 inches	channery - silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 2.00 Min: 0.60	Max: 6.50 Min: 3.60
2	8 inches	15 inches	channery - silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.50 Min: 3.60
3	15 inches	60 inches	channery - loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.20 Min: 0.00	Max: 7.30 Min: 4.50
4	60 inches	70 inches	channery - loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.20 Min: 0.00	Max: 8.40 Min: 5.10

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinator soil types may appear within the general area of target property.

Soil Surface Textures: very stony - silt loam
gravelly - silt loam

Surficial Soil Types: very stony - silt loam
gravelly - silt loam

Shallow Soil Types: channery - loam
loam

Deeper Soil Types: flaggy - loam
unweathered bedrock
very channery - loam
very gravelly - fine sandy loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS40000850792	1/2 - 1 Mile WSW
2	USGS40000850802	1/2 - 1 Mile WSW
3	USGS40000850669	1/2 - 1 Mile South
4	USGS40000850706	1/2 - 1 Mile SW
A5	USGS40000850811	1/2 - 1 Mile WSW
A6	USGS40000850816	1/2 - 1 Mile West
A7	USGS40000850809	1/2 - 1 Mile WSW
8	USGS40000850594	1/2 - 1 Mile South
9	USGS40000850584	1/2 - 1 Mile SSE
B10	USGS40000850770	1/2 - 1 Mile WSW
B11	USGS40000850771	1/2 - 1 Mile WSW
C12	USGS40000850577	1/2 - 1 Mile SSE
D13	USGS40000850527	1/2 - 1 Mile South
D14	USGS40000850518	1/2 - 1 Mile South
C15	USGS40000850550	1/2 - 1 Mile SSE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

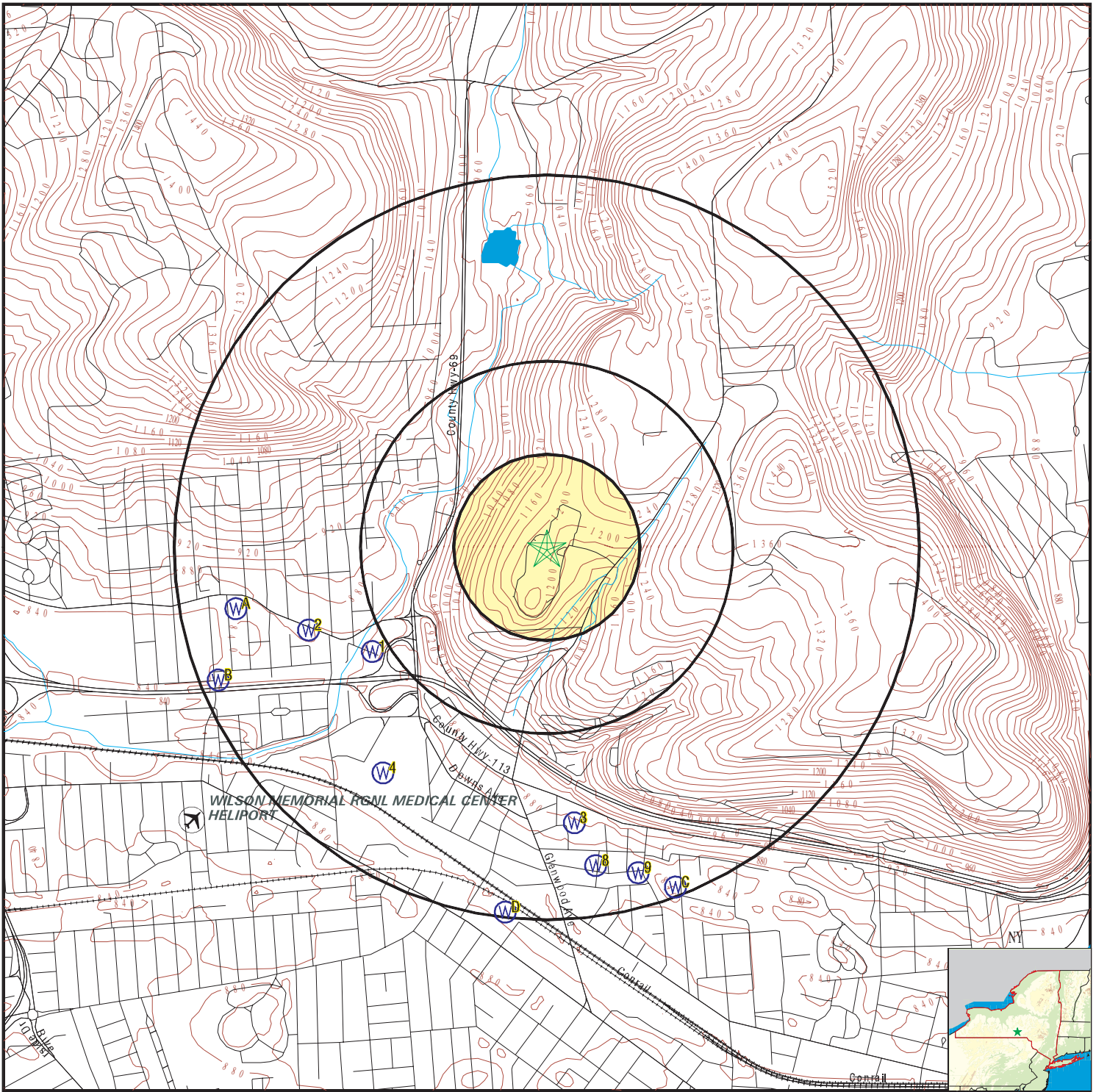
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 7392919.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Parking Lot Reconstruction
 ADDRESS: 249 Glenwood Road
 Binghamton NY 13905
 LAT/LONG: 42.124961 / 75.939143

CLIENT: Atlantic Testing Laboratories
 CONTACT: Jordan Stachowiak
 INQUIRY #: 7392919.2s
 DATE: July 18, 2023 1:26 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
WSW
1/2 - 1 Mile
Higher

FED USGS USGS40000850792

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 233	Type:	Well
Description:	Not Reported	HUC:	02050103
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Sand and gravel aquifers (glaciated regions)		
Formation Type:	Quaternary System	Aquifer Type:	Not Reported
Construction Date:	1967	Well Depth:	25
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

2
WSW
1/2 - 1 Mile
Higher

FED USGS USGS40000850802

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 235	Type:	Well
Description:	Not Reported	HUC:	02050103
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Sand and gravel aquifers (glaciated regions)		
Formation Type:	Quaternary System	Aquifer Type:	Not Reported
Construction Date:	1920	Well Depth:	38
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

3
South
1/2 - 1 Mile
Higher

FED USGS USGS40000850669

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 211	Type:	Well
Description:	Not Reported	HUC:	02050103
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Sand and gravel aquifers (glaciated regions)		
Formation Type:	Quaternary System	Aquifer Type:	Not Reported
Construction Date:	1946	Well Depth:	61
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1958-09-01
Feet below surface:	52.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

4
SW
1/2 - 1 Mile
Higher

FED USGS USGS40000850706

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 221	Type:	Well
Description:	Not Reported	HUC:	02050103
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Sand and gravel aquifers (glaciated regions)		
Formation Type:	Quaternary System	Aquifer Type:	Not Reported
Construction Date:	1928	Well Depth:	52
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

A5
WSW
1/2 - 1 Mile
Higher

FED USGS USGS40000850811

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 662	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	24.5	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

A6
West
1/2 - 1 Mile
Higher

FED USGS USGS40000850816

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 661	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	23.5	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

A7
WSW
1/2 - 1 Mile
Higher

FED USGS USGS40000850809

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 663	Type:	Well
Description:	Not Reported	HUC:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	21.2	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

8
South
1/2 - 1 Mile
Higher

FED USGS USGS40000850594

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 203	Type:	Well
Description:	Not Reported	HUC:	02050103
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	54	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1968-10-01
Feet below surface:	33	Feet to sea level:	Not Reported
Note:	Not Reported		

9
SSE
1/2 - 1 Mile
Higher

FED USGS USGS40000850584

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 201	Type:	Well
Description:	Not Reported	HUC:	02050103
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Sand and gravel aquifers (glaciated regions)		
Formation Type:	Ice-Contact Deposits, Pleistocene		
Aquifer Type:	Not Reported	Construction Date:	1968
Well Depth:	44	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1968-10-01
Feet below surface:	37.00	Feet to sea level:	Not Reported
Note:	Not Reported		

B10
WSW
1/2 - 1 Mile
Higher

FED USGS USGS40000850770

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 231	Type:	Well
Description:	Not Reported	HUC:	02050103
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer:	Sand and gravel aquifers (glaciated regions)		
Formation Type:	Quaternary System	Aquifer Type:	Not Reported
Construction Date:	1928	Well Depth:	80
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

B11
WSW
1/2 - 1 Mile
Higher

FED USGS USGS40000850771

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 596	Type:	Well
Description:	10 ft east of JC7, in square depression in floor		
HUC:	02050103	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Units:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	64
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

C12
SSE
1/2 - 1 Mile
Higher

FED USGS USGS40000850577

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 198	Type:	Well
Description:	Not Reported		
Drainage Area:	Not Reported	HUC:	02050103
Contrib Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer Type:	Not Reported	Formation Type:	Not Reported
Well Depth:	69	Construction Date:	Not Reported
Well Hole Depth:	Not Reported	Well Depth Units:	ft
		Well Hole Depth Units:	Not Reported

Ground water levels, Number of Measurements:	1	Level reading date:	1968-10-01
Feet below surface:	37	Feet to sea level:	Not Reported
Note:	Not Reported		

D13
South
1/2 - 1 Mile
Higher

FED USGS USGS40000850527

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 605	Type:	Well
Description:	Not Reported		
Drainage Area:	Not Reported	HUC:	Not Reported
Contrib Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer Type:	Not Reported	Formation Type:	Not Reported
Well Depth:	75	Construction Date:	Not Reported
Well Hole Depth:	Not Reported	Well Depth Units:	ft
		Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground water levels, Number of Measurements:	2	Level reading date:	1995-05-02
Feet below surface:	34.27	Feet to sea level:	Not Reported
Note:	Not Reported		
<hr/>			
Level reading date:	1994-08-23	Feet below surface:	35.14
Feet to sea level:	Not Reported	Note:	Not Reported

D14
South
1/2 - 1 Mile
Higher

FED USGS USGS40000850518

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 189	Type:	Well
Description:	Not Reported	HUC:	02050103
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	75	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels, Number of Measurements:	1	Level reading date:	1966-04-01
Feet below surface:	45	Feet to sea level:	Not Reported
Note:	Not Reported		

C15
SSE
1/2 - 1 Mile
Higher

FED USGS USGS40000850550

Organization ID:	USGS-NY	Organization Name:	USGS New York Water Science Center
Monitor Location:	BM 193	Type:	Well
Description:	Not Reported	HUC:	02050103
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Not Reported	Formation Type:	Bedrock
Aquifer Type:	Not Reported	Construction Date:	1942
Well Depth:	89	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels, Number of Measurements:	1	Level reading date:	1966-04-01
Feet below surface:	32.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: NY Radon

Radon Test Results

County	Town	Num Tests	Avg Result	Geo Mean	Max Result
BROOME	BARKER	9	4.97	3.75	14.2
BROOME	BINGHAMTON	1,023	6.35	3.06	118.8
BROOME	CHENANGO	139	8.55	5.24	69.7
BROOME	COLESVILLE	39	6.16	3.17	61.4
BROOME	CONKLIN	55	11.7	6.2	108.1
BROOME	DICKINSON	45	8.7	4.37	94
BROOME	FENTON	87	16.85	6.38	210.7
BROOME	JOHNSON	7	2.23	1.78	5.2
BROOME	KIRKWOOD	63	9.09	4.47	86.6
BROOME	LISLE	10	4.91	2.87	21.8
BROOME	MAINE	26	3.37	1.79	23.1
BROOME	NANTICOKE	4	0.98	0.78	2.1
BROOME	SANFORD	31	11.43	4.68	49.5
BROOME	TRIANGLE	24	7.39	5.07	38.8
BROOME	UNION	1,105	3.85	2.26	46.3
BROOME	VESTAL	486	5.26	2.56	43.2
BROOME	WINDSOR	70	6.11	3.05	45.8

Federal EPA Radon Zone for BROOME County: 1

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for BROOME COUNTY, NY

Number of sites tested: 162

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	1.300 pCi/L	85%	14%	1%
Basement	2.240 pCi/L	72%	26%	2%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Freshwater Wetlands

Source: Department of Environmental Conservation

Telephone: 518-402-8961

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

New York Public Water Wells

Source: New York Department of Health

Telephone: 518-458-6731

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Database

Source: Department of Environmental Conservation

Telephone: 518-402-8072

These files contain records, in the database, of wells that have been drilled.

RADON

State Database: NY Radon

Source: Department of Health

Telephone: 518-402-7556

Radon Test Results

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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**Pre-Renovation
Asbestos-Containing Materials,
Lead-Based Paint,
Exterior PCB-Containing Materials,
Mold, and Universal Waste
Inspection Report**

OF THE:

**Fire Apparatus Access and Parking Lot Expansion Project
Broome Development Center
249 Glenwood Road
Binghamton, New York, 13901
DASNY Project No. 354360
Sienna Project No. 3716**

PREPARED BY:



SIENNA
ENVIRONMENTAL TECHNOLOGIES

PREPARED FOR:

**C&S Companies
499 Col. Eileen Collins Blvd.
Syracuse, New York, 13212**

CONDITIONS AS OF:

September 18, 2020

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1 Introduction

Sienna Environmental Technologies (Sienna) was retained by C&S Companies to perform an inspection of Broome Development Center to determine the presence of asbestos-containing materials, lead-based painted/coated materials and exterior PCB-containing caulks, glazing and sealants prior to work associated with the Broome DDSO Fire Apparatus Access and Parking Lot Expansion Project.

The inspection was conducted on September 18, 2020.

The scope of inspection work provided is as indicated in the proposal for Inspection Services dated August 3, 2020 and includes the following:

- Conduct a hazardous materials inspection of the 20'x40' open pavilion, 4 conduit penetration areas at the building foundation, and sealants associated with the realignment of the road and construction of a parking lot on-site.

Sienna's scope of inspection work was altered from the original scope per the following direction from client:

- The inspector on-site met with a DASNY representative whom located several interior spaces where conduit penetrations are anticipated to be made through the exterior wall above the suspended ceiling. The penetrations would exit the building above grade; as such no investigation of the foundation was conducted.

Sienna was charged with conducting the following tasks for this project:

1. Conducting an asbestos inspection in accordance with all applicable regulations,
2. Performing an inspection via X-Ray Florescence (XRF) for lead in accordance with all applicable regulations and guidelines,
3. Sampling exterior caulks, glazing and sealants for PCB-containing materials in accordance with all applicable regulations and guidelines,
4. Preforming an investigation for potential mold contamination and mold growth,
5. Identify and inventory universal wastes in accordance with all applicable regulations, and
6. Providing a summary report of findings.

This report is generated for the exclusive use of the client and is not designed to serve as a specification for abatement. The owner is strongly encouraged to contract with a consultant having a current Asbestos Project Designer Certificate as issued by New York State Department of Labor for the preparation of contract specifications, work plans, and/or drawings prior to requesting bids for the abatement or removal of the materials identified in this report.



2 Asbestos-Containing Materials Inspection

2.1 Methodology

All asbestos inspection work performed by Sienna Environmental Technologies was conducted in accordance with applicable regulations including New York State Department of Labor standards 12 NYCRR Part 56, National Emission Standards for Hazardous Air Pollutants (NESHAPS), the Asbestos Hazard Emergency Response Act, and Occupational Safety and Health Administration regulations. All Sienna Environmental Technologies' personnel assigned to conduct inspections have completed the Environmental Protection Agency (EPA) required training and New York State Department of Labor Division of Safety and Health certification program.

Based on the functional spaces and homogeneous areas (materials uniform in color or texture) identified by Sienna, samples of suspect materials were collected. Techniques used for sample collection were designed to minimize damage to suspected areas, reduce any potential for fiber release, and ensure the safety of the inspector and building occupants.

Samples were analyzed using Polarized Light Microscopy (PLM) in accordance with NYS DOH ELAP Item #198.1 or #198.6. For materials classified as non-friable organically bound materials (NOBs) that were analyzed as equal to or less than 1% asbestos by PLM, additional analysis was performed under Transmission Electron Microscopy (TEM) in accordance with NYS DOH ELAP Item #198.4. The results of this analysis confirmed whether or not a suspect material actually contained asbestos. The confirmed materials and all assumed materials are listed in **Section 2.3 Confirmed Asbestos-Containing Materials and Section 2.4 Assumed Asbestos-Containing Suspect Materials**.

Although the report is a comprehensive analysis of the asbestos inspection work performed, it would be helpful to review all applicable federal, state and local rules, laws and regulations regarding the handling and treatment of asbestos-containing materials (ACM). The following is a list of suggested reading and information sources relating to asbestos:

- New York State Department of Labor Industrial Code Rule 56
- Occupational Safety and Health Administration
- Environmental Protection Agency Rule CFR 763.86 Asbestos Hazard Emergency Response Act
- Environmental Protection Agency Rule 40 CFR, Chapter 61, Subpart M of the National Emission Standards for Hazardous Air Pollutants (NESHAPS)

2.2 Executive Summary

The asbestos inspection included identification, sampling, analysis, and quantification of suspect materials that may be disturbed by the project. By definition an Asbestos-Containing Material (ACM) is any material which contains greater than one percent (>1%) asbestos. Materials which contain asbestos in measurable concentrations less than or equal to one percent ($\leq 1\%$) are reported as containing “trace” amounts.

Copies of all laboratory analysis reports and chains of custody listing locations of sample collection are located in Appendix C. Refer to floor plans located in Appendix E for specific sample location points. Refer to Appendix F for a summary of all functional spaces which were included as part of this inspection service. For explanation of inspection notes, refer to Section 2.7 for note details and specific comments.

2.3 Confirmed Asbestos-Containing Materials

All sampled materials have been analyzed by current EPA AHERA and ELAP protocols. No identified suspect materials have been confirmed to be Asbestos-Containing Materials. Refer to Section 2.4 and 2.5.

2.4 Assumed Asbestos-Containing Suspect Materials

No suspect Asbestos-Containing Materials have been assumed to be Asbestos-Containing Materials. Refer to Sections 2.3 and 2.5.

2.5 Confirmed Non-Asbestos Containing Materials

These materials were sampled and analyzed by current EPA AHERA and ELAP protocols and were proven to contain one percent asbestos or less ($\leq 1\%$).

HAN Number	Material Description	Comments
WALLS (100s)		
100.1	Drywall Board, Wall	Building 3C
100.2	Wall, Joint Compound	Building 3C
101.1	Drywall Board, Wall	Building 5C
101.2	Wall, Joint Compound	Building 5C
CEILINGS (200s)		
200.1	Drywall Board, Ceiling	Building 3C
200.2	Ceiling, Joint Compound	Building 3C
201	Black 1'x1' Random Fissure Ceiling Tile	Building 3C
202.1	Drywall Board, Ceiling	Building 5C
202.2	Joint Compound Ceiling	Building 5C
MISCELLANEOUS (600s)		
601	Retaining Wall Seam Caulk	---
ROOFING (700s)		
700	Grey Shingle	Pavilion
701	Black Shingle Tar	Pavilion
702	Black Tar Paper	Pavilion

2.6 Summary Table of Asbestos-Containing Materials

All sampled materials have been analyzed by current EPA AHERA and ELAP protocols. No identified suspect materials have been confirmed to be Asbestos-Containing Materials, and none were assumed to be ACM.

Refer to Section 2.3, 2.4 and 2.5.

2.7 Inspection Notes

Note #	Description
1	Sampling and analysis of the following suspect asbestos containing materials observed within the project area that are not planned to be disturbed by renovations has not been conducted: <ul style="list-style-type: none">• HAN300 12"x12" White w/ Tan Specks Floor Tile (Building 3C)• HAN600 Brown Cove Base Mastic (Building 3C)• 6"x6" Ceramic Tile System (Building 5C)• Ceramic Cove Base Mastic, Tan (Building 5C)



3 Lead-Based Paint Inspection

3.1 Methodology

Sienna Environmental Technologies used a spectrum analyzer (Refer to Appendix D for additional information) to test painted or coated surfaces included in the scope of work. The analyzer measures the amount of lead in painted surfaces using X-Ray Fluorescence technology (XRF). The analyzer uses a radioactive source which locates lead atoms in painted surfaces and measures the concentration in milligrams per square centimeter. If necessary, paint chip samples were also collected as part of this inspection. Representative surfaces/components were tested in a manner designed to adequately represent the different components, substrates, types of paint, construction and paint history. Various federal, state and local laws, rules, regulations and guidelines may be applicable to this project as it relates to Lead-Based Paint/coatings (LBP) including but not limited to:

1. Lead-Based Paint Renovation, Repair and Painting Regulation Rule (40 CFR Part 745.8 Subpart E (EPA))
2. Lead Safe Housing Rule (HUD 24 CFR Part 35)
3. Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (US Department of Housing and Urban Development (HUD))
4. Occupational Safety and Health Administration (OSHA 29 CFR 1910 and 1926)
5. New York State Education Department (NYSED)
6. State of New York codes and laws
7. All local codes
8. All federal codes
9. US-DOT 49 CFR

The most recent edition of any relevant regulation, standard, document, or code shall be applicable to the work. Where conflict among the requirements exists, the most stringent requirements are generally applicable.

3.2 HUD/ EPA Standards

Certain HUD and EPA standards apply to “Lead-Based Paint” which is any paint or coating which contains lead at or above 1.0 mg/cm² (via XRF), or 0.5 percent by weight (paint chip). Analysis indicated that components, listed in Section 3.3, have a lead content equal to or greater than the HUD/EPA standard for Lead-Based Paint.

3.3 Summary Table of Lead-Based Painted/Coated Materials

Functional Space ID/ Description	Material Description	Approximate Quantity	Condition	Positive or Homogeneous with Shot #
Building 3C Mechanical Room 4	No Lead-Based Painted/Coated components were detected within the scope of work.			
Building 3C 23A Theater Lobby				
Building 3C 40 Rehab Room				
Building 5C 32 Mechanical Room				
Building 5C Corridor				
Pavilion				
Exterior Roadway, Court, & Parking Lot Area				

The presence of lead in surfaces that were analyzed as less than 0.5 percent lead by weight or in measurable amounts but less than 1.0 mg/cm² is a consideration for the purposes of complying with OSHA regulations. Refer to Section 3.4 for details.

3.4 OSHA Regulations

On May 4, 1993, OSHA promulgated the Lead Exposure in Construction Rule (29 CFR Part 1926.62). This regulation applies to all construction activities involving potential lead exposures. This regulation applies when lead is present in any detectable amount and is not limited to HUD’s definition of Lead-Based Paint. Surface abrading and demolition activities may release lead from unpainted materials which contain lead such as glazed ceramic tile and porcelain, or enameled wall panels. Although these items do not meet HUD’s definition of Lead-Based Paint and need not be included in disclosure under the Lead Disclosure Rule (Refer to Section 3.5), they have been included for reference in Section 3.3 above.



3.5 Disclosure Requirements

If the subject property of this report is target housing, the owner has certain responsibilities under the Lead Disclosure Rule when the property is being sold or leased, or when a lease is being renewed with revisions. In general, lead disclosure is required in these circumstances, except that disclosure does not have to be made when the target housing is being leased if the inspection has found that it is Lead-Based Paint free.

Per 40 CFR Part 745 "Target Housing" is defined as: any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing); or any 0-bedroom dwelling.

Results of this inspection must be provided to new lessees (tenants) and prospective buyers of this property under Federal law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must be provided by the owner to prospective buyers and it must be made available to prospective tenants and to renewing tenants if they have not been provided the information previously. The Inspector's plain language summary of the report must be provided to the client (e.g., property owner or manager) when the complete report is provided. The landlord (lessor) or seller is also required to distribute an educational pamphlet approved by the U.S. Environmental Protection Agency and include the Lead Warning Statement in the lease or sale contracts to ensure that parents have the information they need to protect their children from Lead-Based Paint hazards. Complete disclosure requires the landlord/sellers and renters/buyers (and their agents) to sign and date an acknowledgement that the required information and materials were provided and received. Also, prospective buyers must be provided the opportunity to have their own Lead-Based Paint inspection, lead hazard screen or risk assessment performed before the purchase agreement is signed; the standard period is 10 days, but this period may be changed or waived by agreement between the seller and prospective buyer. EPA regulations require the inspector to keep the inspection report for at least 3 years. (See Section IV of Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing for further details; see www.hud.gov/lead.)



4 PCB Inspection

4.1 Methodology

Sienna Environmental Technologies identified suspect exterior PCB-containing caulk, glazing, or other sealant on building components that are included in the scope of work.

The inspection was performed in conformance with all applicable federal, state and local rules, laws, regulations and/or guidelines. The US EPA's specified limit for PCB content/concentration is 50 ppm (parts per million) or 50 mg/kg (milligrams per kilogram) by weight.

The laboratory used for bulk sample analysis was approved by NYS ELAP and AIHA or NVLAP and performed laboratory analysis by EPA Method 8082. The laboratory results are reported in mg/Kg (milligrams per kilogram) which equates to ppm (parts per million). Copies of all laboratory analysis reports and chains of custody listing locations of sample collection are located in Appendix C.

4.2 Suspect PCB-Containing Materials

The inspection revealed the following materials as suspect exterior PCB-containing caulking, glazing, or sealant materials:

HAN Number	Material Description	Results Above EPA Regulatory Limit (50 ppm)
MISCELLANEOUS (600s)		
601	Retaining Wall Seam Caulk	No

4.3 Summary Table of PCB-Containing Materials

Analysis indicates PCBs were not detected above the laboratory reporting limit in the suspected PCB-containing materials, and thus not regulated as a PCB-containing material.



5 Microbial Investigation

5.1 Methodology

Sienna performed a screening level assessment for potential mold contamination and mold growth. Tasks included:

- 1) **Visual assessment:** A visual inspection to identify suspect fungal growth. Assess visible moisture damaged and/or saturated building materials which are providing environmental conditions conducive to microbial growth.

Molds, also known as fungi, are microscopic organisms that can be found virtually everywhere, indoors and outdoors. In the presence of excess moisture, molds can grow rapidly to produce adverse conditions. In response to increasing public concern, a number of authorities, including the US EPA, OSHA, ACGIH and the New York City Department of Health, have developed recommendations and guidelines for assessment and remediation of mold.

While it is generally accepted that molds can be allergenic, infectious and toxic, there are no generally accepted numerical guidelines for interpretation of microbial data. The absence of state or federal standards makes interpretation of microbial data somewhat challenging. This report has been designed to provide some basic interpretive information using certain assumptions and facts that have been extracted from a number of authoritative bodies, such as the American Conference of Governmental Industrial Hygienists (ACGIH). In the absence of standards, the client must determine the appropriateness and applicability of this report to the given situation. Identification of the presence of a particular fungus in an indoor environment does not necessarily mean that the building occupants are or are not being exposed to antigenic or toxic agents. None of the information contained herein should be construed as medical advice or a call to action for evacuation or remediation. Any decision relative to medical significance should be made by a qualified physician.

5.2 Summary of Findings

Visual Assessment

This table includes observations from the visual inspection performed as part of the mold investigation. Areas of suspected microbial growth, moisture damage and/or intrusions, saturated building materials, and any conditions conducive to microbial growth are included in this table.

Functional Space ID/ Description	Location/Substrate Description	Visual Assessment
Building 3C Mechanical Room 4		
Building 3C 23A Theater Lobby		
Building 3C 40 Rehab Room		
Building 5C 32 Mechanical Room		
Building 5C Corridor		
Pavilion		

No visible molds or conditions highly conducive to mold growth were observed within the projects scope of planned work.

6 Universal Waste Investigation

6.1 Methodology

Universal Waste consists of the following discarded materials, as identified in 6 NYCRR 374-3 and the EPA's Universal Waste regulations (CFR 40 Part 273) streamline hazardous waste management standards for federally designated "Universal Wastes":

- Lamps - the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.
- Mercury thermostats and switches - a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices.
- Batteries - a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.
- Pesticides - any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant.
- Electrical Ballast - device intended to limit the amount of current in an electric circuit; specifically, the inductive ballast used in fluorescent lamps, to limit the current through the tube. Although not considered universal waste. Ballasts were inspected for the presence of labelling indicating that no PCBs are present within the capacitors of the ballasts.
- In addition, Sienna was asked to inventory any stored refrigerants, Halon, or other fire extinguishing equipment/materials.

6.2 Summary of Universal/Hazardous Waste

The following materials were discovered during our site investigation:

Functional Space ID/ Description	Material Description	Quantity
Pavilion	CFL Bulb	8 Bulbs
Exterior Roadway, Court, & Parking Lot Area	Lamp Post CFL Bulbs	20 Bulbs



Appendix A

General Conditions of Inspection

1. Sienna Environmental Technologies, LLC neither accepts nor implies any liability for the implementation of the recommendations found within this report.
2. This inspection was limited to areas accessible to the inspector. Sienna Environmental Technologies, LLC neither accepts nor implies any liability for hazardous materials that may be present in other areas of the building.
3. The results of the laboratory analytical reports that may be contained herein are the product of the knowledge, experience and expertise of the laboratory retained to perform such services. Sienna Environmental Technologies neither accepts nor implies any liability for sample analysis reports compiled by others.
4. This report is based on the condition and contents present at the site on the day of the inspection. Sienna Environmental Technologies, LLC is not liable for materials, chemicals or other substances of concern that may have been removed from the site, cleaned or disposed of prior to the inspection date or subsequent to that date.
5. An inspection for Asbestos-Containing Materials, Lead-Based Paint or PCB-Containing Materials relies heavily upon identification of homogeneous areas, with subsequent sampling and laboratory analysis determined by: the quantity of surfaces identified, generally accepted inspection protocols, regulatory requirements, and the inspector's judgment. Specific sample locations are determined with the objective of selecting representative samples. As with any type of sampling, the possibility of obtaining a false positive or false negative does exist, is inherent in the sampling process, and can at times result from the uneven distribution of target analytes within the suspect material. The comprehensive inspection protocol developed and utilized by Sienna Environmental Technologies, LLC attempts to minimize the risk of a false positive or false negative result. However, the client is advised that the risk of false positives or false negatives cannot be completely eliminated.



Appendix B

Certifications and Licenses

New York State – Department of Labor

Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Sienna Environmental Technologies LLC

350 Elmwood Avenue

Buffalo, NY 14222

FILE NUMBER: 00-1037

LICENSE NUMBER: 29432

LICENSE CLASS: RESTRICTED

DATE OF ISSUE: 02/14/2020

EXPIRATION DATE: 02/28/2021

Duly Authorized Representative – Susanne Kelley:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.



Eileen M. Franko, Director
For the Commissioner of Labor

United States Environmental Protection Agency

This is to certify that

Sienna Environmental Technologies, LLC

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires November 20, 2021

LBP-599-1

Certification #

October 25, 2018

Issued On



Michelle Price, Chief

Lead, Heavy Metals, and Inorganics Branch

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE



JOHN C OSBORN
CLASS(EXPIRES)
D INSP(02/22) H PM (02/22)

CERT# 85-9473
DMV# 449406731

MUST BE CARRIED ON ASBESTOS PROJECTS



**NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER**



Expires 12:01 AM April 01, 2022
Issued April 01, 2020

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. PAUL J. MUCHA
AMERICA SCIENCE TEAM NEW YORK, INC
117 EAST 30TH ST
NEW YORK, NY 10016

NY Lab Id No: 11480

*is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:*

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual

Serial No.: 61903

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

**NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER**



Expires 12:01 AM April 01, 2021
Issued April 01, 2020

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. JULIE DICKERSON
ENVIRONMENTAL HAZARDS SERVICES, LLC
7469 WHITEPINE ROAD
N. CHESTERFIELD, VA 23237

NY Lab Id No: 11714

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2003) for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:*

Characteristic Testing

TCLP EPA 1311

Metals I

Barium, Total EPA 6010D
Cadmium, Total EPA 6010D
Chromium, Total EPA 6010D
Lead, Total EPA 6010D
Silver, Total EPA 7000B
EPA 6010D

Metals II

Arsenic, Total EPA 6010D
Mercury, Total EPA 7471B
Selenium, Total EPA 6010D

Polychlorinated Biphenyls

Aroclor 1016 (PCB-1016) EPA 8082A
Aroclor 1016 (PCB-1016) in Oil EPA 8082A
Aroclor 1221 (PCB-1221) EPA 8082A
Aroclor 1221 (PCB-1221) in Oil EPA 8082A
Aroclor 1232 (PCB-1232) EPA 8082A
Aroclor 1232 (PCB-1232) in Oil EPA 8082A
Aroclor 1242 (PCB-1242) EPA 8082A
Aroclor 1242 (PCB-1242) in Oil EPA 8082A
Aroclor 1248 (PCB-1248) EPA 8082A
Aroclor 1248 (PCB-1248) in Oil EPA 8082A
Aroclor 1254 (PCB-1254) EPA 8082A

Polychlorinated Biphenyls

Aroclor 1254 (PCB-1254) in Oil EPA 8082A
Aroclor 1260 (PCB-1260) EPA 8082A
Aroclor 1260 (PCB-1260) in Oil EPA 8082A
Aroclor 1262 (PCB-1262) EPA 8082A
Aroclor 1262 (PCB-1262) in Oil EPA 8082A
Aroclor 1268 (PCB-1268) EPA 8082A
Aroclor 1268 (PCB-1268) in Oil EPA 8082A

Sample Preparation Methods

EPA 3580A
EPA 3050B
EPA 3550C
EPA 3540C

Serial No.: 61515

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.





Appendix C

Chains of Custody and Laboratory Reports



AmeriSci Richmond
13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: 8047631200 FAX: 8047631800

September 25, 2020

Sienna Environmental Technologies, LLC
Attn: Susanne Kelley
350 Elmwood Ave
Buffalo, NY 14222

RE: Sienna Environmental Technologies, LLC
Job Number 120091860
P.O. #3716
3716; Dwight Wethey, PE / C&S Engineers; Broome Development Center, 249 Glen Wood Road,
Binghamton, NY

Dear Susanne Kelley:

Enclosed are the results of Asbestos Analysis - Bulk Protocol of the following Sienna Environmental Technologies, LLC samples, received at AmeriSci on Tuesday, September 22, 2020, for a 3 day turnaround:

091820-3716-100.1-1, 091820-3716-100.2-1, 091820-3716-101.1-1, 091820-3716-101.2-1, 091820-3716-200.1-1,
091820-3716-200.2-1, 091820-3716-201-1, 091820-3716-201-2, 091820-3716-202.1-1, 091820-3716-202.2-1,
091820-3716-601-1, 091820-3716-601-2, 091820-3716-700-1, 091820-3716-700-2, 091820-3716-701-1, 091820-3716-701-2,
091820-3716-702-1, 091820-3716-702-2

The 18 samples, placed in zip lock bag, were shipped to AmeriSci via Fed Ex 8149 1843 1255 B. Sienna Environmental Technologies, LLC requested ELAP PLM/TEM analysis of these samples.

The results of the analyses which were performed under NYSDOH ELAP Lab Certification # 10984 following ELAP 198.4 TEM guidelines are presented within the Summary Table of this report. The presence of matrix reduction data in the Summary Table normally indicates an NOB sample. For NOB samples the individual matrix reduction and TEM analysis results are listed in Table I. Complete PLM results for individual samples analyzed by ELAP 198.1 (friable) and ELAP 198.6 (NOB) are presented in the PLM Bulk Asbestos Report. This combined report relates ONLY to sample analysis expressed as percent composition by weight and percent asbestos. This report must not be used to claim product endorsement or approval by these laboratories, NVLAP, ELAP or any other associated agency. The National Institute of Standards and Technology accreditation requirements, mandate that this report must not be reproduced, except in full without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations respectively, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Jean L. Mayes
QA Manager | Authorized Signatory

**AmeriSci Richmond**13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: (804) 763-1200 • FAX: (804) 763-1800**PLM Bulk Asbestos Report**Sienna Environmental Technologies, LLC
Attn: Susanne Kelley
350 Elmwood Ave

Buffalo, NY 14222**Date Received** 09/22/20 **AmeriSci Job #** 120091860
Date Examined 09/24/20 **P.O. #**
ELAP # 10984 **Page** 1 of 4
RE: 3716; Dwight Wethey, PE / C&S Engineers; Broome
Development Center, 249 Glen Wood Road, Binghamton, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
091820-3716-100.1-1 100.1 Location: Drywall Board - Wall; Mechanical Room 4	120091860-01	No	NAD (by NYS ELAP 198.1) by David W. Ralbovsky on 09/24/20
Analyst Description: Brown/White, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: , Cellulose 5 %, Non-fibrous 95 %			
091820-3716-100.2-1 100.2 Location: Wall - Joint Compound; Mechanical Room 4	120091860-02	No	NAD (by NYS ELAP 198.1) by David W. Ralbovsky on 09/24/20
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: , Non-fibrous 100 %			
091820-3716-101.1-1 101.1 Location: Drywall Board - Wall; 5C32	120091860-03	No	NAD (by NYS ELAP 198.1) by David W. Ralbovsky on 09/24/20
Analyst Description: Brown/Lt.Gray, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: , Cellulose 5 %, Fibrous glass Trace, Non-fibrous 95 %			
091820-3716-101.2-1 101.2 Location: Wall - Joint Compound; 5C32	120091860-04	No	NAD (by NYS ELAP 198.1) by David W. Ralbovsky on 09/24/20
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: , Non-fibrous 100 %			
091820-3716-200.1-1 200.1 Location: Drywall Board - Ceiling; 3C23A	120091860-05	No	NAD (by NYS ELAP 198.1) by David W. Ralbovsky on 09/24/20
Analyst Description: Lt. Gray, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: , Cellulose 4 %, Non-fibrous 96 %			

Client Name: Sienna Environmental Technologies, LLC

PLM Bulk Asbestos Report

3716; Dwight Wethey, PE / C&S Engineers; Broome
Development Center, 249 Glen Wood Road, Binghamton, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
091820-3716-200.2-1 200.2	120091860-06 Location: Ceiling - Joint Compound; 3C23A	No	NAD (by NYS ELAP 198.1) by David W. Ralbovsky on 09/24/20
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: , Non-fibrous 100 %			
091820-3716-201-1 201	120091860-07 Location: Black 1' x 1' Random Fissure CT; 3C40	No	NAD (by NYS ELAP 198.6) by David W. Ralbovsky on 09/24/20
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: , Non-Asbestos 32.1 %			
Comment: Heat Sensitive (organic): 19.8%; Acid Soluble (inorganic): 48.2%; Inert (Non-asbestos): 32.1%			
091820-3716-201-2 201	120091860-08 Location: Black 1' x 1' Random Fissure CT; 3C40	No	NAD (by NYS ELAP 198.6) by David W. Ralbovsky on 09/24/20
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: , Non-Asbestos 38.6 %			
Comment: Heat Sensitive (organic): 16.6%; Acid Soluble (inorganic): 44.7%; Inert (Non-asbestos): 38.6%			
091820-3716-202.1-1 202.1	120091860-09 Location: Drywall Board - Ceiling; 5C32	No	NAD (by NYS ELAP 198.1) by David W. Ralbovsky on 09/24/20
Analyst Description: Lt. Gray, Homogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 4 %, Fibrous glass Trace, Non-fibrous 96 %			
091820-3716-202.2-1 202.1	120091860-10 Location: Joint Compound - Ceiling; 5C32	No	NAD (by NYS ELAP 198.1) by David W. Ralbovsky on 09/24/20
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

Client Name: Sienna Environmental Technologies, LLC

PLM Bulk Asbestos Report

3716; Dwight Wethey, PE / C&S Engineers; Broome
Development Center, 249 Glen Wood Road, Binghamton, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
091820-3716-601-1 601	120091860-11 Location: Retaining Wall Seam Caulk; 400	No	NAD (by NYS ELAP 198.6) by David W. Ralbovsky on 09/24/20
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: , Non-Asbestos 18.6 %			
Comment: Heat Sensitive (organic): 58.0%; Acid Soluble (inorganic): 23.4%; Inert (Non-asbestos): 18.6%			
091820-3716-601-2 601	120091860-12 Location: Retaining Wall Seam Caulk; 400	No	NAD (by NYS ELAP 198.6) by David W. Ralbovsky on 09/24/20
Analyst Description: White, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: , Non-Asbestos 15.4 %			
Comment: Heat Sensitive (organic): 48.0%; Acid Soluble (inorganic): 36.6%; Inert (Non-asbestos): 15.4%			
091820-3716-700-1 700	120091860-13 Location: Grey Shingle; 500	No	NAD (by NYS ELAP 198.6) by David W. Ralbovsky on 09/24/20
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: , Non-Asbestos 66.7 %			
Comment: Heat Sensitive (organic): 28.2%; Acid Soluble (inorganic): 5.1%; Inert (Non-asbestos): 66.7%			
091820-3716-700-2 700	120091860-14 Location: Grey Shingle; 500	No	NAD (by NYS ELAP 198.6) by David W. Ralbovsky on 09/24/20
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: , Non-Asbestos 69.4 %			
Comment: Heat Sensitive (organic): 27.6%; Acid Soluble (inorganic): 3.0%; Inert (Non-asbestos): 69.4%			
091820-3716-701-1 701	120091860-15 Location: Black Shingle Tar; 500	No	NAD (by NYS ELAP 198.6) by David W. Ralbovsky on 09/24/20
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: , Non-Asbestos 20.2 %			
Comment: Heat Sensitive (organic): 71.8%; Acid Soluble (inorganic): 8.0%; Inert (Non-asbestos): 20.2%			

Client Name: Sienna Environmental Technologies, LLC

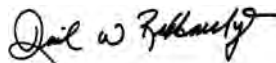
PLM Bulk Asbestos Report

3716; Dwight Wethey, PE / C&S Engineers; Broome
Development Center, 249 Glen Wood Road, Binghamton, NY

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
091820-3716-701-2 701	120091860-16 Location: Black Shingle Tar; 500	No	NAD (by NYS ELAP 198.6) by David W. Ralbovsky on 09/24/20
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: , Non-Asbestos 18.9 % Comment: Heat Sensitive (organic): 79.8%; Acid Soluble (inorganic): 1.2%; Inert (Non-asbestos): 18.9%			
091820-3716-702-1 702	120091860-17 Location: Black Tar Paper; 500	No	NAD (by NYS ELAP 198.6) by David W. Ralbovsky on 09/24/20
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: , Non-Asbestos 3.2 % Comment: Heat Sensitive (organic): 94.9%; Acid Soluble (inorganic): 1.9%; Inert (Non-asbestos): 3.2%			
091820-3716-702-2 702	120091860-18 Location: Black Tar Paper; 500	No	NAD (by NYS ELAP 198.6) by David W. Ralbovsky on 09/24/20
Analyst Description: Black, Heterogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: , Non-Asbestos 1.7 % Comment: Heat Sensitive (organic): 96.7%; Acid Soluble (inorganic): 1.6%; Inert (Non-asbestos): 1.7%			

Reporting Notes:

Analyzed by: David W. Ralbovsky
Date: 9/24/2020



Reviewed by: Jean L. Mayes



*NAD = no asbestos detected, Detection Limit <1%, Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; "Present" or NVA = "No Visible Asbestos" are observations made during a qualitative analysis; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis using Olympus, Model BH-2 microscope, Serial #229707, by EPA 600/R-93/116 per 40 CFR 763 (NVLAP Lab Code 101904-0) and ELAP PLM Analysis Protocol 198.1 for New York friable samples which includes quantitation of any vermiculite observed (198.6 for NOB samples) or EPA 400 pt ct by EPA 600/M4-82-020 (NYSDOH ELAP Lab # 10984); CA ELAP Lab # 2508; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested.

Client Name: Sienna Environmental Technologies, LLC

Table I
Summary of Bulk Asbestos Analysis Results

3716; Dwight Wethey, PE / C&S Engineers; Broome Development Center, 249 Glen Wood Road, Binghamton, NY

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	091820-3716-100.1-1	100.1	----	----	----	----	NAD	NA
	Location: Drywall Board - Wall; Mechanical Room 4							
02	091820-3716-100.2-1	100.2	----	----	----	----	NAD	NA
	Location: Wall - Joint Compound; Mechanical Room 4							
03	091820-3716-101.1-1	101.1	----	----	----	----	NAD	NA
	Location: Drywall Board - Wall; 5C32							
04	091820-3716-101.2-1	101.2	----	----	----	----	NAD	NA
	Location: Wall - Joint Compound; 5C32							
05	091820-3716-200.1-1	200.1	----	----	----	----	NAD	NA
	Location: Drywall Board - Ceiling; 3C23A							
06	091820-3716-200.2-1	200.2	----	----	----	----	NAD	NA
	Location: Ceiling - Joint Compound; 3C23A							
07	091820-3716-201-1	201	0.327	19.8	48.2	32.1	NAD	NAD
	Location: Black 1' x 1' Random Fissure CT; 3C40							
08	091820-3716-201-2	201	0.371	16.6	44.7	38.6	NAD	NAD
	Location: Black 1' x 1' Random Fissure CT; 3C40							
09	091820-3716-202.1-1	202.1	----	----	----	----	NAD	NA
	Location: Drywall Board - Ceiling; 5C32							
10	091820-3716-202.2-1	202.1	----	----	----	----	NAD	NA
	Location: Joint Compound - Ceiling; 5C32							
11	091820-3716-601-1	601	0.516	58.0	23.4	18.6	NAD	NAD
	Location: Retaining Wall Seam Caulk; 400							
12	091820-3716-601-2	601	0.516	48.0	36.6	15.4	NAD	NAD
	Location: Retaining Wall Seam Caulk; 400							
13	091820-3716-700-1	700	0.766	28.2	5.1	66.7	NAD	NAD
	Location: Grey Shingle; 500							
14	091820-3716-700-2	700	0.427	27.6	3.0	69.4	NAD	NAD
	Location: Grey Shingle; 500							
15	091820-3716-701-1	701	0.462	71.8	8.0	20.2	NAD	NAD
	Location: Black Shingle Tar; 500							
16	091820-3716-701-2	701	0.451	79.8	1.2	18.9	NAD	NAD
	Location: Black Shingle Tar; 500							

See Reporting notes on last page

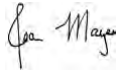
Client Name: Sienna Environmental Technologies, LLC

Table I
Summary of Bulk Asbestos Analysis Results

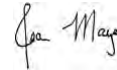
3716; Dwight Wethey, PE / C&S Engineers; Broome Development Center, 249 Glen Wood Road, Binghamton, NY

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
17	091820-3716-702-1	702	0.186	94.9	1.9	3.2	NAD	NAD
Location: Black Tar Paper; 500								
18	091820-3716-702-2	702	0.235	96.7	1.6	1.7	NAD	NAD
Location: Black Tar Paper; 500								

Analyzed by: Jean L. Mayes



Reviewed by: Jean L. Mayes



Date: 9/25/2020

Semi-Quantitative Analysis: NAD = no asbestos detected; NA = not analyzed; NA/PS = not analyzed due to positive stop; Trace = <1%; PLM analysis by EPA 600/R-93/116 per 40 CFR 763 (NVLAP Lab Code 101904-0) or NY ELAP 198.1 for New York friable samples which includes quantitation of any vermiculite observed (198.6 for NOB samples) or EPA 400 pt ct by EPA 600/M4-82-020 (NY ELAP Lab # 10984); TEM prep by EPA 600/R-93/116 Section 2.3 (analysis by Section 2.5, not covered by NVLAP Bulk accreditation); or NY ELAP 198.4 for New York NOB samples (NY ELAP Lab # 10984); ** Warning Notes: Consider PLM fiber diameter limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris, soils or other heterogeneous materials for which a combination PLM/TEM evaluation is recommended; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only.

Fax/Email Report to: Labresults@siennaet.com

120091860 1 of 2

Client/Contact: <u>Dwight Wethey, P.E. C+S Engineers</u>	Turn around (circle) RUSH 48 Hour 24 Hour 72 Hour
Building/Location: <u>Broome Development Center, 249 Glen Wood Road, Binghamton, NY</u>	
Job #: <u>3716</u> Total # Samples: <u>18</u>	

PLM TEM AAS OTHER

Sample #				Description of Sample	Location of Sample	Notes
Date	Job	HAN	ID#			
9/18/20	3716	100.1	1	Drywall Board-Wall	Mechanical Room 4	
		100.2	1	Wall-Joint Compound	Mechanical Room 4	
		101.1	1	Drywall Board-Wall	5C32	
		101.2	1	Wall-Joint Compound	5C32	
		200.1	1	Drywall Board-Ceiling	3C23A	
		200.2	1	Ceiling-Joint Compound	3C23A	
		201	1	Black 1'x1' Random Fissure CT	3C40	
		201	2	↓	3C40	
		202.1	1	Drywall Board-Ceiling	5C32	
		202.2	1	Joint Compound-Ceiling	5C32	
		601	1	Retaining Wall Seam Caulk	400	
		601	2	↓	400	
		700	1	Grey Shingle	500	
		700	2	↓	500	
					RECEIVED	

Notes:
 Yes No
 Negative PLM to TEM per ELAP protocols
 Positive stop by HAN
 Layered analysis is expected - Sample HAN-ID # _____

SEP 22 2020
By per

Sampled By: John C. Osborn Date: 9/18/20
 Relinquished By: John C. Osborn Date: 9/21/20
 Received By: _____ Date: _____



Environmental Hazards Services, L.L.C.
 7469 Whitepine Rd
 Richmond, VA 23237
 Telephone: 800.347.4010

PCB Bulk Analysis Report

Report Number: 20-09-03516

Client: Sienna Environmental
 350 Elmwood Avenue
 Buffalo, NY 14222-2204

Received Date: 09/22/2020

Reported Date: 09/30/2020

Project/Test Address: 3716; Broome Development Center; 249 Glen Wood Road; Binghamton, NY

Client Number:
 33-5983

Fax Number:
 716-332-3136

Laboratory Results

Lab Sample Number: 20-09-03516-001
 Client Sample Number: 601
 Sample Matrix: Caulk
 Reporting Limit (mg/kg): 0.98

Preparation Date: 09/25/2020
 Analysis Date: 09/29/2020
 Sample Weight (g): 1.025
 Narrative ID:

Aroclor 1016 (mg/kg)	Aroclor 1221 (mg/kg)	Aroclor 1232 (mg/kg)	Aroclor 1242 (mg/kg)	Aroclor 1248 (mg/kg)	Aroclor 1254 (mg/kg)	Aroclor 1260 (mg/kg)	Aroclor 1262 (mg/kg)	Aroclor 1268 (mg/kg)
<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98

Sample Narratives:

Preparation Method: EPA SW846 3540C
 Analysis Method: EPA SW846 8082A

Reviewed By Authorized Signatory: _____

Tasha Eaddy
 QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. All internal quality control requirements associated with the batch were met, unless otherwise noted. Results represent the analysis of samples submitted by the client. Unless otherwise noted, samples are reported without a dry weight correction. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. Virginia Certification #460172 NY ELAP #11714.

Legend g = gram mg/kg = milligram per kilogram

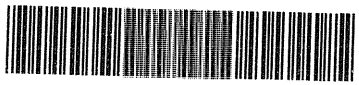
Fax/Email Report to: Labresults@siennamet.com

Client/Contact: <u>Dwight Wethey, P.E., CTS Engineers</u>	Turn around (circle) RUSH 48 Hour 24 Hour 72 Hour <u>5 Day</u>
Building/Location: <u>Broome Development Center, 249 Glen Wood Road, Binghamton, NY</u>	
Job #: <u>3716</u> Total # Samples: <u>1</u>	

_____ PLM _____ TEM _____ AAS OTHER PCB 8082A

Sample #				Description of Sample	Location of Sample	Notes
Date	Job	HAN	ID#			
9/18/20	3716	601	PCB	Retaining Wall Seam Caulk	400	

20-09-03516



Due Date:
09/30/2020
(Wednesday)
AE

Notes:
 Yes No
 Negative PLM to TEM per ELAP protocols
 Positive stop by HAN
 Layered analysis is expected - Sample HAN-ID # _____

Sampled By: John C. Osborn Date: 9/18/20
 Relinquished By: John C. Osborn Date: 9/21/20
 Received By: Stone Date: 9/22/20 11:21 am



Appendix D

XRF Spectrum Analyzer Report and Instrument Information

LEAD PAINT INSPECTION REPORT

C&S Companies

CLIENT

Broome Development Center

INSPECTION LOCATION

September 18, 2020

INSPECTION DATE(S)

Heuresis Pb200i

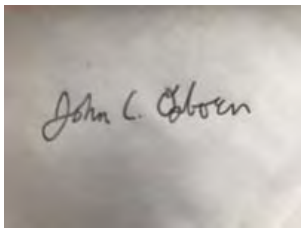
XRF INSTRUMENT TYPE

2372

XRF INSTRUMENT SERIAL NUMBER

1.0 mg/cm²

ACTION LEVEL



SIGNED:

DATE: 10/5/2020

John Osborn

Company Heuresis Corp.
 Model Pb200i
 Type XRF Lead Paint Analyzer
 Serial Num. 2372
 App Version Pb200i-4.1-11

Reading #	Date	Time	Room/Space#	Color	Substrate	Component	-->Member	Wall	Condition	PbC	Units	3 SD	Result	AL
1	9/18/2020	10:23:11				Calibration				1 mg/cm2		0.2	Positive	1
2	9/18/2020	10:25:31				Calibration				1.1 mg/cm2		0.2	Positive	1
3	9/18/2020	10:26:49				Calibration				1 mg/cm2		0.2	Positive	1
4	9/18/2020	10:27:46	Mech 4	Beige	Gypsum	Room	Wall	A	Intact	0.1 mg/cm2		0.3	Negative	1
5	9/18/2020	10:28:05	Mech 4	Beige	Gypsum	Room	Wall	D	Intact	0.1 mg/cm2		0.3	Negative	1
6	9/18/2020	10:28:53	Mech 4	Beige	Gypsum	Room	Ceiling	-	Intact	0.2 mg/cm2		0.3	Negative	1
7	9/18/2020	10:29:22	Mech 4	Grey	Metal	Electric Panel		A	Intact	0.1 mg/cm2		0.3	Negative	1
8	9/18/2020	10:29:39	Mech 4	Grey	Metal	Electric Panel		C	Intact	0.1 mg/cm2		0.3	Negative	1
9	9/18/2020	10:44:13	3C23A	White	Gypsum	Room	Wall	A	Intact	-0.3 mg/cm2		0.3	Negative	1
10	9/18/2020	10:44:32	3C23A	White	Gypsum	Room	Wall	C	Intact	0.5 mg/cm2		0.3	Negative	1
11	9/18/2020	10:45:11	3C40	Black	Gypsum	Room	Wall	C	Intact	0.2 mg/cm2		0.3	Negative	1
12	9/18/2020	10:45:34	3C40	Black	Gypsum	Room	Wall	A	Intact	0 mg/cm2		0.3	Negative	1
13	9/18/2020	10:45:58	3C40	Black	Tile	Room	Ceiling	-	Intact	0.1 mg/cm2		0.3	Negative	1
14	9/18/2020	12:27:08	400	Yellow	Concrete	Parking Lines		-	Intact	0 mg/cm2		0.3	Negative	1
15	9/18/2020	12:27:17	400	Yellow	Concrete	Parking Lines		-	Intact	0.2 mg/cm2		0.3	Negative	1
16	9/18/2020	12:27:26	400	Yellow	Concrete	Parking Lines		-	Intact	0.1 mg/cm2		0.3	Negative	1
17	9/18/2020	12:28:06	400	Brown	Metal	Drain		-	Intact	0.1 mg/cm2		0.3	Negative	1
18	9/18/2020	12:28:18	400	Brown	Metal	Drain		-	Intact	0.3 mg/cm2		0.3	Negative	1
19	9/18/2020	12:29:12	401	Yellow	Metal	Support Column		-	Intact	0.4 mg/cm2		0.3	Negative	1
20	9/18/2020	12:29:49	401	Grey	Metal	Pipe	Vertical	-	Intact	0.2 mg/cm2		0.3	Negative	1
21	9/18/2020	12:30:09	402	Grey	Metal	Pipe	Vertical	-	Intact	0.2 mg/cm2		0.3	Negative	1
22	9/18/2020	12:30:18	402	Grey	Metal	Pipe	Vertical	-	Intact	0.3 mg/cm2		0.3	Negative	1
23	9/18/2020	12:30:27	402	Grey	Metal	Pipe	Vertical	-	Intact	0.2 mg/cm2		0.3	Negative	1
24	9/18/2020	12:30:55	403	Black	Metal	Pipe	Vertical	-	Intact	0.3 mg/cm2		0.3	Negative	1
25	9/18/2020	12:31:25	403	Black	Metal	Pipe	Vertical	-	Intact	0.1 mg/cm2		0.3	Negative	1
26	9/18/2020	12:31:45	403	Grey	Metal	Pipe	Vertical	-	Intact	0.2 mg/cm2		0.3	Negative	1
27	9/18/2020	12:32:56	403	Yellow	Concrete	Parking Lines		-	Intact	0.1 mg/cm2		0.3	Negative	1
28	9/18/2020	12:33:05	403	Yellow	Concrete	Parking Lines		-	Intact	0 mg/cm2		0.3	Negative	1
29	9/18/2020	12:33:59	404	Orange	Wood	Bench		-	Intact	0 mg/cm2		0.3	Negative	1
30	9/18/2020	12:34:29	404	Yellow	Wood	Table		-	Intact	-0.1 mg/cm2		0.3	Negative	1
31	9/18/2020	12:35:47	404	Brown	Metal	Grill		C	Intact	0.1 mg/cm2		0.3	Negative	1
32	9/18/2020	12:36:02	404	Brown	Metal	Grill		C	Intact	0.2 mg/cm2		0.3	Negative	1
33	9/18/2020	12:36:53	405	Yellow	Metal	Pipe	Vertical		Intact	0.1 mg/cm2		0.3	Negative	1

34	9/18/2020 12:37:12	405	Red	Metal	Light Post	Vertical		Intact	0.1 mg/cm2	0.3 Negative	1
35	9/18/2020 12:38:06	405	Grey	Metal	Light Post	Vertical		Intact	0.3 mg/cm2	0.3 Negative	1
36	9/18/2020 12:38:20	405	Grey	Metal	Light Post	Vertical		Intact	0.3 mg/cm2	0.3 Negative	1
37	9/18/2020 12:38:29	405	Grey	Metal	Light Post	Vertical		Intact	0.4 mg/cm2	0.3 Negative	1
38	9/18/2020 14:33:40	5C32	White	Gypsum	Room	Wall	A		-0.1 mg/cm2	0.3 Negative	1
39	9/18/2020 14:33:56	5C32	White	Gypsum	Room	Wall	B		0.2 mg/cm2	0.3 Negative	1
40	9/18/2020 14:34:25	5C32	White	Gypsum	Room	Ceiling	-		0.5 mg/cm2	0.3 Negative	1
41	9/18/2020 14:34:57	5C32	Grey	Metal	Electric Panel		D		0.1 mg/cm2	0.3 Negative	1
42	9/18/2020 14:35:07	5C32	Grey	Metal	Electric Panel		D		0.2 mg/cm2	0.3 Negative	1
43	9/18/2020 14:37:44	5C-Corridor	White	Metal	Room	Ceiling	-		0.2 mg/cm2	0.3 Negative	1
44	9/18/2020 14:38:04	5C-Corridor	White	Metal	I-Beam		-		0.3 mg/cm2	0.3 Negative	1
45	9/18/2020 14:41:11				Calibration				1 mg/cm2	0.2 Positive	1
46	9/18/2020 14:41:31				Calibration				1.1 mg/cm2	0.2 Positive	1
47	9/18/2020 14:41:49				Calibration				1 mg/cm2	0.2 Positive	1



Appendix E

Sample Floor Plans



SIENNA

ENVIRONMENTAL TECHNOLOGIES
350 Elmwood Avenue Buffalo, New York 14222
ph: 716.332.3134 www.siennaet.com

SET #: 37116

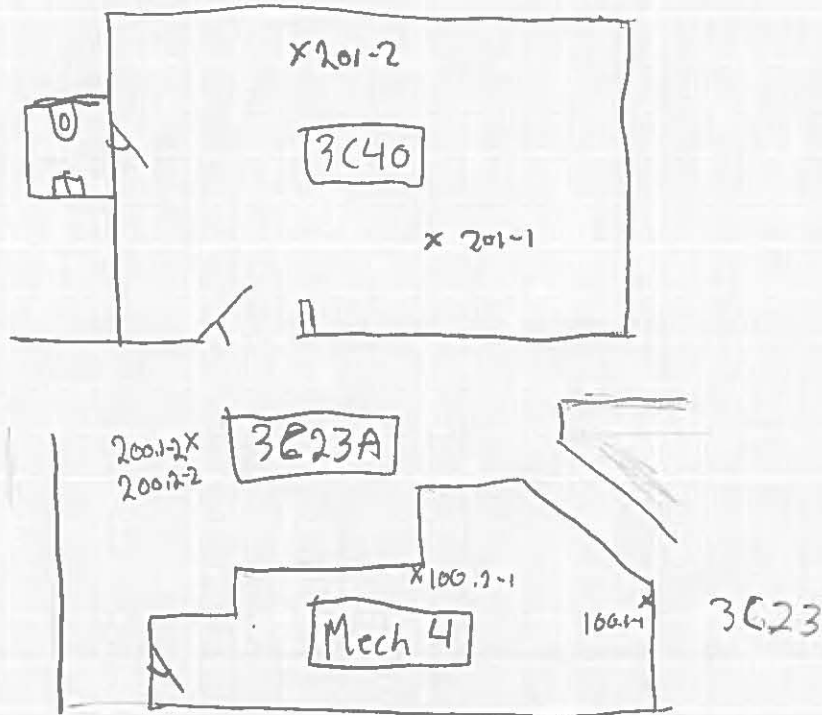
Date: 9/18/20

Project: Broome DSO Building 3C Electric

Room:

Scale: NTS

Visit: Inspection Design Coordination PM





SIENNA

ENVIRONMENTAL TECHNOLOGIES
350 Elmwood Avenue Buffalo, New York 14222
ph: 716.332.3134 www.siennaet.com

SET #: 3716

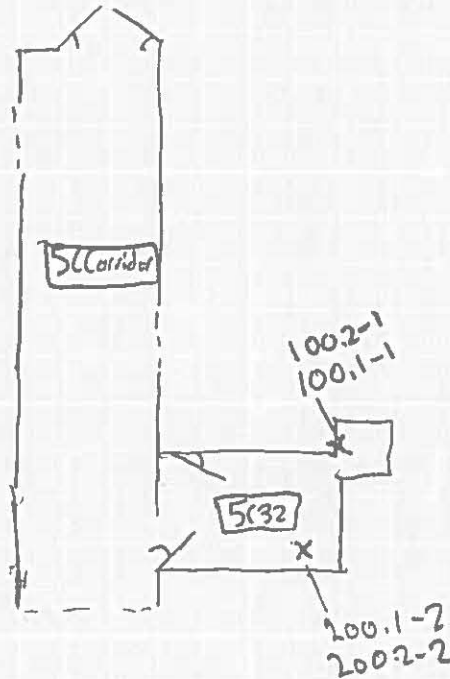
Date: 9/18/20

Project: Building 5C Electrical

Room: 5C32 + Corridor

Scale: NTS

Visit: Inspection Design Coordination PM





SIENNA

ENVIRONMENTAL TECHNOLOGIES
350 Elmwood Avenue Buffalo, New York 14222
ph: 716.332.3134 www.siennaet.com

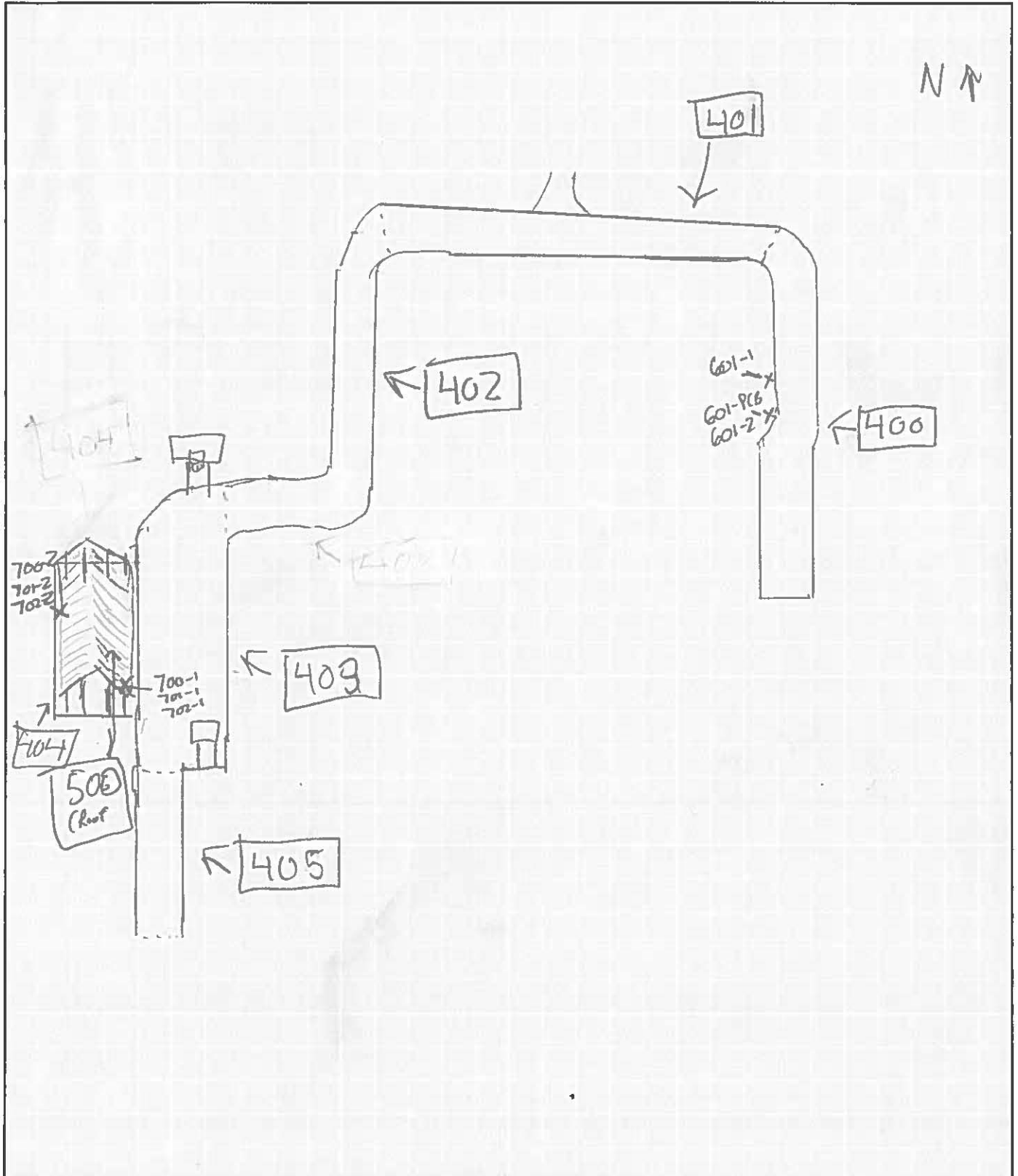
SET #: 3716 Date: 9/18/20

Project: DSO Bloome Outer Road/Partition

Room:

Scale:

Visit: Inspection Design Coordination PM



Appendix F

Summary of Inspected Functional Spaces



- Building 3C
Mechanical Room 4
- Building 3C
23A Theater Lobby
- Building 3C
40 Rehab Room
- Building 5C
32 Mechanical Room
- Building 5C
Corridor
- Pavilion
- Exterior Roadway, Court, & Parking Lot Area



Appendix G

Excerpt: ACGIH Interpretation Guidelines for Microbial Growth



According to ACGIH, “Data from individual sampling episodes is often interpreted with respect to baseline data from other environments or the same environment under anticipated low exposure conditions.” “In the absence of established acceptable exposure limits, it is often necessary to use a comparison standard when interpreting data. In this instance it will be necessary to sample the suspect area as well as a non-suspect area.”

Also, “...active fungal growth in indoor environments is inappropriate and may lead to exposure and adverse health effects.” ACGIH offers the following guidelines for interpreting total fungal spore counts, mycelial fragments and “toxic” molds:

Total Fungal Spore Counts

“...differences that can detect with manageable samples sizes are likely to be in 10-fold multiplicative steps. Following this logic, if total fungal spores are ten (10) times greater in the samples from a suspect area than in the negative control, then the sample area is considered to be a fungal amplification site. The presence of mycelial fragments provides evidence of microbial growth.”

Mycelial Fragments

Mycelium is a fungal mass that constitutes the vegetative or living body of a fungus. Following the same logic above, if total mycelial fragments are ten (10) times greater in the suspect sample than in the negative control, then the sample area is considered to be a fungal amplification site. The presence of mycelial fragments provides evidence of microbial growth.

“Toxic” Molds

Certain authorities refer to certain molds as important toxigenic taxa. The presence of a few spores of toxic mold should be interpreted with caution. Additionally, it should be recognized that these named molds are not necessarily the only ones of potential significance.



Appendix H

Excerpt: EPA Mold Remediation in Schools and Commercial Buildings – Table 2

Material or Furnishing Affected	Cleanup Methods†	Personal Protective Equipment	Containment
SMALL – Total Surface Area Affected Less Than 10 square feet (ft²)			
Books and papers	3	Minimum N-95 respirator, gloves, and goggles	None required
Carpet and backing	1, 3		
Concrete or cinder block	1, 3		
Hard surface, porous flooring (Linoleum, ceramic tile, vinyl)	1, 2, 3		
Non-porous, hard surfaces (Plastics, metals)	1, 2, 3		
Upholstered furniture & drapes	1, 3		
Wallboard (Drywall and gypsum board)	3		
Wood surfaces	1, 2, 3		
MEDIUM – Total Surface Area Affected Between 10 and 100 (ft²)			
Books and papers	3	Limited or Full Use professional judgment, consider potential for remediator exposure and size of contaminated area	Limited Use professional judgment, consider potential for remediator/occupant exposure and size of contaminated area
Carpet and backing	1, 3, 4		
Concrete or cinder block	1, 3		
Hard surface, porous flooring (Linoleum, ceramic tile, vinyl)	1, 2, 3		
Non-porous, hard surfaces (Plastics, metals)	1, 2, 3		
Upholstered furniture & drapes	1, 3, 4		
Wallboard (Drywall and gypsum board)	3, 4		
Wood surfaces	1, 2, 3		
LARGE – Total Surface Area Affected Greater Than 100 (ft²) or Potential for Increased Occupant or Remediator Exposure During Remediation Estimated to be Significant			
Books and papers	3	Full Use professional judgment, consider potential for remediator exposure and size of contaminated area	Full Use professional judgment, consider potential for remediator/occupant exposure and size of contaminated area
Carpet and backing	1, 3, 4		
Concrete or cinder block	1, 3		
Hard surface, porous flooring (Linoleum, ceramic tile, vinyl)	1, 2, 3, 4		
Non-porous, hard surfaces (Plastics, metals)	1, 2, 3		
Upholstered furniture & drapes	1, 3, 4		
Wallboard (Drywall and gypsum board)	3, 4		
Wood surfaces	1, 2, 3, 4		

*Refer to the following page for Cleanup Methods, PPE, and Containment details.

Cleanup Methods

- **Method 1:** Wet vacuum (in the case of porous materials, some mold spores/fragments will remain in the material but will not grow if the material is completely dried). Steam cleaning may be an alternative for carpets and some upholstered furniture.
- **Method 2:** Damp-wipe surfaces with plain water or with water and detergent solution (except wood —use wood floor cleaner); scrub as needed.
- **Method 3:** High-efficiency particulate air (HEPA) vacuum after the material has been thoroughly dried. Dispose of the contents of the HEPA vacuum in well-sealed plastic bags.
- **Method 4:** Discard - remove water-damaged materials and seal in plastic bags while inside of containment, if present. Dispose of as normal waste. HEPA vacuum area after it is dried.

Personal Protective Equipment (PPE)

- **Minimum:**
 - Gloves
 - N-95 respirator
 - Goggles/eye protection
- **Limited:**
 - Gloves
 - N-95 respirator or half-face respirator with HEPA filter
 - Disposable overalls
 - Goggles/eye protection
- **Full:**
 - Gloves
 - Disposable full body clothing
 - Head gear
 - Foot coverings
 - Full-face respirator with HEPA filter

Containment

- **Limited:**
 - Use polyethylene sheeting ceiling to floor around affected area with a slit entry and covering flap
 - Maintain area under negative pressure with HEPA filtered fan unit
 - Block supply and return air vents within containment area
- **Full:**
 - Use two layers of fire-retardant polyethylene sheeting with one airlock chamber
 - Maintain area under negative pressure with HEPA filtered fan exhausted outside of building
 - Block supply and return air vents within containment area



Contract
Drilling
and
Testing

CORTLAND OFFICE

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Cortland, New York 13045

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www.sjbegs.com

July 27, 2020

Dwight H. Wethey, P.E.
C&S Companies
dwethey@cscos.com
Office: (315) 455-2000
Mobile: (315) 730-9128

Re: Test Borings, Infiltration Testing, & Pavement Core Data
Broome Developmental Center Access Road and Parking Project
249 Glenwood Road
Binghamton, Broome County, New York

Dear Mr. Wethey;

As requested, SJB Services, Inc. (**SJB**) performed a series of test borings, infiltration testing, and pavement coring of existing asphalt at the referenced site. SJB completed the fieldwork, which consisted of drilling and soil sampling, installing the infiltration casing, presoaking, and performing the in-situ infiltration tests after the pre-soak period, coring of pavement at select locations to review the asphalt conditions, backfill all holes and restore the site.

C&S Companies (C&S) provided the attached test location plan to SJB indicating the test locations. C&S Companies also staked the test locations. SJB called in Dig Safe NY also subcontracted a private utility locator to mark underground utilities at test locations.

Pavement coring

The existing asphalt was cored at locations specified by C&S as follow. SJB cored and obtained 8-inch diameter asphalt core sample of the existing asphalt. The asphalt cores are identified to correspond to its test boring locations, i.e. C-8 was cored at B-8 test boring. . The asphalt core sample was obtained using portable coring equipment. The core holes were backfilled with asphalt cold patch material.

After coring of the asphalt was completed, the asphalt core samples were transported back to SJB's laboratory. The cores were photographed in our laboratory. The cores along with visual description of each retrieved core sample are presented in Attachment C.

Subsurface Conditions

Eleven (11) test borings were completed as part of our scope of work. The test borings were advanced to depths of between 5.3 feet and 16 feet below existing ground surface (bgs). The test

borings are identified as B-6, B-6A, B-7, B-7A, B-8, B-8A, and B-9 through B-13. The test borings were made using a Central Mine Equipment (CME) Model 550X rubber tire ATV drill rig. The split spoon sampling and standard penetration tests (SPTs) were completed continuously in general accordance with ASTM D1586 - *Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils*.

Test borings encountered topsoil or asphalt at the ground surface overlaying fill soils and/or native clays, silts, sands, and gravels. The topsoil was varying in thickness but on average was about 0.4 feet.

Fill/possible fill soils were noted in test borings B-6, B-7, B-8, B-12, and B-13 extending to depths between 2 to 4 feet bgs. In general fill/possible fill soils consisted of silty gravels with sands, sandy gravels with silts, sandy silts with gravels. Cobbles and/or shale rock fragments was present within some of the recovered fill soils at various depths.

Indigenous overburden soils consisted of varying amounts and proportions of clays, silts, sands and gravels. These soils are ML, SM, GM, and GP-GM group soils, using the Unified Soil Classification System (USCS). The SPT “N” values in the cohesionless indigenous soils ranged from 4 to greater than 50 indicating the relative density of these soils ranged between “loose” and “very compact”. Cobbles, boulders and/or shale rock fragments were present within some of the recovered native soils at various depths and were also noted by drillers.

Auger refusal was met at B-8A, B-11, and B-13 locations at depths of 5.3 feet, 8.4 feet and 9.8 feet, respectively suggesting possible presence of bedrock. After meeting auger refusal, rock coring was performed in B-11 and B-13. The coring was completed in general accordance with *ASTM D 2113 – “Standard Practice for Rock Core Drilling and Sampling of Rock for Site Investigation”*, using an NQ size double tube core barrel.

It was found that the refusal material in B-11 was a boulder. The recovered bedrock core samples obtained from B-3 consisted of gray, medium hard, weathered, and laminated to bedded shale with a core recovery value of 83% and The Rock Quality Designation (RQD) value was 17% indicating a rock mass quality of “very poor”.

For information purposes, the Geologic Map of New York, Finger Lakes Sheet (New York State Education Department, 1970) maps bedrock underlying the project site as Shales and Siltstones of West Falls Group.

Groundwater Conditions

Water level measurements were made in the test borings during drilling and after completion of drilling operations. These measurements are noted on the subsurface exploration logs in Attachment A. The field data indicates that freestanding water was not observed in the test borings at the project site.

It is also possible that water may not have had sufficient time to accumulate and/or achieve a static level in the boreholes within the time period that had elapsed from the completion of drilling to the time of the measurement. It should be expected that both perched and general groundwater conditions could vary with location and with changes in soil conditions, precipitation and seasonal conditions.

The test boring logs along with general information and a key of terms and symbols used to prepare the logs are presented in Attachment A.

Infiltration Testing

Five (5) infiltration testing was conducted in general conformance with the infiltration test procedure presented in the *NYSDEC Publication “Stormwater Management Design Manual – January 2015” – Appendix D: Infiltration Testing Requirements*. Infiltration test results are presented on the *Infiltration Test Summary* sheets in Attachment B and test data along with the soils description at the infiltration depth are summarized in table below:

Table 1 – Infiltration Test Results		
Location	Average of Four Runs (inches/hr)	General Material / Soil Description (infiltration zone-below the bottom of casing)
IT-4	1.7	Gravelly silt with sand and shale fragments (moist, very compact)
IT-5*	6.5	Sandy silt with gravel (moist, compact)
IT-6*	22.26	Sandy silt with gravel (moist, compact)
IT-7	6.87	Gravelly-sandy silt with shale fragments (moist, firm)
IT-8	0.38	Gravelly silt with sand (moist, compact)

*soil description from test boring B-7

Closure

We would like to thank you for this opportunity to assist you with your project. The soil, pavement and rock core samples will be stored in our facility for a period of about 60 days from date of this report then they will be disposed of. If you have any questions or require any additional services, please contact us

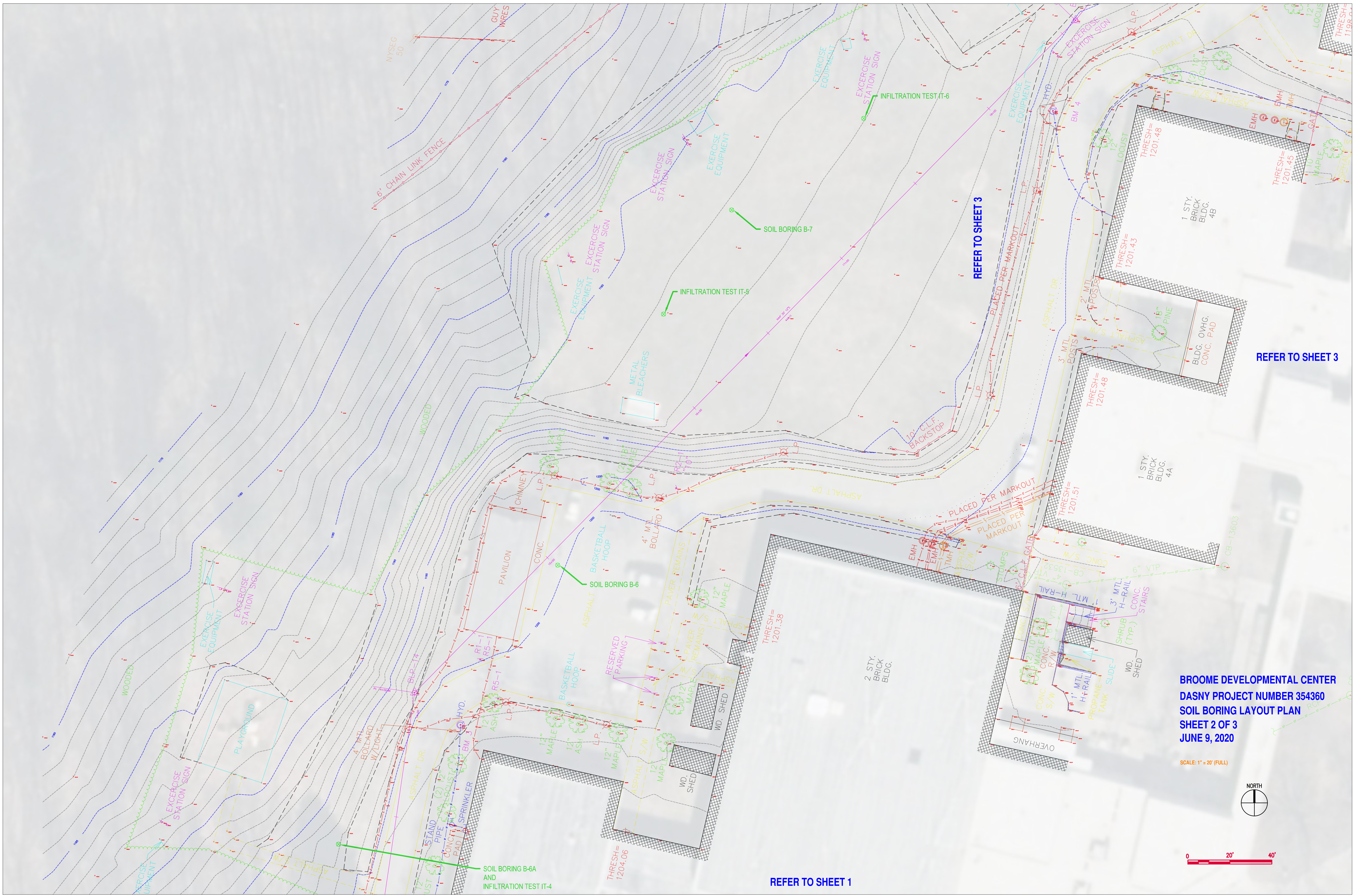
Respectfully Submitted,
SJB SERVICES, INC.



Parviz Akbari, EIT
 Cortland Office Manager

Attachments: Test Location Plan (provided by C&S), Attachments A, B, & C

FIGURES



REFER TO SHEET 3

REFER TO SHEET 3

REFER TO SHEET 1

BROOME DEVELOPMENTAL CENTER
DASNY PROJECT NUMBER 354360
SOIL BORING LAYOUT PLAN
SHEET 2 OF 3
JUNE 9, 2020

SCALE: 1" = 20' (FULL)



SOIL BORING B-6A
 AND
 INFILTRATION TEST IT-4

REFER TO SHEET 2

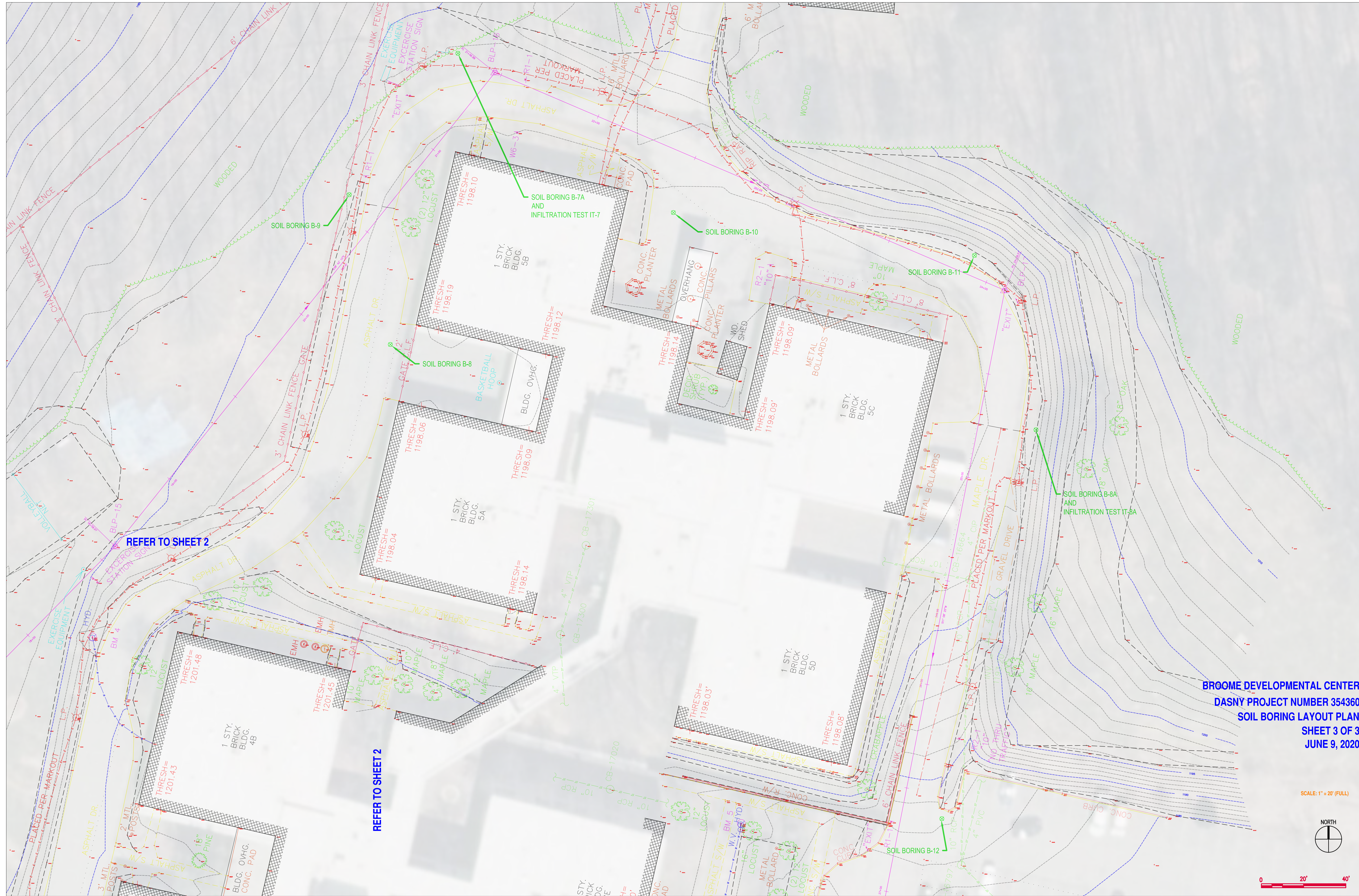
SOIL BORING B-6A AND INFILTRATION TEST IT-4

SOIL BORING B-13

BROOME DEVELOPMENTAL CENTER
DASNY PROJECT NUMBER 354360
SOIL BORING LAYOUT PLAN
SHEET 1 OF 3
JUNE 9, 2020

SCALE: 1" = 20' (FULL)





REFER TO SHEET 2

REFER TO SHEET 2

BROOME DEVELOPMENTAL CENTER
DASNY PROJECT NUMBER 354360
SOIL BORING LAYOUT PLAN
SHEET 3 OF 3
JUNE 9, 2020

SCALE: 1" = 20' (FULL)



ATTACHMENT A

Subsurface Exploration Logs

DATE _____
 STARTED _____
 FINISHED _____
 SHEET _____ OF _____



SJB SERVICES, INC. SUBSURFACE LOG

PROJ. No. _____
 HOLE No. _____
 SURF. ELEV. _____
 G.W. DEPTH _____

PROJECT _____ LOCATION _____

DEPTH (ft)	SAMPLES	SAMPLE No.	BLOWS ON SAMPLER					BLOWS ON CASING	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	N			
0										
1			3	3	4	8	7	10	3" TOPSOIL	Groundwater at 10' upon completion, and 5' 24 hrs. after completion
2								15	Brown SILT, some Sand, trace clay, ML (Moist-Loose)	
3								50/5		Run#1, 2.5'-5.0' 95% Recovery 50% RQD
4									Gray SHALE, medium hard, weathered, thin bedded, some fractures	
5										

TABLE I

	Split Spoon Sample
	Shelby Tube Sample
	Geoprobe Macro-Core
	Auger or Test Pit Sample
	Rock Core

TABLE II

Identification of soil type is made on basis of an estimate of particle sizes, and in the case of fine grained soils also on basis of plasticity.

Soil Type	Soil Particle Size	
Boulder	>12"	
Cobble	3" - 12"	
Gravel - Coarse	3" - 3/4"	Coarse Grained (Granular)
- Fine	3/4" - #4	
Sand - Coarse	#4 - #10	Fine Grained
- Medium	#10 - #40	
- Fine	#40 - #200	
Silt - Non Plastic (Granular)	<#200	
Clay - Plastic (Cohesive)		

TABLE III

The following terms are used in classifying soils consisting of mixtures of two or more soil types. The estimate is based on weight of total sample.

Term	Percent of Total Sample
"and"	35 - 50
"some"	20 - 35
"little"	10 - 20
"trace"	less than 10

(When sampling gravelly soils with a standard split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter.)

TABLE IV

The relative compactness or consistency is described in accordance with the following terms:

Granular Soils		Cohesive Soils	
Term	Blows per Foot, N	Term	Blows per Foot, N
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Firm	10 - 30	Medium	4 - 8
Compact	30 - 50	Stiff	8 - 15
Very Compact	>50	Very Stiff	15 - 30
		Hard	>30

(Large particles in the soils will often significantly influence the blows per foot recorded during the penetration test)

TABLE V

Varved	Horizontal uniform layers or seams of soil(s).
Layer	Soil deposit more than 6" thick.
Seam	Soil deposit less than 6" thick.
Parting	Soil deposit less than 1/8" thick.
Laminated	Irregular, horizontal and angled seams and partings of soil(s).

TABLE VI

Rock Classification Term	Meaning
Hardness	
- Soft	Scratched by fingernail
- Medium Hard	Scratched easily by penknife
- Hard	Scratched with difficulty by penknife
- Very Hard	Cannot be scratched by penknife
Weathering	
- Very Weathered	Judged from the relative amounts of disintegration, iron staining, core recovery, clay seams, etc.
- Weathered	
- Sound	

Rock Classification Term	Meaning
Bedding	
- Laminated	(<1")
- Thin Bedded	(1" - 4")
- Bedded	(4" - 12")
- Thick Bedded	(12" - 36")
- Massive	(>36")

(Fracturing refers to natural breaks in the rock oriented at some angle to the rock layers)

GENERAL INFORMATION & KEY TO SUBSURFACE LOGS

The Subsurface Logs attached to this report present the observations and mechanical data collected by the driller at the site, supplemented by classification of the material removed from the borings as determined through visual identification by technicians in the laboratory. It is cautioned that the materials removed from the borings represent only a fraction of the total volume of the deposits at the site and may not necessarily be representative of the subsurface conditions between adjacent borings or between the sampled intervals. The data presented on the Subsurface Logs together with the recovered samples provide a basis for evaluating the character of the subsurface conditions relative to the project. The evaluation must consider all the recorded details and their significance relative to each other. Often analyses of standard boring data indicate the need for additional testing or sampling procedures to more accurately evaluate the subsurface conditions. Any evaluation of the contents of this report and recovered samples must be performed by qualified professionals. The following information defines some of the procedures and terms used on the Subsurface Logs to describe the conditions encountered, consistent with the numbered identifiers shown on the Key opposite this page.

1. The figures in the Depth column define the scale of the Subsurface Log.
2. The Samples column shows, graphically, the depth range from which a sample was recovered. See Table I for descriptions of the symbols used to represent the various types of samples.
3. The Sample No. is used for identification on sample containers and/or Laboratory Test Reports.
4. Blows on Sampler - shows the results of the "Penetration Test", recording the number of blows required to drive a split spoon sampler into the soil. The number of blows required for each six inches is recorded. The first 6 inches of penetration is considered a seating drive. The number of blows required for the second and third 6 inches of penetration is termed the penetration resistance, N.
5. Blows on Casing - Shows the number of blows required to advance the casing a distance of 12 inches. The casing size, hammer weight, and length of drop are noted at the bottom of the Subsurface Log. If the casing is advanced by means other than driving, the method of advancement will be indicated in the Notes column or under the Method of Investigation at the bottom of the Subsurface Log. Alternatively, sample recovery may be shown in this column, or other data consistent with the column heading.
6. All recovered soil samples are reviewed in the laboratory by an engineering technician, geologist or geotechnical engineer, unless noted otherwise. Visual descriptions are made on the basis of a combination of the driller's field descriptions and noted observations together with the sample as received in the laboratory. The method of visual classification is based primarily on the Unified Soil Classification System (ASTM D 2487) with regard to the particle size and plasticity (See Table No. II), and the Unified Soil Classification System group symbols for the soil types are sometimes included with the soil classification. Additionally, the relative portion, by weight, of two or more soil types is described for granular soils in accordance with "Suggested Methods of Test for Identification of Soils" by D.M. Burmister, ASTM Special Technical Publication 479, June 1970. (See Table No. III). Description of the relative soil density or consistency is based upon the penetration records as defined in Table No. IV. The description of the soil moisture is based upon the relative wetness of the soil as recovered and is described as dry, moist, wet and saturated. Water introduced into the boring either naturally or during drilling may have affected the moisture condition of the recovered sample. Special terms are used as required to describe soil deposition in greater detail; several such terms are listed in Table V. When sampling gravelly soils with a standard two inch diameter split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter. The presence of boulders and large gravel is sometimes, but not necessarily, detected by an evaluation of the casing and sampler blows or through the "action" of the drill rig as reported by the driller.
7. Rock description is based on review of the recovered rock core and the driller's notes. Frequently used rock classification terms are included in Table VI.
8. The stratification lines represent the approximate boundary between soil types and the transition may be gradual. Solid stratification lines delineate apparent changes in soil type, based upon review of recovered soil samples and the driller's notes. Dashed lines convey a lesser degree of certainty with respect to either a change in soil type or where such change may occur.
9. Miscellaneous observations and procedures noted by the driller are shown in this column, including water level observations. It is important to realize the reliability of the water level observations depends upon the soil type (water does not readily stabilize in a hole through fine grained soils), and that any drill water used to advance the boring may have influenced the observations. The ground water level will fluctuate seasonally, typically. One or more perched or trapped water levels may exist in the ground seasonally. All the available readings should be evaluated. If definite conclusions cannot be made, it is often prudent to examine the conditions more thoroughly through test pit excavations or groundwater observation wells.
10. The length of core run is defined as the length of penetration of the core barrel. Core recovery is the length of core recovered divided by the core run. The RQD (Rock Quality Designation) is the total length of pieces of NX core exceeding 4 inches divided by the core run. The size core barrel used is also noted in the Method of Investigation at the bottom of the Subsurface Log.

STARTED: 6-18-2020
 FINISHED: 6-18-2020



SUBSURFACE LOG

HOLE NO. B-6A
 SURF. ELEV. G.S.'
 G.W. DEPTH See Notes
 SHEET 1 of 1

PROJECT: Broome Developmental Center Access Rd & Parking LOCATION: 249 Glenwood Road
 CLIENT: C&S Engineering Inc. Binghamton, Broome Co., New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24	N			
		S-1	4	5	8	8	13	1.4	Brownish gray SILT, some Gravel, little Sand (moist, firm, GM)	Driller noted approximately 0.4 ft of topsoil at ground surface.	
5		S-2	17	26	34	46	60	2.0	Contains "some" Shale fragments (very compact)		
10		S-3	12	22	23	48	45	2.0	(compact)		
									Test boring complete at 12.0 feet.	Freestanding water was not encountered during sampling or after completion of sampling.	
15											
20											
25											
30											
35											
40											

DRILLER: C. Brown DRILL RIG: CME-550X
 METHOD OF INVESTIGATION: 4 1/4" HSA, 2" Split Spoon Sampler (ASTMD1586)
 JOB NUMBER: CE-20-002 CLASSIFIED BY: Geotechnical Engineer

STARTED: 6-17-2020
 FINISHED: 6-17-2020



SUBSURFACE LOG

HOLE NO. B-7
 SURF. ELEV. G.S'
 G.W. DEPTH See Notes
 SHEET 1 of 1

PROJECT: Broome Developmental Center Access Rd & Parking LOCATION: 249 Glenwood Road
 CLIENT: C&S Engineering Inc. Binghamton, Broome Co., New York

DEPTH-FT.	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
		0-6	6-12	12-18	18-24	24-N	N			
5 10 15	S-1	7	8	15	14	23	1.8	Fill: Gray-brown GRAVEL, some Silt, little Sand (moist, firm, GM)	Driller noted approximately 0.4 ft of topsoil at ground surface. Driller noted cobbles at various depths.	
	S-2	14	16	15	15	31	2.0	Brown SILT, little Sand, little Gravel (moist, compact, ML)		
	S-3	7	12	18	26	30	1.6			
	S-4	23	15	21	20	36	1.6	Contains "trace" shale fragments		
	S-5	20	32	33	36	65	2.0	(very compact)		
	S-6	26	34	40	36	74	1.0	Contains "some" Shale fragments		
	S-7	30	32	37	48	69	0.2	Contains "Rock/ Cobble" fragments (wet)		
	S-8	36	39	50/2	-	Ref.	2.0	Brown GRAVEL/Rock fragments, some Sand, some Silt (wet, very compact)		
Test boring complete at 15.2 feet.									Freestanding water was not encountered during sampling or after completion of sampling.	

DRILLER: C. Brown DRILL RIG: CME-550X
 METHOD OF INVESTIGATION: 4 1/4" HSA, 2" Split Spoon Sampler (ASTMD1586)
 JOB NUMBER: CE-20-002 CLASSIFIED BY: Geotechnical Engineer

STARTED: 6-16-2020
 FINISHED: 6-16-2020



SUBSURFACE LOG

HOLE NO. B-7A
 SURF. ELEV. G.S.'
 G.W. DEPTH See Notes
 SHEET 1 of 1

PROJECT: Broome Developmental Center Access Rd & Parking LOCATION: 249 Glenwood Road
 CLIENT: C&S Engineering Inc. Binghamton, Broome Co., New York

DEPTH-FT.	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
		0	6	12	18	24	N			
	S-1	5	7	6	7	13	1.4	Brown SILT, little Gravel/Shale fragments, trace sand (moist, firm, ML)	Driller noted approximately 0.4 ft of topsoil at ground surface.	
	S-2	6	10	14	12	24	1.2	Grades to "little" Sand, "trace" clay		
5	S-3	7	10	16	16	26	1.6			
	S-4	14	16	19	22	35	1.4	Similar (compact)		
	S-5	13	18	20	25	38	2.0	Grades to "some" Shale fragments, "some" Sand		
10	S-6	30	50.4	-	-	Ref.	0.5	(very compact)		
	Test boring complete at 10.9 feet with spoon refusal.								Freestanding water was not encountered during sampling or after completion of sampling.	

DRILLER: C. Brown DRILL RIG: CME-550X
 METHOD OF INVESTIGATION: 4 1/4" HSA, 2" Split Spoon Sampler (ASTMD1586)
 JOB NUMBER: CE-20-002 CLASSIFIED BY: Geotechnical Engineer

STARTED: 6-16-2020
 FINISHED: 6-16-2020



SUBSURFACE LOG

HOLE NO. B-8
 SURF. ELEV. G.S'
 G.W. DEPTH See Notes
 SHEET 1 of 1

PROJECT: Broome Developmental Center Access Rd & Parking LOCATION: 249 Glenwood Road
 CLIENT: C&S Engineering Inc. Binghamton, Broome Co., New York

DEPTH-FT.	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
		0	6	12	18	24	N			
5	S-1	-	9	10	10	20	1.2	Fill: Gray GRAVEL, some Sand, some Silt (moist, firm, GP-GM)	Driller noted approximately 4.5 inches of asphalt at ground surface. Driller noted cobbles at various depths. Ref.: spoon refusal	
	S-2	20	19	22	24	41	1.4	Brown SILT, little Sand, little Gravel (moist, compact, ML)		
	S-3	34	48	40	40	88	2.0	Grades to "trace to some" Shale fragments (very compact)		
	S-4	20	29	36	48	65	2.0			
10	S-5	19	33	29	36	62	1.2	Brown GRAVEL/Shale fragments, some Sand, some Silt (moist, very compact, GP-GM)		
	S-6	11	20	17	17	37	1.2	(compact)		
	S-7	36	50/3	-	-	Ref.	0.3	(very compact)		
15	S-8	20	50/4	-	-	Ref.	0.7	(very moist)		
	Test boring complete at 14.9 feet.								Freestanding water was not encountered during sampling or after completion of sampling.	

DRILLER: C. Brown DRILL RIG: CME-550X
 METHOD OF INVESTIGATION: 4 1/4" HSA, 2" Split Spoon Sampler (ASTMD1586)
 JOB NUMBER: CE-20-002 CLASSIFIED BY: Geotechnical Engineer

STARTED: 6-15-2020
 FINISHED: 6-15-2020



SUBSURFACE LOG

HOLE NO. B-8A
 SURF. ELEV. G.S.'
 G.W. DEPTH See Notes
 SHEET 1 of 1

PROJECT: Broome Developmental Center Access Rd & Parking LOCATION: 249 Glenwood Road
 CLIENT: C&S Engineering Inc. Binghamton, Broome Co., New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24	N			
		S-1	8	6	6	15	12	1.2	Brown SILT, little Sand, little Gravel (moist, firm, ML)	Driller noted approximately 0.4 ft of topsoil at ground surface. Ref.: spoon Refusal.	
		S-2	20	22	20	20	42	1.8	Grades to "some" Gravel (compact)		
5		S-3	8	35	50/3	-	Ref.	1.6	(very compact) Test boring complete at 5.3 feet with spoon and auger refusal.		
										Freestanding water was not encountered during sampling or after completion of sampling.	
40											

DRILLER: C. Brown DRILL RIG: CME-550X
 METHOD OF INVESTIGATION: 4 1/4" HSA, 2" Split Spoon Sampler (ASTMD1586)
 JOB NUMBER: CE-20-002 CLASSIFIED BY: Geotechnical Engineer

STARTED: 6-16-2020
 FINISHED: 6-16-2020



SUBSURFACE LOG

HOLE NO. B-9
 SURF. ELEV. G.S.'
 G.W. DEPTH See Notes
 SHEET 1 of 1

PROJECT: Broome Developmental Center Access Rd & Parking LOCATION: 249 Glenwood Road
 CLIENT: C&S Engineering Inc. Binghamton, Broome Co., New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24			
5		S-1	5	4	6	6	10	1.2	Brown SILT, little Sand, little Gravel (moist, loose, ML) (firm) (compact) (very compact)	Driller noted approximately 0.4 ft of topsoil at ground surface. Ref.: spoon Refusal.
		S-2	8	8	19	14	27	1.4		
		S-3	11	20	29	30	49	1.6		
		S-4	36	39	42	50	81	1.6		
		S-5	50	50/4	-	-	Ref.	1.6		
10									Test boring complete at 8.9 feet with spoon refusal.	Freestanding water was not encountered during sampling or after completion of sampling.
11										
12										
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35										
36										
37										
38										
39										
40										

DRILLER: C. Brown DRILL RIG: CME-550X
 METHOD OF INVESTIGATION: 4 1/4" HSA, 2" Split Spoon Sampler (ASTMD1586)
 JOB NUMBER: CE-20-002 CLASSIFIED BY: Geotechnical Engineer

STARTED: 6-15-2020
 FINISHED: 6-15-2020



SUBSURFACE LOG

HOLE NO. B-10
 SURF. ELEV. G.S.'
 G.W. DEPTH See Notes
 SHEET 1 of 1

PROJECT: Broome Developmental Center Access Rd & Parking LOCATION: 249 Glenwood Road
 CLIENT: C&S Engineering Inc. Binghamton, Broome Co., New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24	N			
5		S-1	-	10	10	12	22	2.0	Brown SILT, little Sand, little Gravel (moist, firm, ML) (compact) (firm) (compact) (very compact)	Driller noted approximately 4.5 inches of asphalt at ground surface. S-4: Poor recovery.	
		S-2	12	12	20	15	32	1.0			
		S-3	7	15	14	14	29	2.0			
		S-4	17	18	19	20	37	0.2			
		S-5	26	37	40	40	77	1.8			
10									Test boring complete at 10 feet.	Freestanding water was not encountered during sampling or after completion of sampling.	
11											
12											
13											
14											
15											
16											
17											
18											
19											
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21											
22											
23											
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30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											

DRILLER: C. Brown DRILL RIG: CME-550X
 METHOD OF INVESTIGATION: 4 1/4" HSA, 2" Split Spoon Sampler (ASTMD1586)
 JOB NUMBER: CE-20-002 CLASSIFIED BY: Geotechnical Engineer

STARTED: 6-15-2020
 FINISHED: 6-15-2020



SUBSURFACE LOG

HOLE NO. B-11
 SURF. ELEV. G.S.'
 G.W. DEPTH See Notes
 SHEET 1 of 1

PROJECT: Broome Developmental Center Access Rd & Parking LOCATION: 249 Glenwood Road
 CLIENT: C&S Engineering Inc. Binghamton, Broome Co., New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24	N			
		S-1	4	4	2	10	6	0.6	Brown SILT, little Sand, little Gravel, trace shale (moist, loose, ML)	Driller noted approximately 0.4 ft of topsoil at ground surface. Driller noted cobbles throughout drilling. Auger refusal at 8.4 feet. Ref.: spoon Refusal.	
		S-2	26	14	6	6	20	1.2	Contains "cobble" fragments (firm)		
5		S-3	11	14	16	19	30	0.3	Gray SILT, some Gravel, little Clay, trace sand (wet, firm, ML)		
		S-4	17	21	38	50	59	2.0	Brown SILT, little Sand, little Gravel, trace shale (moist, very compact, ML)		
		S-5	50/4	-	-	-	Ref.	0.0	No recovery		
10		R-1						0.8	BOULDER	Run No. 1: 8.4' to 13.4' 15% Recovery 0%RQD	
15									Test boring complete at 13.4 feet after coring through boulder.	Freestanding water was not encountered during sampling or after completion of sampling.	
20											
25											
30											
35											
40											

DRILLER: C. Brown DRILL RIG: CME-550X
 METHOD OF INVESTIGATION: 4 1/4" HSA, 2" Split Spoon Sampler (ASTMD1586)
 JOB NUMBER: CE-20-002 CLASSIFIED BY: Geotechnical Engineer

STARTED: 6-15-2020
 FINISHED: 6-15-2020



SUBSURFACE LOG

HOLE NO. B-12
 SURF. ELEV. G.S.'
 G.W. DEPTH See Notes
 SHEET 1 of 1

PROJECT: Broome Developmental Center Access Rd & Parking LOCATION: 249 Glenwood Road
 CLIENT: C&S Engineering Inc. Binghamton, Broome Co., New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24	N			
		S-1	-	5	4	4	8	1.2	Possible Fill: Dark brown SILT, little Sand, little Gravel, trace clay (moist, loose, ML)	Driller noted approximately 4.25 inches of asphalt at ground surface.	
		S-2	6	8	8	7	16	1.4	Becomes brown (firm)		
5		S-3	5	3	1	1	4	1.0	Dark brown/gray f.-m. SAND, trace silt (wet, loose, SM)		
		S-4	1	1	13	14	14	1.4	Brown SILT, little Sand, little Gravel (wet to moist, firm, ML)		
		S-5	16	18	17	22	35	2.0	(moist, compact)		
10		Test boring complete at 10 feet.								Freestanding water was not encountered during sampling or after completion of sampling.	
15											
20											
25											
30											
35											
40											

DRILLER: C. Brown DRILL RIG: CME-550X
 METHOD OF INVESTIGATION: 4 1/4" HSA, 2" Split Spoon Sampler (ASTMD1586)
 JOB NUMBER: CE-20-002 CLASSIFIED BY: Geotechnical Engineer

STARTED: 6-18-2020
 FINISHED: 6-18-2020



SUBSURFACE LOG

HOLE NO. B-13
 SURF. ELEV. G.S.'
 G.W. DEPTH See Notes
 SHEET 1 of 1

PROJECT: Broome Developmental Center Access Rd & Parking LOCATION: 249 Glenwood Road
 CLIENT: C&S Engineering Inc. Binghamton, Broome Co., New York

DEPTH-FT.	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
		0	6	12	18	24	N			
5	S-1	-	5	5	10	15	1.5	Fill: Brown GRAVEL, some Sand, little Silt (moist, firm, GP-GM)	Driller noted approximately 4.5 inches of asphalt at ground surface.	
	S-2	22	17	19	20	36	1.8	Possible Fill: Gray GRAVEL/Cobble fragments, some Sand, little Silt (moist, compact, GP)		
	S-3	23	42	22	16	64	2.0	Brown SILT, some Gravel, some Sand (moist, very compact, GM)		
	S-4	18	18	22	28	40	1.4	(compact)		
	S-5	22	29	36	50/4	65	0.4	(very compact)		
10	R-1						4.5	Gray SHALE, medium hard, weathered, laminated to bedded.	Run No. 1: 9.8'-15.6' 83% Recovery 17% RQD	
15.6	Test boring complete at 15.6 feet.								Freestanding water was not encountered during sampling or after completion of sampling.	

DRILLER: C. Brown DRILL RIG: CME-550X
 METHOD OF INVESTIGATION: 4 1/4" HSA, 2" Split Spoon Sampler (ASTMD1586)
 JOB NUMBER: CE-20-002 CLASSIFIED BY: Geotechnical Engineer

ATTACHMENT B

Infiltration Test Data Summary



INFILTRATION TEST DATA SUMMARY

PROJECT: Broome Developmental Center
 LOCATION: Johnson City, NY
 PROJECT NO.: CE-20-002

INFILTRATION TEST POINT: IT-4

Diameter of Casing 4.00 inches

TEST DATA

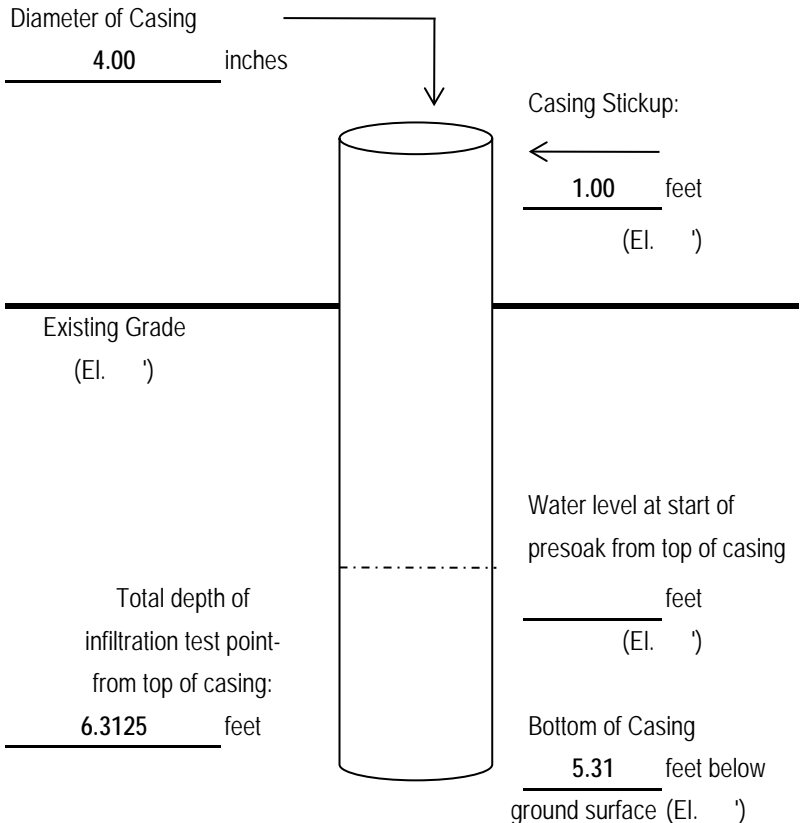
TEST DATE: 6/24/2020
 START OF TEST TIME: 9:36 AM

IS THERE PRESOAK WATER IN TEST CASING?

YES

IF YES, WHAT DEPTH:

5.21 FEET FROM TOP OF CASING.
 (El. ')



RUN NUMBER	START TIME (HOURS)	END TIME (HOURS)	ELAPSED TIME (MIN)	DROP IN WATER LEVEL DURING TEST RUN (FEET)	REFILLED WITH WATER, LEVEL FROM TOP OF CASING (FEET)
START	9:36				4.31
RUN #1	9:36	10:36	60 Min	0.28	4.31
RUN #2	10:36	11:36	60 Min	0.29	4.31
RUN #3	11:36	12:36	60 Min	0	4.31
RUN #4	12:36	1:36	60 Min	0	4.31

AVERAGE INFILTRATION RATE 0.14 FEET PER HOUR
 AVERAGE INFILTRATION RATE 1.7 INCHES PER HOUR

TESTED BY: T. Myers



INFILTRATION TEST DATA SUMMARY

PROJECT: Broome Developmental Center
 LOCATION: Johnson City, NY
 PROJECT NO.: CE-20-002

INFILTRATION TEST POINT: IT-5

Diameter of Casing 4.00 inches

TEST DATA

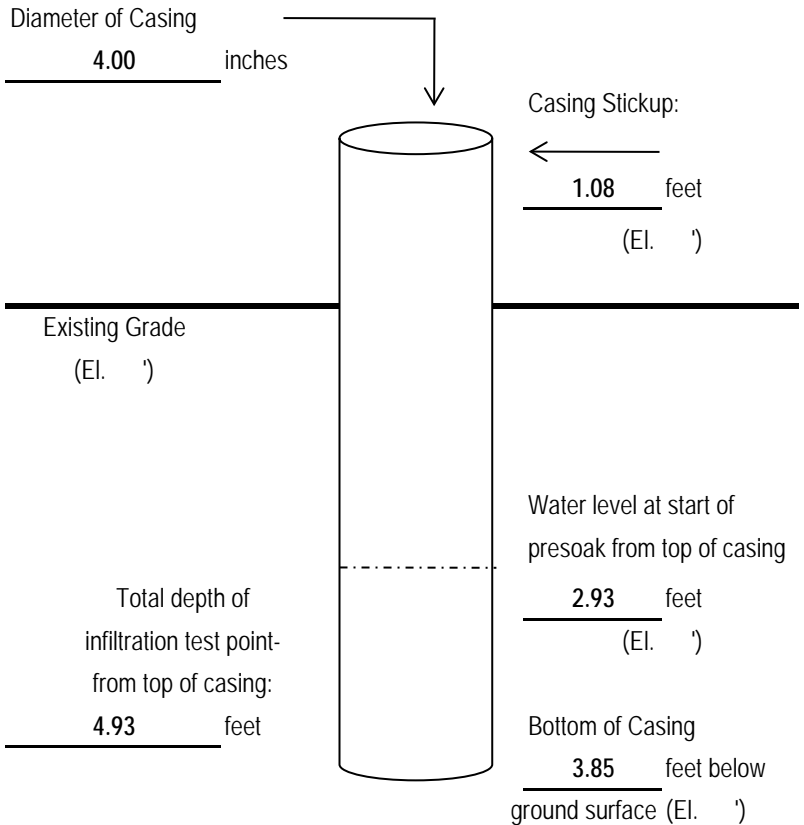
TEST DATE: 6/24/2020
 START OF TEST TIME: 9:52 AM

IS THERE PRESOAK WATER IN TEST CASING?

NO

IF YES, WHAT DEPTH:

 FEET FROM TOP OF CASING.
 (El. ')



RUN NUMBER	START TIME (HOURS)	END TIME (HOURS)	ELAPSED TIME (MIN)	DROP IN WATER LEVEL DURING TEST RUN (FEET)	REFILLED WITH WATER, LEVEL FROM TOP OF CASING (FEET)
START	9:52				2.93
RUN #1	9:52	10:52	60 Min	1.07	2.93
RUN #2	10:52	11:52	60 Min	0.68	2.93
RUN #3	11:52	12:52	60 Min	.03	2.93
RUN #4	12:52	1:52	60 Min	.12	2.93

AVERAGE INFILTRATION RATE 0.54 FEET PER HOUR
 AVERAGE INFILTRATION RATE 6.5 INCHES PER HOUR

TESTED BY: T. Myers



INFILTRATION TEST DATA SUMMARY

PROJECT: Broome Developmental Center
 LOCATION: Johnson City, NY
 PROJECT NO.: CE-20-002

INFILTRATION TEST POINT: IT- 6

Diameter of Casing 4.00 inches

TEST DATA

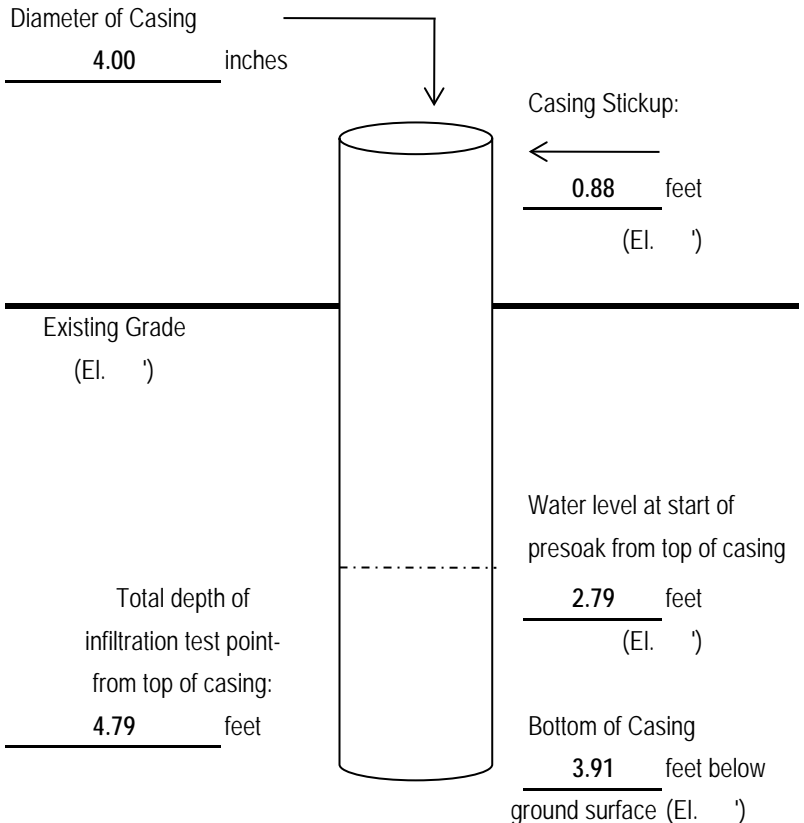
TEST DATE: 6/24/2020
 START OF TEST TIME: 10:00 AM

IS THERE PRESOAK WATER IN TEST CASING?

NO

IF YES, WHAT DEPTH:

 FEET FROM TOP OF CASING.
 (El. ')



RUN NUMBER	START TIME (HOURS)	END TIME (HOURS)	ELAPSED TIME (MIN)	DROP IN WATER LEVEL DURING TEST RUN (FEET)	REFILLED WITH WATER, LEVEL FROM TOP OF CASING (FEET)
START	10:00				2.79
RUN #1	10:00	11:00	60 Min	1.81	2.79
RUN #2	11:00	12:00	60 Min	1.61	2.79
RUN #3	12:00	1:00	60 Min	2	2.79
RUN #4	1:00	2:00	60 Min	2	2.79

AVERAGE INFILTRATION RATE 1.86 FEET PER HOUR
 AVERAGE INFILTRATION RATE 22.26 INCHES PER HOUR

TESTED BY: T. Myers



INFILTRATION TEST DATA SUMMARY

PROJECT: Broome Developmental Center
 LOCATION: Johnson City, NY
 PROJECT NO.: CE-20-002

INFILTRATION TEST POINT: IT - 7

Diameter of Casing 4.00 inches

TEST DATA

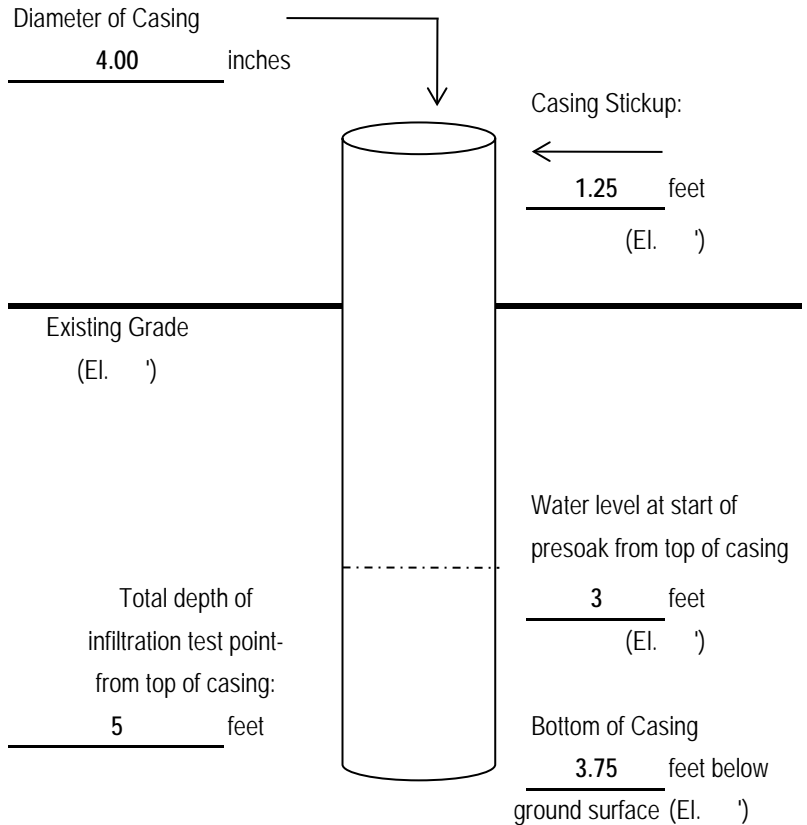
TEST DATE: 6/24/2020
 START OF TEST TIME: 10:08 AM

IS THERE PRESOAK WATER IN TEST CASING?

NO

IF YES, WHAT DEPTH:

 FEET FROM TOP OF CASING.
 (El. ')



RUN NUMBER	START TIME (HOURS)	END TIME (HOURS)	ELAPSED TIME (MIN)	DROP IN WATER LEVEL DURING TEST RUN (FEET)	REFILLED WITH WATER, LEVEL FROM TOP OF CASING (FEET)
START	10:08				3
RUN #1	10:08	11:08	60 Min	1.10	3
RUN #2	11:08	12:08	60 Min	0.59	3
RUN #3	12:08	1:08	60 Min	0.34	3
RUN #4	1:08	2:08	60 Min	0.28	3

AVERAGE INFILTRATION RATE 0.57 FEET PER HOUR
 AVERAGE INFILTRATION RATE 6.87 INCHES PER HOUR

TESTED BY: T. Myers



INFILTRATION TEST DATA SUMMARY

PROJECT: Broome Developmental Center
 LOCATION: Johnson City, NY
 PROJECT NO.: CE-20-002

INFILTRATION TEST POINT: IT - 8

Diameter of Casing 4.00 inches

TEST DATA

TEST DATE: 6/24/2020
 START OF TEST TIME: 10:20 AM

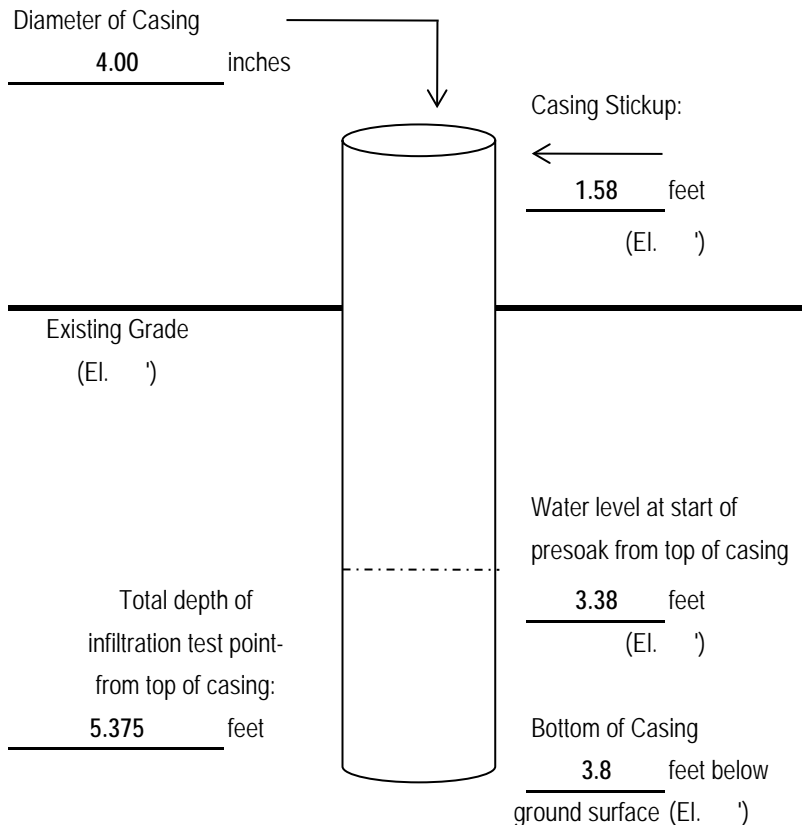
IS THERE PRESOAK WATER IN TEST CASING?

YES

IF YES, WHAT DEPTH:

2.8 FEET FROM TOP OF CASING.
 (El. ')

More water inside the casing than presoak amount, Water was therefore bailed out prior to start of test



RUN NUMBER	START TIME (HOURS)	END TIME (HOURS)	ELAPSED TIME (MIN)	DROP IN WATER LEVEL DURING TEST RUN (FEET)	REFILLED WITH WATER, LEVEL FROM TOP OF CASING (FEET)
START	10:20				3.38
RUN #1	10:20	11:20	60 Min	0.13	3.38
RUN #2	11:20	12:20	60 Min	0.00	3.38
RUN #3	12:20	1:20	60 Min	0.00	3.38
RUN #4	1:20	2:20	60 Min	0.00	3.38

AVERAGE INFILTRATION RATE 0.03 FEET PER HOUR
 AVERAGE INFILTRATION RATE 0.38 INCHES PER HOUR

TESTED BY: T. Myers

ATTACHMENT C

Existing Asphalt Pavement Cores

**Existing Asphalt
Broome Developmental Center
CE-20-012**

B-6



CORE NUMBER	Asphalt Core Visual Description
B-6	<p style="text-align: center;">TOTAL CORE LENGTH = 4.25" to 4.5" CORE DIAMETER = 7.75"</p> <p style="text-align: center;">TOTAL ASPHALT = 4.25" to 4.5" 2 distinguished layers</p> <p>1st Asphalt Top Layer = 1.75" - Aggregate = 0.2" stone</p> <p>1st Asphalt Binder Layer = 2.5" to 2.75 " - Aggregate = 0.52" stone</p> <p>Asphalt at core location in fair conditions, the surface is worn out; layers are intact, no internal cracks.</p>

**Existing Asphalt
Broome Developmental Center
CE-20-012**

B-8



CORE NUMBER	Asphalt Core Visual Description
B-8	<p style="text-align: center;">TOTAL CORE LENGTH = 4.5" CORE DIAMETER = 7.75"</p> <p style="text-align: center;">TOTAL ASPHALT = 4.5" 2 distinguished layers</p> <p>1st Asphalt Top Layer = 1.25 " - Aggregate = 0.2" stone</p> <p>1st Asphalt Binder Layer = 3.25 " - Aggregate = 0.6" stone</p> <p>Asphalt at core location in fair conditions, the surface is worn out, layers are intact, no internal cracks.</p>

**Existing Asphalt
Broome Developmental Center
CE-20-012**

B-10



CORE NUMBER	Asphalt Core Visual Description
B-10	<p style="text-align: center;">TOTAL CORE LENGTH = 2.5" CORE DIAMETER = 7.75"</p> <p style="text-align: center;">TOTAL ASPHALT = 4.5" Drillers were not able to retrieve the entire core sample.</p> <p>Retrieved Asphalt Layer = 2.5"</p> <ul style="list-style-type: none">- Aggregate = 0.5" stone- Apparent binder mix <p>Retrieved asphalt at core location in fair conditions, the surface is worn out, no internal cracks.</p>

**Existing Asphalt
Broome Developmental Center
CE-20-012**

B-12



CORE NUMBER	Asphalt Core Visual Description
B-12	<p style="text-align: center;">TOTAL CORE LENGTH = 4.25" CORE DIAMETER = 7.75"</p> <p style="text-align: center;">TOTAL ASPHALT = 4.25" Multiple Layers, no apparent top at the core surface</p> <p style="text-align: center;">1st Asphalt Binder Layer = 1.5 " - Aggregate = 0.38" stone</p> <p style="text-align: center;">1st Asphalt Top Layer = 1 " - Aggregate = 0.18" stone</p> <p style="text-align: center;">1st Asphalt Top Layer = 1 " - Aggregate = 0.18" stone</p> <p style="text-align: center;">2nd Asphalt Binder Layer = 1 " - Aggregate = 0.56" stone</p> <p>Asphalt at core location in fair conditions, the surface is worn out; layers are intact, no internal cracks.</p>

**Existing Asphalt
Broome Developmental Center
CE-20-012**

B-13



CORE NUMBER	Asphalt Core Visual Description
B-13	<p style="text-align: center;">TOTAL CORE LENGTH = 4.5" CORE DIAMETER = 7.75"</p> <p style="text-align: center;">TOTAL ASPHALT = 4.5" Apparent 3 distinguished layers</p> <p>1st Asphalt Top Layer = 1 " - Aggregate = 0.28" stone</p> <p>1st Asphalt Binder Layer = 2 " - Aggregate = 0.38" stone</p> <p>1st Asphalt Base Layer = 1.5 " - Aggregate = 0.5" stone</p> <p>Asphalt at core location in fair , the surface is worn out, layers are intact, no internal cracks.</p>



ATLANTIC TESTING LABORATORIES

WBE certified company

Buffalo
5167 South Park Avenue
Hamburg, NY 14075
716-649-8110 (T)
atlantictesting.com

January 9, 2024

C&S Engineers, Inc.
499 Col. Eileen Collins Boulevard
Syracuse, New York 13212

Telephone: 315-703-4419
Email: dwethey@cscos.com

Attn: Mr. Dwight H. Wethey, P.E.
Project Manager

Re: Geotechnical Evaluation Report for:
SOIL BORINGS AND INFILTRATION TESTS
BROOME DDSO PARKING LOT RECONSTRUCTION
249 GLENWOOD ROAD
BINGHAMTON, BROOME COUNTY, NEW YORK
ATL Report No. CD10585E-01-07-23

Dear Mr. Wethey:

Enclosed is one (1) electronic copy of the referenced report. ATL appreciates the opportunity to provide geotechnical services for this project.

Please note that upon completion of the subsurface investigation, the borings were backfilled with on-site soils and the surface was patched as appropriate. It is important that the backfilled borings be monitored for settlement or subsidence. This will be the responsibility of C&S Engineers, Inc. and Broome DDSO. ATL assumes no liability for loss or damage resulting from borehole settlement.

The soil samples obtained during this investigation will be retained for a period of six months and subsequently discarded, unless otherwise instructed.

Please contact our office should you have any questions or comments on this information, or if we may be of further service. We look forward to our continued association to obtain a successful completion of this project.

Sincerely,
ATLANTIC TESTING LABORATORIES, Limited

John J. Danzer, PE
Senior Engineer

JJD/TRS/sw

Enclosures

**SUBSURFACE INVESTIGATION
AND
GEOTECHNICAL EVALUATION REPORT**

**SOIL BORINGS AND INFILTRATION TESTS
BROOME DDSO PARKING LOT RECONSTRUCTION
249 GLENWOOD ROAD
BINGHAMTON, BROOME COUNTY, NEW YORK**

C&S ENGINEERS, INC.

**PREPARED FOR: C&S Engineers, Inc
499 Col. Eileen Collins Boulevard
Syracuse, New York 13212**

**PREPARED BY: Atlantic Testing Laboratories, Limited
5167 South Park Avenue
Hamburg, New York 14075**

ATL Report No. CD10585E-01-07-23

January 9, 2024

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**SUBSURFACE INVESTIGATION
AND
GEOTECHNICAL EVALUATION REPORT**

**SOIL BORINGS AND INFILTRATION TESTS
BROOME DDSO PARKING LOT RECONSTRUCTION
249 GLENWOOD ROAD
BINGHAMTON, BROOME COUNTY, NEW YORK**

C&S ENGINEERS, INC.

1.0 INTRODUCTION

At the request of Mr. Dwight H. Wethey, P.E., representing C&S Engineers, Inc. (C&S), and in accordance with our proposal (ATL File No. CD998-247-02-23, dated February 14, 2023), Atlantic Testing Laboratories, Limited (ATL) performed a subsurface investigation and geotechnical evaluation for the referenced project at the Broome Developmental Disabilities Services Office (DDSO) facility located at 249 Glenwood Road in Binghamton, Broome County, New York.

The purpose of the investigation was to ascertain the general pavement structure, and subgrade soil conditions, along with groundwater and subsurface drainage (infiltration) conditions, within two (2) existing parking lot areas, as they relate to the proposed reconstruction and drainage improvements of the subject parking lot areas. The general locations of the two project parking lot areas are shown on **Figure 1** in **Appendix A**.

The subsurface investigation included a total of three (3) pavement core / subgrade test borings and five (5) infiltration tests and associated test borings, which were completed by ATL, between August 30th and September 1st, 2023. In addition, ATL also completed laboratory photographs and descriptions of the recovered pavement cores, along with laboratory testing of recovered subbase and subgrade soil samples. The pavement core / subgrade test borings are designated as borings B-1 through B-3 and the infiltration tests and associated test borings are designated as IT-1 through IT-5. Their approximate locations are shown on **Figure 2** in **Appendix A**.

This report summarizes the subsurface exploration program and findings and presents requested geotechnical information for the parking lot reconstruction and associated drainage improvements.

2.0 SITE AND PROJECT DESCRIPTION

The proposed parking lot reconstruction and drainage improvements are planned in two existing parking lot areas at the Broome DDSO facility, as shown on Figure 1. These include the following:

- An approximate 8,150 square feet (sf) access drive and parking area located at the maintenance building area, north of the DDSO facility (herein referred to as the north parking lot area); and
- An approximate 83,850 sf parking lot area located on the east side of the DDSO facility (herein referred to as the east parking lot area)

Both parking lot areas consist of asphalt pavement surfaces. Concrete perimeter curbs and curbed landscape islands are present in the east parking lot area.

3.0 SUBSURFACE INVESTIGATION & INVESTIGATION METHODOLOGY

3.1 General

The subsurface investigation included a total of three (3) pavement core / subgrade test borings, designated as B-1 through B-3 and five (5) infiltration tests and associated adjacent test borings, designated as IT-1 through IT-5, which were completed by ATL, between August 30th and September 1st, 2023. The locations of the pavement core / subgrade test borings and the infiltration tests and associated test borings are shown on Figure 2.

Test boring B-1 and infiltration test IT-1 were made in the north parking lot area and test borings B-2 and B-3 along with infiltration tests IT-4 and IT-5 were made within the east parking lot area. Infiltration tests IT-2 and IT-3 were made in the grass area off the east edge of the east parking lot area.

The locations of the proposed pavement core / test borings and infiltration tests were initially established and plotted on an aerial photograph site plan map prepared by C&S, which was used by ATL as a basis for preparing Figure 2. C&S also established and marked out the proposed locations of the pavement cores / subgrade test borings and infiltration tests in the field.

ATL coordinated the locating of possible underground utilities in the exploration areas with C&S and Broome DDSO. As part of this effort, and as requested by C&S, ATL also retained GPRS of Rochester, New York to complete a geophysical scan and mark out of underground utilities in the area of test borings B-2 and B-3, and infiltration tests IT-4 and IT-5 within the east parking lot area. GPRS used ground penetrating radar and electromagnetic pipe and cable locating methods to perform these scans. A copy of **GPRS's Report**, including the associated mark out photographs, are presented in **Appendix B**.

The subsurface investigation logs for the **Pavement Core / Subgrade Test Borings** and the **Infiltration Test Borings** are presented in **Appendix C**. The infiltration test data are presented on the **Infiltration Test Summary Reports** presented in **Appendix D**.

The subsurface investigation also included performing measurements, descriptions and photographing of the recovered pavement cores, along with performing moisture content testing and particle size analysis on various recovered subgrade soil samples in ATL's soils laboratory. The **Pavement Core Photographs** are presented in **Appendix E** and the **Laboratory Test Data** are presented in **Appendix F**.

3.2 Pavement Cores and Subgrade Test Borings

Portable coring equipment was utilized by ATL to obtain 6-inch diameter core samples of the pavement structure surface conditions, which included asphalt concrete only at each of the pavement core locations. The underlying subbase thickness, where present (B-2 and B-3), was then measured after the pavement cores were extracted.

The test borings (subgrade soil sampling) were advanced using a Central Mine Equipment (CME) model 45, truck vehicle mounted drill rig, using hollow stem auger and split spoon sampling techniques. The subgrade soil sampling included taking split spoon soil samples, and obtaining corresponding Standard Penetration Tests (SPT's), in the subgrade soils beneath the subbase, to depths ranging between about 4.4 feet (B-2) and 12.0 feet (B-1 and B-3) below the existing pavement surface (bgs), utilizing a 2-inch outside diameter split spoon sampler and automatic drop hammer. The split spoon sampling and SPTs were completed in general accordance with *ASTM D1586 – "Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils"*.

Within test borings B-2, auger refusal was encountered at a depth of 4.4 feet bgs. The driller subsequently moved over a few feet and readvanced a second boring (B-2A) to 2.5 feet bgs where auger refusal was again encountered. Coring of the refusal material was then performed from 2.5 feet bgs to a depth of 7.5 feet bgs and encountered voids with no soil or rock recovery. This boring was then terminated at 7.5 feet bgs.

The collected subgrade soil samples were visually classified in ATL's laboratory by a Geologist using the Burmister Soil Classification System. The split spoon sampler does not recover particles larger than 1 $\frac{3}{8}$ -inch in nominal dimension, therefore, the soil classifications may not be representative of the entire soil matrix. The visual classifications and the standard penetration test results are presented on the Subsurface Investigation Logs, included in Appendix C.

The boreholes and infiltration test holes were backfilled with on-site soils and the asphalt pavement surface, where present, was patched with asphalt cold patch upon completion of the subsurface investigation. It is important that the backfilled borings be monitored for settlement or subsidence. This will be the responsibility of C&S and Broome DDSO. ATL assumes no liability for loss or damage resulting from borehole settlement.

3.3 Infiltration Test Borings and Tests

Five (5) infiltration tests designated as IT-1 through IT-5 were completed adjacent to the corresponding adjacent infiltration test boring locations (IT-1 through IT-5), as described below. The infiltration tests were conducted in general conformance with the infiltration test procedure presented in the *NYSDEC Publication "Stormwater Management Design Manual – January 2015" – Appendix D: Infiltration Testing Requirements*.

The infiltration test borings were advanced to 8.0 feet bgs (IT-1 through IT-3) and 10.0 feet bgs (IT-4 and IT-5). After completion of the infiltration test borings, the driller moved over slightly from the test boring location and augered an infiltration test hole to depths ranging between about 3.2 feet and 5.1 feet bgs, in accordance with the requested general depth range established by C&S. A 4-inch diameter, PVC casing/riser pipe was then placed (seated) in the hole and the annulus space between the pipe and the hole was backfilled. The driller then filled the pipe with about 24-inches of pre-soak water, as noted on the test summaries.

A representative of ATL, subsequently visited the site to perform the infiltration tests, following the presoak period. The infiltration tests were performed on September 1st, 2023. In each case some pre-soak water was found to remain present in the test pipes prior to the start of the infiltration testing, as noted on the test summaries in Appendix D. With the exception of IT-5, the testing was generally started by placing water in the test hole over the remaining pre-soak / water level present, generally back up to a depth of about 2.0 feet \pm above the test hole bottom. In the case of IT-5, the testing was performed from the level of the presoak water remaining (i.e. about 3.1 feet above the test hole bottom). Each infiltration test included four (4) test runs measuring

the water level drop over an approximate 1-hour period. After each run the water level drop was measured and recorded. The casing pipe was then re-filled with water as necessary back to the depth at the start of the initial test run.

The infiltration test data are presented on the Infiltration Test Summary Reports presented in Appendix D and summarized in Section 5.1.

3.4 Laboratory Evaluation

The thickness of the asphalt concrete recovered from the pavement cores B-1 through B-3 were measured, described and photographed in ATL's soils laboratory. In addition, a thickness breakdown and description of the various components (i.e. top course, binder course and base course layers) making up the existing asphalt concrete are also summarized on the core photographs. The Pavement Core Photographs are presented in Appendix E.

Subbase samples, where present (B-2 and B-3), and subgrade soil samples collected at the level of the infiltration test hole bottoms were tested in ATL's laboratory to confirm the soil gradation characteristics and moisture content of the soil stratum tested. The grain size analyses (sieve analyses only) were completed in accordance with *ASTM D-422 – "Particle Size Distribution of Soils Using Sieve Analysis"*. The moisture content of these samples was also determined in accordance with *ASTM D 2216 – "Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass"*;

The Laboratory Test Data is presented in Appendix F.

4.0 SUMMARY OF EXISTING PAVEMENT STRUCTURE, SUBBASE AND SUBGRADE CONDITIONS

4.1 General

The pavement structure encountered at the surface pavement core / test boring locations B-1 through B-3 consisted of asphalt concrete only. An underlying subbase course was encountered within pavement core / test boring locations B-2 and B-3 in the east parking lot area. No pavement subbase was apparent at pavement core / test boring location B-1 in the north parking lot area.

The subgrade soils encountered directly beneath the pavement structure materials consisted generally of silty clayey, gravel and sand type fill and indigenous soils, and were found to be generally of a "firm" relative density. Deeper subgrade soils were found to consist of varying mixtures of sandy gravelly silt and clay, or silty clayey gravel and sand type soils. The deeper subgrade soils were found to be generally of a "firm" to "very compact" relative density or a "stiff" to "hard" consistency.

The thickness of the existing pavement structure components, and the subbase where encountered, along with a general description of the underlying subgrade soils, are summarized in **Table 1** within **Appendix G**. In addition, the number of various asphalt concrete components (i.e. top course, binder course, and base course layers) making up the asphalt concrete are also summarized on this table with the component types and thicknesses summarized in more detail on the Pavement Core Photographs presented in Appendix E.

4.2 Asphalt Concrete Conditions

Asphalt concrete was present at the surface of each of the pavement core / test boring locations B-1 through B-3. The asphalt concrete thickness at these locations was found to range between

about 5.5-inches and 8.9-inches. The asphalt concrete at these locations consisted of between 2 and 4 layers of various asphalt course types (i.e., top, binder and base type material).

The asphalt concrete at core location B-1 in the north parking lot area exhibited poor bonding between layers, as noted on Table 1, and as shown on the core photograph in Appendix E.

4.3 Subbase Conditions

A subbase course layer was noted by the driller to be present at pavement core / test boring locations B-2 and B-3 located within the east parking lot area. The subbase (gravel and sand type material) at these locations was noted to range between about 3-inches and 4-inches in thickness. Pavement subbase was not apparent at pavement core / test boring location B-1 in the north parking lot area.

In all cases, a geotextile separation / stabilization type fabric layer was not apparent beneath the subbase layer, where present.

4.4 Subgrade Soil Conditions

The subgrade soils encountered directly beneath the pavement structures appear to consist of both man-placed fill and indigenous soils made up of predominately silty clayey gravel and sand type soils (GC-GM Group type soils using the Unified Soil Classification System (USCS) ASTM-D-2488). Based on the SPT "N" values obtained, these upper more coarse grained gravel and sand type soils were found to be typically of a "firm" relative density. The moisture content of these upper subgrade soils ranged between 4.4% and 9.3%.

Deeper subgrade soils were found to consist of varying mixtures of sandy gravelly silt and clay, or silty clayey gravel and sand type soils (USCS CL-ML, SC-SM, GC-GM Group type soils). The deeper subgrade soils were found to be generally of a "firm" to "very compact" relative density or a "stiff" to "hard" consistency.

Freestanding water was not observed in the pavement core test borings B-1, B-2 and B-3, or in infiltration test borings IT-1 through IT-5 at the completion of drilling and subgrade soil sampling. It is possible, however, given the clayey nature of the subgrade soils encountered, that groundwater, if present, may not have had sufficient time to accumulate and stabilized in the test borings within the time that had elapsed from the completion of drilling / soil sampling and the time of these observations / measurements.

At test boring B-2A freestanding water was present at the surface, following the completion of coring from 2.5 feet bgs to 7.5 feet bgs. This water level appears to be the result of water added to the test boring to facilitate the coring operation, and not a groundwater condition.

Many of the subgrade soil samples are described as "wet". These conditions suggest that zones of both perched or trapped groundwater, as well as more general groundwater, is present within the subgrade soils at various locations and depths.

Localized perched or trapped groundwater can be present in the more porous subbase and subgrade soils overlying less permeable clayey type soils, particularly following heavy or extended periods of rain and during seasonally wet periods. The subgrade soils encountered are considered to have drainage characteristics which are typically "poor" based on their relatively high silt and clay content. Accordingly, the subgrade soil conditions and the potential for perched

or trapped groundwater may result in variable drainage of the subbase and subgrades, and can trap water within the subbase course, where adequate drainage relief is not present.

5.0 GEOTECHNICAL ENGINEERING EVALUATION AND RECOMMENDATIONS

5.1 Infiltration Test Results

The subgrade soils encountered at the level of the infiltration tests were found to consist of varying mixtures of sandy gravelly silt and clay, or silty clayey gravel and sand type soils (USCS CL-ML, SC-SM, and GC-GM Group type soils). The moisture content of the subgrade soils at the depths of the infiltration tests ranged between 8.2% and 11.0%.

The average infiltration rates obtained at the infiltration test locations and depths are as follows:

Infiltration Test Results Summary			
Infiltration Test No.	Test Depth (feet bgs)	Average Infiltration Rate (Inches / Hour)	Soil Description
IT-1	3.8	0.25	Hard, Silt & Clay, some f-c Sand, little Gravel (CL-ML Group Type Soil)
IT-2	3.2	0.40*	Hard, Clay & Silt, some f-c Sand, some Gravel (SC-SM Group Type Soil)
IT-3	3.2	0.13*	Hard, Clayey Silt, some f-c Sand, some Gravel (SC-SM Group Type Soil)
IT-4	5.1	1.00*	Hard, Silt & Clay, some f-c Gravel, some f-c Sand (GC-GM Group Type Soil)
IT-5	4.8	0.00	Stiff, Silt & Clay, some f-c Gravel, some f-c Sand (SC-SM Group Type Soil)

**The designer should consider the infiltration rate during the final test run, which was 0.00 inches per hour in each of these cases.*

5.2 Subgrade Soil Conditions and Estimated Subgrade Soil Resilient Modulus

The subgrade soils encountered directly beneath the existing pavement structures at pavement core / test boring locations B-1 through B-3 was found to consist of both man-placed fill and indigenous soils made up of predominately silty clayey gravel and sand type soils (GC-GM Group type soils). ATL has estimated the effective Roadbed Soil Resilient Modulus (Mr) of the subgrade soils encountered to be around 4,500 psi in all three cases, as presented on Table 1 in Appendix G. These Mr values correspond with estimated CBR values in the range of about 5 to 7. The estimated Mr values are based on the subgrade soil types encountered and the SPT data obtained and were established considering empirical relationships and published data.

Accordingly, for pavement structure design, we would suggest the use of this Mr value, as appropriate, with the understanding that the subgrade conditions may vary away from the pavement core / test boring locations.

New pavement structure design recommendations were not requested by C&S as part of ATL’s scope of work for this project. In order to provide pavement structure design recommendations, traffic data and input data consisting of Equivalent 18-kip Single Axle Loads (ESAL’s) over the pavement structure design life would be necessary, in addition to consideration of the recommended roadbed soil resilient modulus.

6.0 LIMITATIONS

This report was prepared to present the findings of ATL's subsurface investigation and engineering evaluation, and to outline information to be utilized in the design of the proposed pavement area reconstruction. This information may require additional investigations and evaluations to meet the specific design and economic considerations for this project.

The pavement reconstruction work should be monitored by a Geotechnical Engineer to verify the continuity and suitability of the subgrade soil conditions, identify the presence of deleterious fill and/or unsuitable soils, and to ensure that adequate conditions are present.

The plans and project specifications should be reviewed by ATL, to verify that there has not been a misinterpretation of this report and/or ATL's understanding of the project.

The subsurface investigation logs and this report in its entirety should be provided to the designers and contractors for information and interpretation. The subsurface investigation logs may not be representative of the entire site subsurface condition, but only what was encountered at the individual test locations at the time of the investigation. The subsurface soil and groundwater conditions may be different from those described on the subsurface investigation logs.

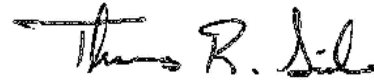
Prepared by:



John J. Danzer, PE
Senior Engineer

JJD/TRS/sw

Reviewed by:



Thomas R. Seider, PE
Senior Engineer

APPENDIX A
FIGURES



NOTES:

THIS FIGURE WAS DEVELOPED USING A GOOGLE EARTH AERIAL PHOTOGRAPH OF THE BROOME DDSO FACILITY.



Project Site Locations

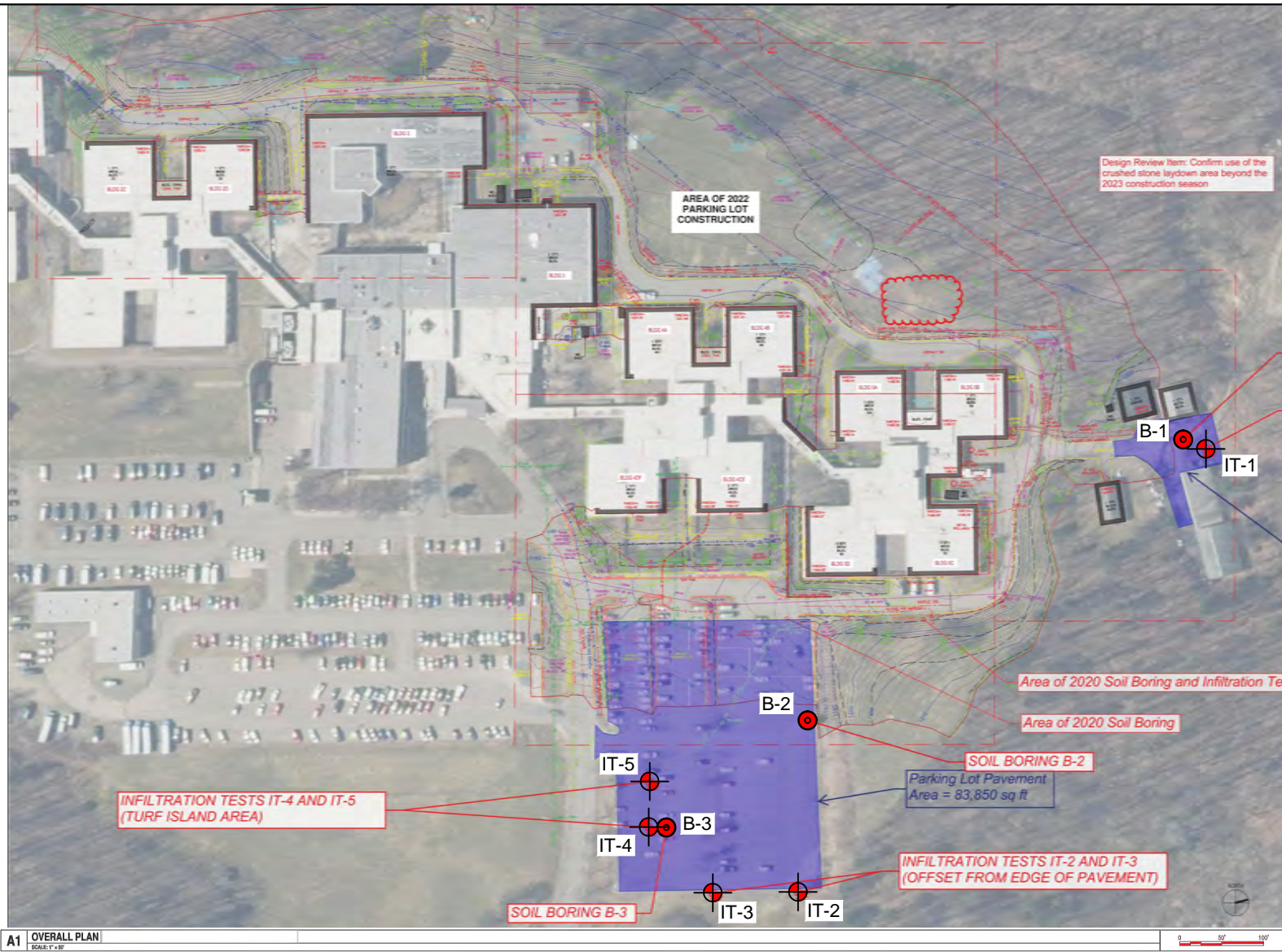
Date: 12/20/2023
 Project No.: CD10585
 Scale: Not to scale
 Drawn by: JDF

Atlantic Testing Laboratories, Limited

Albany, NY Binghamton, NY Canton, NY Elmira, NY
 Plattsburgh, NY Syracuse, NY Rochester, NY Utica, NY
 Watertown, NY Hamburg, NY Poughkeepsie, NY

**SOIL BORINGS AND INFILTRATION TESTS
 BROOME DDSO PARKING LOT RECONSTRUCTION
 249 GLENWOOD ROAD
 BINGHAMTON, BROOME COUNTY, NEW YORK**

FIGURE 1



SOIL BORING B-1

INFILTRATION TEST IT-1

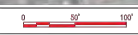
Maintenance Area
Pavement Area =
8,150 sq ft

BROOME DDSO
PARKING LOT REVIEW
OVERALL
PLAN

JANUARY 2023

GENERAL

A1 OVERALL PLAN
SCALE: 1" = 50'



LEGEND:

- B-1 APPROXIMATE LOCATION AND DESIGNATION OF PROPOSED PAVEMENT CORE WITH SUBGRADE SOIL BORING.
- IT-1 APPROXIMATE LOCATION AND DESIGNATION OF INFILTRATION TEST WITH ADJACENT SOIL BORING.

NOTES:

THIS FIGURE WAS DEVELOPED USING A PROPOSED EXPLORATION PLAN PREPARED BY C&S ENGINEERS, INC.



Subsurface Exploration Plan (Soil Borings and Infiltration Test Locations)
Date: 12/20/2023
Project No.: CD10585
Scale: Not to scale
Drawn by: JDF

Atlantic Testing Laboratories, Limited
Albany, NY Binghamton, NY Canton, NY Elmira, NY
Plattsburgh, NY Syracuse, NY Rochester, NY Utica, NY
Watertown, NY Hamburg, NY Poughkeepsie, NY

SOIL BORINGS AND INFILTRATION TESTS
BROOME DDSO PARKING LOT RECONSTRUCTION
249 GLENWOOD ROAD
BINGHAMTON, BROOME COUNTY, NEW YORK

FIGURE 2

APPENDIX B

GPRS UNDERGROUND UTILITY SCAN REPORT



JOB SUMMARY

Service Completed Date: 08/29/2023

Customer: ATLANTIC TESTING LABORATORIES

Phone Number:

Billing Address	City	State	Zip
6431 US HIGHWAY 11	CANTON	NY	13617

Job Details

Jobsite Location	City	State	Zip
4400 VESTAL PARKWAY E	BINGHAMTON	NY	13901

Work Order Number 585292-89271 **Customer Service Phone Num**

Job Num CD10585 **PO Num**

Project Manager: Nick Beadle **Email:** nicholas.beadle@gprsinc.com

Thank you for using GPRS on your project. We appreciate the opportunity to work with you. If you have questions regarding the results of this scanning, please contact the lead GPRS technician on this project.

EQUIPMENT USED

The following equipment was used on this project:

- Underground GPR Antenna:** This GPR Antenna uses frequencies ranging from 250 MHz to 450 MHz and is mounted in a stroller frame that rolls over the surface. Data is displayed on a screen and marked in the field in real-time. The surface needs to be reasonably smooth and unobstructed to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the efficacy of GPR. The total effective scan depth can be as much as 8' or more with this antenna but can vary widely depending on the soil conditions and composition. Some soil types, such as clay, may limit maximum depths to 3' or less. As depth increases, targets must be larger to be detected, and non-metallic targets can be challenging to locate. The depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: [Link](#)
- EM Pipe Locator:** Electromagnetic Pipe and Cable Locator. Detects electromagnetic fields. Used to actively trace conductive pipes and tracer wires, or passively detect power and radio signals traveling along conductive pipes and utilities. For more information, please visit: [Link](#)



JOB SUMMARY

WORK PERFORMED

GPRS performed the following work on this project:

UNDERGROUND UTILITY

- The total area scanned was approximately 2 acres.
- The scope of work included scanning the areas around proposed soil borings. A radius of approximately 10 around each proposed soil boring was scanned unless otherwise noted.
- A total of 10 boring locations were scanned.
- The effective depth of GPR will vary throughout a site depending on a variety of factors such as surface type, surface conditions, soil type, and moisture content. At this site, the maximum effective GPR depth was approximately 4 feet.

RESULTS AND NOTES

Located Utilities:	Electric, Storm Sewer, Unknown	Client performed 811 Location Request:	No
Marking Medium:	Spray Paint	Findings Walkthrough done with client:	No : Client was not on site
Client Provided Drawings:	Yes	Client's Scope of Work:	Scan 10 feet around boring holes



JOB SUMMARY

Image 1



Image 2



Image 3



Image 4





JOB SUMMARY



Common Utility Locating Limitations

There are many limitations to locating utilities, due to a variety of factors, with several more common examples illustrated here.



CONTACT / SIGNATURE INFORMATION

TERMS & CONDITIONS

<http://www.gprsinc.com/termsandconditions.html>

SIGNATURE



CONTACT NAME

ADAM SCHNEIDER

315-386-4578

GPRS

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3D laser scan technology is a cost-effective solution to your facility visualization needs. It can reduce and even eliminate costly errors to speed up your design, engineering, and construction process.

ABOVE AND BELOW GROUND DATA CAPTURE

The combination of laser scanning and ground penetrating radar allows you to visualize your facility effectively and accurately.

Our fully integrated service gives you accurate data to expedite design planning, extract 3D coordinates and measure distances, along with the ability to mark-up and share this with project teams. Receiving critical site information will lower project risks and increase project efficiency.

What can GPRS help you visualize?



- ✓ TRAINING
- ✓ EQUIPMENT
- ✓ METHODOLOGY

The use of proper training, multiple technologies and a field-tested methodology are the key to a successful utility locate. GPRS is a master of all three components through the utilization of the SIM Specification.

SIMSPEC.ORG

SERVICES

 UTILITY LOCATING

 VIDEO PIPE INSPECTION

 LEAK DETECTION

 MAPPING & MODELING

 CONCRETE IMAGING

1.866.914.4718

GPRSINC.COM

APPENDIX C

**PAVEMENT CORE / SUBGRADE TEST BORING LOGS
AND INFILTRATION TEST BORING LOGS**

ATLANTIC TESTING LABORATORIES, Limited

Subsurface Investigation

Client: C&S Engineers, Inc.
 Project: Subsurface Investigation
Broome Development Parking Lot Reconstruction
Binghamton, New York

Report No.: CD10585E-01-12-23
 Boring Location: See Boring Location Plan

Boring No.: B-1 Sheet 1 of 1
 Coordinates _____ Sampler Hammer _____
 Latitude _____ Weight: 140 lbs.
 Longitude _____ Fall: 30 in.
 Hammer Type: Automatic
 Ground Elev.: _____ Boring Advance By: _____
4 1/4" Auger

Start Date: 8/31/2023 Finish Date: 8/31/2023
 Groundwater Observations
 Date Time Depth Casing
8/31/2023 _____ DRY 12.0

ATL-LOG1 LL CD10585 C&S ENGINEERS - BINGHAMTON.GPJ ATL4-08.GDT 12/28/23

DEPTH	METHOD OF ADVANCE	SAMPLE NO.	DEPTH OF SAMPLE		SAMPLE TYPE	BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL	Recovery (Inches)
			From	To					
1	RITGC	1	0.6	2.0	SS	8 10 12	0.6	6.6" ASPHALT PAVEMENT	10
2		2	2.0	4.0		7 10 16 17	2.0	Grey cf GRAVEL; some cmf Sand; some Silt & Clay (wet, high plasticity) w = 9.3%	12
3							4.0	Grey cf GRAVEL; some Silt & Clay; some cmf Sand (wet, medium plasticity)	
4		3	4.0	6.0		15 18 12 14	6.0	Light Brown cf GRAVEL; and cmf Sand; little Silt & Clay (wet, medium plasticity)	7
5							8.0	Grey cf GRAVEL; and Silt & Clay; some cmf Sand (wet, high plasticity)	18
6		4	6.0	8.0		14 20 20 30	8.0	Light Brown cf GRAVEL; some cmf Sand; little Silt & Clay (moist, low plasticity)	22
7					10.0	Light Brown cf GRAVEL; and cmf Sand; little Silt & Clay (wet, medium plasticity)	14		
8	5	8.0	10.0	20 22 21 32	10.0				
9					12.0				
10	6	10.0	12.0	22 25 30 35	12.0				
11									
12									
13							Boring terminated at 12.0 feet.		
14									
15							Notes:		
16							1. Borehole backfilled with on-site soils and patched at the surface with asphalt cold patch.		
17									
18									
19									
20									
21									
22									
23									
24									
25									

SS Split Spoon Sample
 NX Rock Core
 SH Undisturbed Sample (Shelby Tube)
 Estimated Groundwater

Drillers: Matt Matthies
 Inspector: _____

ATLANTIC TESTING LABORATORIES, Limited

Subsurface Investigation

Client: C&S Engineers, Inc.
 Project: Subsurface Investigation
Broome Development Parking Lot Reconstruction
Binghamton, New York

Report No.: CD10585E-01-12-23
 Boring Location: See Boring Location Plan

Boring No.: B-2 Sheet 1 of 1
 Coordinates _____ Sampler Hammer
 Latitude _____ Weight: 140 lbs.
 Longitude _____ Fall: 30 in.
 Hammer Type: Automatic
 Ground Elev.: _____ Boring Advance By:
4 1/4" Auger

Start Date: 8/30/2023 Finish Date: 8/30/2023
 Groundwater Observations
 Date Time Depth Casing
8/30/2023 _____ DRY 4.5'

DEPTH	METHOD OF ADVANCE	SAMPLE NO.	DEPTH OF SAMPLE		SAMPLE TYPE	BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL	Recovery (Inches)
			From	To					
1	RITIG C	1	1.0	2.0	SS	9 9	0.5	5.5" ASPHALT PAVEMENT	
2		2	2.0	4.0		14 12 10 10	2.0	Brown cf GRAVEL; some cmf Sand; little Silt & Clay (wet, high plasticity) w = 6.0%	7
3		3	4.0	4.4		50/5"	4.0	Brown cf GRAVEL; some Silt & Clay; some cmf Sand (wet, low plasticity) COBBLE Fragments	12
4							4.4	Brown cf GRAVEL; and cmf Sand; some Silt & Clay (wet, low plasticity) COBBLE Fragments	5
5									
6									
7								Boring terminated at 4.4 feet due to auger refusal.	
8									
9									
10								Notes: 1. Borehole backfilled with on-site soils and patched at the surface with asphalt cold patch.	
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

ATL-LOG1 LL CD10585 C&S ENGINEERS - BINGHAMTON.GPJ ATL4-08.GDT 12/28/23

SS Split Spoon Sample
 NX Rock Core
 SH Undisturbed Sample (Shelby Tube)
 Estimated Groundwater

Drillers: Matt Matthies
 Inspector: _____

ATLANTIC TESTING LABORATORIES, Limited

Subsurface Investigation

Client: C&S Engineers, Inc.
 Project: Subsurface Investigation
Broome Development Parking Lot Reconstruction
Binghamton, New York

Report No.: CD10585E-01-12-23
 Boring Location: See Boring Location Plan

Boring No.: B-2A Sheet 1 of 1

Start Date: 8/31/2023 Finish Date: 8/31/2023

Coordinates
 Latitude _____
 Longitude _____

Sampler Hammer
 Weight: 140 lbs.
 Fall: 30 in.
 Hammer Type: Automatic

Date	Groundwater Observations		
	Time	Depth	Casing
<u>8/31/2023</u>	_____	<u>SURFACE</u>	<u>2.5'</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Ground Elev.: _____ Boring Advance By: _____
4 1/4" Auger

DEPTH	METHOD OF ADVANCE	SAMPLE NO.	DEPTH OF SAMPLE		SAMPLE TYPE	BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL	Recovery (Inches)
			From	To					
1	RITGC						Augered to 2.5 feet (No samples taken). Auger refusal at 2.5 feet. Cored from 2.5 to 7.5 feet. Voids noted at 4.0 to 5.5 feet and 6.0 to 6.5 feet. No Soil/Rock Recovery. Boring terminated at 7.5 feet. Notes: 1. Boring located 5.0 feet East of Boring B-2. 2. Borehole backfilled with on-site soils.		
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

ATL-LOG1 LL CD10585 C&S ENGINEERS - BINGHAMTON.GPJ ATL4-08.GDT 12/28/23

SS Split Spoon Sample
 NX Rock Core
 SH Undisturbed Sample (Shelby Tube)
 Estimated Groundwater

Drillers: Matt Matthies
 Inspector: _____

ATLANTIC TESTING LABORATORIES, Limited

Subsurface Investigation

Client: C&S Engineers, Inc.
 Project: Subsurface Investigation
Broome Development Parking Lot Reconstruction
Binghamton, New York

Report No.: CD10585E-01-12-23
 Boring Location: See Boring Location Plan

Start Date: 8/30/2023 Finish Date: 8/30/2023

Boring No.: B-3 Sheet 1 of 1

Coordinates _____ Sampler Hammer
 Latitude _____ Weight: 140 lbs.
 Longitude _____ Fall: 30 in.
 Hammer Type: Automatic

Ground Elev.: _____ Boring Advance By: _____
4 1/4" Auger

Groundwater Observations			
Date	Time	Depth	Casing
<u>8/30/2023</u>	_____	<u>DRY</u>	<u>12.0</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

DEPTH	METHOD OF ADVANCE	SAMPLE NO.	DEPTH OF SAMPLE		SAMPLE TYPE	BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL	Recovery (Inches)	
			From	To						
1	R I T T E R						0.8	8.9" ASPHALT PAVEMENT		
2		1	1.0	2.0	SS	8 12	2.0	Brown cf GRAVEL; some cmf Sand; little Silt & Clay (wet, low plasticity) COBBLE Fragments w = 4.4%	5	
3		2	2.0	4.0	SS	7 11 12 10	4.0	Grey cf GRAVEL; some cmf Sand; little Silt (wet, non-plastic) COBBLE Fragments	13	
4		3	4.0	6.0	SS	7 5 6 5	6.0	Grey cf GRAVEL; some cmf Sand; little Silt (moist, non-plastic) COBBLE Fragments	12	
5		4	6.0	8.0	SS	6 6 7 9	8.0	Brown Silty CLAY; little cf Gravel; little cmf Sand (saturated, high plasticity)	9	
6		5	8.0	10.0	SS	8 10 12 12	10.0	Brown CLAY & SILT; and cmf Sand; some cf Gravel (saturated, medium plasticity)	12	
7		6	10.0	12.0	SS	10 15 19 25	12.0	Brown CLAY & SILT; some f Gravel; some cmf Sand (wet, medium plasticity)	7	
8										
9										
10										
11										
12										
13								Boring terminated at 12.0 feet.		
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

ATL-LOG1 LL CD10585 C&S ENGINEERS - BINGHAMTON.GPJ ATL4-08.GDT 12/28/23

SS Split Spoon Sample
 NX Rock Core
 SH Undisturbed Sample (Shelby Tube)
 Estimated Groundwater

Drillers: Matt Matthies
 Inspector: _____

ATLANTIC TESTING LABORATORIES, Limited

Subsurface Investigation

Client: C&S Engineers, Inc.
 Project: Subsurface Investigation
Broome Development Parking Lot Reconstruction
Binghamton, New York

Report No.: CD10585E-01-12-23
 Boring Location: See Boring Location Plan

Start Date: 8/31/2023 Finish Date: 8/31/2023

Boring No.: IT-1 Sheet 1 of 1

Coordinates
 Latitude _____ Longitude _____
 Sampler Hammer Weight: 140 lbs.
 Fall: 30 in.
 Hammer Type: Automatic

Ground Elev.: _____ Boring Advance By: 4 1/4" Auger

Groundwater Observations			
Date	Time	Depth	Casing
<u>8/31/2023</u>	_____	<u>DRY</u>	<u>8.0'</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

DEPTH	METHOD OF ADVANCE	SAMPLE NO.	DEPTH OF SAMPLE		SAMPLE TYPE	BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL	Recovery (Inches)
			From	To					
1	RITGC	1	0.0	2.0	SS	3 6 8 8	0.1	1" STONE	12
2		2.0	4.0	16 12 14 14		2.0	Brown SILT & CLAY; some cmf Sand; little cf Gravel (moist, low plasticity)	13	
3						4.0	Brown SILT & CLAY; some cmf Sand; little cf Gravel (wet, low plasticity)		
4		3	4.0	6.0		18 20 21 25	6.0	Brown SILT & CLAY; some cmf Sand; little f Gravel (wet, medium plasticity) w = 9.9%	15
5		4	6.0	8.0		17 14 14 16	8.0	Brown cmf SAND; and Silt & Clay; little cf Gravel (wet, medium plasticity)	12
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

Boring terminated at 8.0 feet.

Notes:
 1. Borehole backfilled with on-site soils.

ATL-LOG1 LL CD10585 C&S ENGINEERS - BINGHAMTON.GPJ ATL4-08.GDT 12/28/23

SS Split Spoon Sample
 NX Rock Core
 SH Undisturbed Sample (Shelby Tube)
 Estimated Groundwater

Drillers: Matt Matthies
 Inspector: _____

ATLANTIC TESTING LABORATORIES, Limited

Subsurface Investigation

Client: C&S Engineers, Inc.
 Project: Subsurface Investigation
Broome Development Parking Lot Reconstruction
Binghamton, New York

Report No.: CD10585E-01-12-23
 Boring Location: See Boring Location Plan

Boring No.: IT-2 Sheet 1 of 1
 Coordinates _____ Sampler Hammer _____
 Latitude _____ Weight: 140 lbs.
 Longitude _____ Fall: 30 in.
 Hammer Type: Automatic
 Ground Elev.: _____ Boring Advance By: _____
4 1/4" Auger

Start Date: 8/30/2023 Finish Date: 8/30/2023
 Groundwater Observations
 Date Time Depth Casing
8/30/2023 _____ DRY 4.0'

ATL-LOG1 LL CD10585 C&S ENGINEERS - BINGHAMTON.GPJ ATL4-08.GDT 12/28/23

DEPTH	METHOD OF ADVANCE	SAMPLE NO.	DEPTH OF SAMPLE		SAMPLE TYPE	BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER				DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL	Recovery (Inches)	
			From	To									
1	RITGC	1	0.3	2.0	SS	4	5	7	9	0.3	4" TOPSOIL & ORGANIC MATERIAL	12	
2		2.0	4.0	9		14	17	23	2.0	Grey cf GRAVEL; and cmf Sand; some Clay & Silt (wet, medium plasticity)	18		
3										4.0	Grey CLAY & SILT; some cmf Sand; some cf+ Gravel (wet, high plasticity) w = 11.0%		
4		3	4.0	6.0		17	22	21	28	6.0	Grey cf GRAVEL; some cmf Sand; some Silt & Clay (wet, medium plasticity) COBBLE Fragments	14	
5													
6		4	6.0	8.0		16	18	18	18	8.0	Grey cf GRAVEL; and cmf Sand; some Silt & Clay (wet, low plasticity) COBBLE Fragments	19	
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													

Drillers: Matt Matthies
 Inspector: _____

SS Split Spoon Sample
 NX Rock Core
 SH Undisturbed Sample (Shelby Tube)
 Estimated Groundwater

ATLANTIC TESTING LABORATORIES, Limited

Subsurface Investigation

Client: C&S Engineers, Inc.
 Project: Subsurface Investigation
Broome Development Parking Lot Reconstruction
Binghamton, New York

Report No.: CD10585E-01-12-23
 Boring Location: See Boring Location Plan

Boring No.: IT-3 Sheet 1 of 1
 Coordinates _____ Sampler Hammer _____
 Latitude _____ Weight: 140 lbs.
 Longitude _____ Fall: 30 in.
 Hammer Type: Automatic
 Ground Elev.: _____ Boring Advance By: _____
4 1/4" Auger

Start Date: 8/30/2023 Finish Date: 8/30/2023
 Groundwater Observations
 Date Time Depth Casing
8/30/2023 _____ DRY 4.0'

DEPTH	METHOD OF ADVANCE	SAMPLE NO.	DEPTH OF SAMPLE		SAMPLE TYPE	BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL	Recovery (Inches)
			From	To					
1	RITGC	1	0.1	0.5	SS	50/5"	0.1 0.5	1" TOPSOIL & ORGANIC MATERIAL	2
2		2	2.0	3.9	SS	9 23 27 50/5"	3.9	Dark Brown cmf SAND; and cf Gravel; some clayey Silt; little Organic Material (topsoil, root hairs) (wet, slight plasticity)	12
3		3	4.0	6.0	SS	19 34 28 32	6.0	Brown Clayey SILT; some cmf Sand; little f Gravel (wet, slight plasticity) w = 8.2%	14
4		4	6.0	8.0	SS	14 31 33 42	8.0	Brown cf GRAVEL; and cmf Sand; some Silt (wet, non-plastic) COBBLE Fragments	22
5									
6									
7									
8									
9								Boring terminated at 8.0 feet.	
10									
11									
12								Notes: 1. Borehole backfilled with on-site soils.	
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

ATL-LOG1 LL CD10585 C&S ENGINEERS - BINGHAMTON.GPJ ATL4-08.GDT 12/28/23

SS Split Spoon Sample
 NX Rock Core
 SH Undisturbed Sample (Shelby Tube)
 Estimated Groundwater

Drillers: Matt Matthies
 Inspector: _____

ATLANTIC TESTING LABORATORIES, Limited

Subsurface Investigation

Client: C&S Engineers, Inc.
 Project: Subsurface Investigation
Broome Development Parking Lot Reconstruction
Binghamton, New York

Report No.: CD10585E-01-12-23
 Boring Location: See Boring Location Plan

Boring No.: IT-5 Sheet 1 of 1

Start Date: 8/31/2023 Finish Date: 8/31/2023

Coordinates _____ Sampler Hammer
 Latitude _____ Weight: 140 lbs.
 Longitude _____ Fall: 30 in.
 Hammer Type: Automatic

Groundwater Observations			
Date	Time	Depth	Casing
<u>8/31/2023</u>	_____	<u>DRY</u>	<u>10.0'</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Ground Elev.: _____ Boring Advance By: _____
4 1/4" Auger

DEPTH	METHOD OF ADVANCE	SAMPLE NO.	DEPTH OF SAMPLE		SAMPLE TYPE	BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER				DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL	Recovery (Inches)
			From	To								
1	RITGC	1	0.3	2.0	SS	2	3	4	5	0.3	4" TOPSOIL & ORGANIC MATERIAL Brown cf GRAVEL; some cmf Sand; little clayey Silt; trace Organic Material (root hairs) (wet, slight plasticity)	7
2		2.0	4.0	3		5	5	5	2.0	3		
3										4.0		
4		3	4.0	6.0		5	6	8	8	6.0		12
5		4	6.0	8.0		12	12	14	18	8.0		9
6												
7												
8												
9		5	8.0	10.0	SS	15	16	19	27	10.0	Brown cmf SAND; and Clay & Silt; some cf Gravel (wet, medium plasticity) COBBLE Fragments	13
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

ATL-LOG1 LL CD10585 C&S ENGINEERS - BINGHAMTON.GPJ ATL4-08.GDT 12/28/23

SS Split Spoon Sample
 NX Rock Core
 SH Undisturbed Sample (Shelby Tube)
 Estimated Groundwater

Drillers: Matt Matthies
 Inspector: _____

APPENDIX D
INFILTRATION TEST SUMMARY REPORTS



INFILTRATION TEST DATA SUMMARY

PROJECT: Broome DDSO Parking Lot Reconstruction
 LOCATION: Binghamton, New York
 PROJECT NO.: CD10585

INFILTRATION

TEST POINT: IT-1
 PRESOAK DATE: 8/31/2023
 PRESOAK TIME: _____

TEST DATA

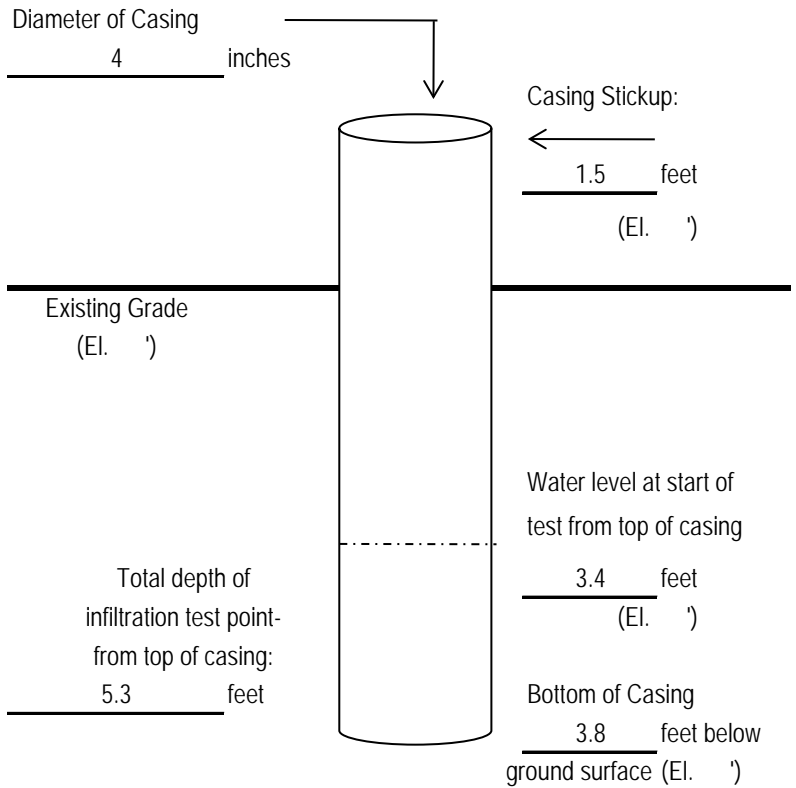
TEST DATE: 9/1/2023
 START OF TEST TIME: 11:30

IS THERE PRESOAK WATER IN TEST CASING?

YES NO

IF YES, WHAT DEPTH:

5.1 FEET FROM TOP OF CASING.
 (El. ')



RUN NUMBER	START TIME (HOURS)	END TIME (HOURS)	ELAPSED TIME (MIN)	DROP IN WATER LEVEL DURING TEST RUN (INCHES)	REFILLED WITH WATER, LEVEL FROM TOP OF CASING (FEET)
START					3.4
RUN #1	11:30	12:30	60	0.0	3.4
RUN #2	12:30	1:30	60	0.5	3.4
RUN #3	1:30	2:30	60	0.0	3.4
RUN #4	2:30	3:30	60	0.5	

AVERAGE INFILTRATION RATE 0.021 FEET PER HOUR
 AVERAGE INFILTRATION RATE 0.25 INCHES PER HOUR

TESTED BY: T. Dovin



INFILTRATION TEST DATA SUMMARY

PROJECT: Broome Development Parking Lot Reconstruction
 LOCATION: Binghamton, New York
 PROJECT NO.: CD10585

INFILTRATION

TEST POINT: IT-2
 PRESOAK DATE: 8/31/2023
 PRESOAK TIME: _____

TEST DATA

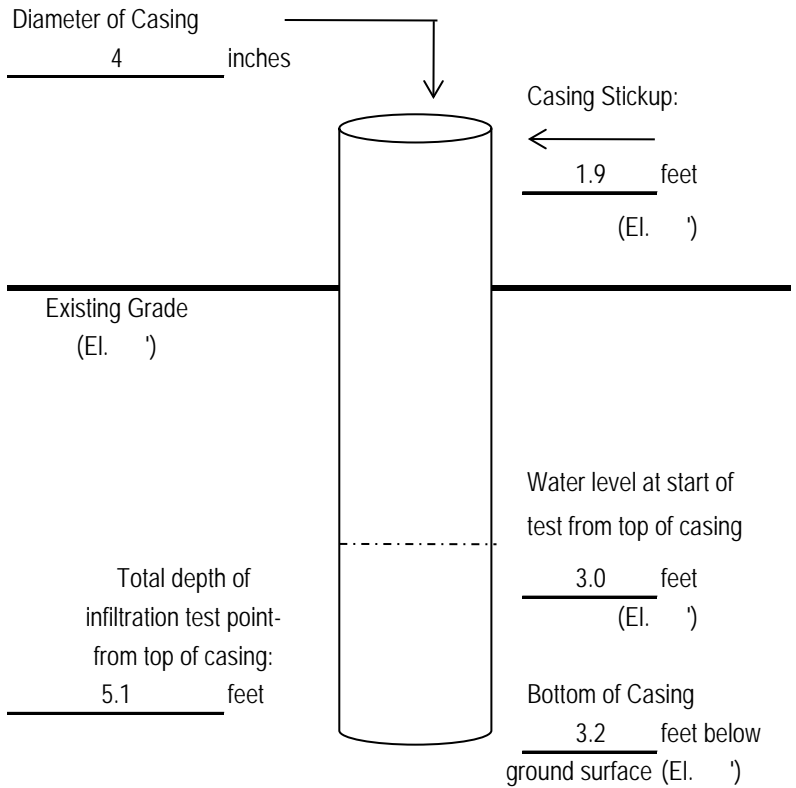
TEST DATE: 9/1/2023
 START OF TEST TIME: 11:42

IS THERE PRESOAK WATER IN TEST CASING?

YES NO

IF YES, WHAT DEPTH:

4.6 FEET FROM TOP OF CASING.
 (El. ')



RUN NUMBER	START TIME (HOURS)	END TIME (HOURS)	ELAPSED TIME (MIN)	DROP IN WATER LEVEL DURING TEST RUN (INCHES)	REFILLED WITH WATER, LEVEL FROM TOP OF CASING (FEET)
START					3.0
RUN #1	11:42	12:42	60	1.0	3.0
RUN #2	12:42	1:42	60	0.0	3.0
RUN #3	1:42	2:42	60	0.5	3.0
RUN #4	2:42	3:42	60	0.0	

AVERAGE INFILTRATION RATE 0.03125 FEET PER HOUR
 AVERAGE INFILTRATION RATE 0.375 INCHES PER HOUR

TESTED BY: T. Dovin



INFILTRATION TEST DATA SUMMARY

PROJECT: Broome DDSO Parking Lot Reconstruction
 LOCATION: Binghamton, New York
 PROJECT NO.: CD10585

INFILTRATION

TEST POINT: IT-3
 PRESOAK DATE: 8/31/2023
 PRESOAK TIME: _____

TEST DATA

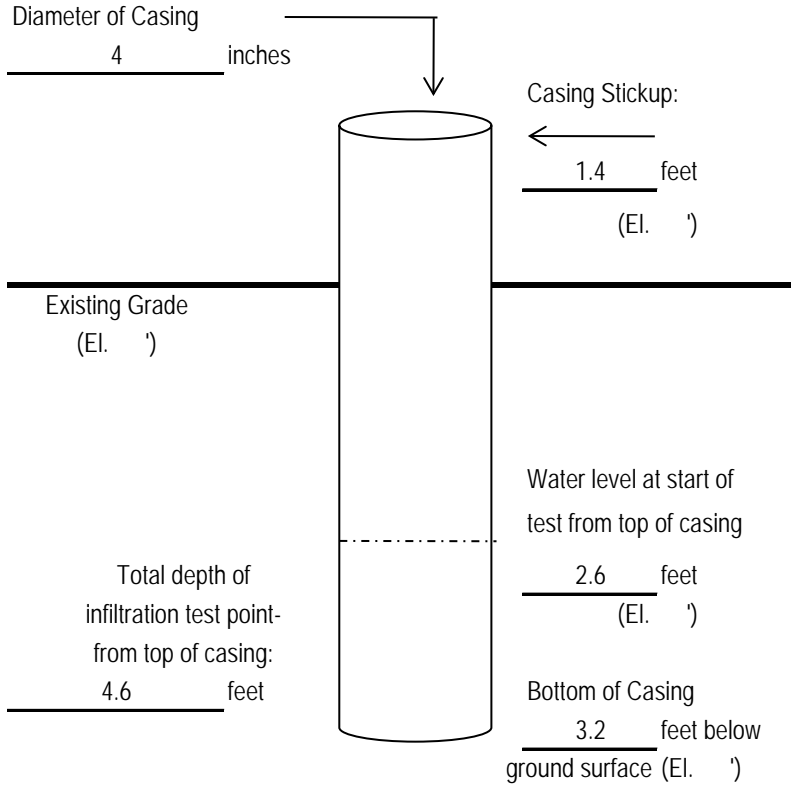
TEST DATE: 9/1/2023
 START OF TEST TIME: 11:42

IS THERE PRESOAK WATER IN TEST CASING?

YES NO

IF YES, WHAT DEPTH:

4.4 FEET FROM TOP OF CASING.
 (El. ')



RUN NUMBER	START TIME (HOURS)	END TIME (HOURS)	ELAPSED TIME (MIN)	DROP IN WATER LEVEL DURING TEST RUN (INCHES)	REFILLED WITH WATER, LEVEL FROM TOP OF CASING (FEET)
START					2.6
RUN #1	11:47	12:47	60	0.0	2.6
RUN #2	12:47	1:47	60	0.0	2.6
RUN #3	1:47	2:47	60	0.5	2.6
RUN #4	2:47	3:47	60	0.0	

AVERAGE INFILTRATION RATE 0.0104 FEET PER HOUR
 AVERAGE INFILTRATION RATE 0.125 INCHES PER HOUR

TESTED BY: T. Dovin



INFILTRATION TEST DATA SUMMARY

PROJECT: Broome DDSO Parking Lot Reconstruction
 LOCATION: Binghamton, New York
 PROJECT NO.: CD10585

INFILTRATION

TEST POINT: IT-4
 PRESOAK DATE: 8/31/2023
 PRESOAK TIME: _____

TEST DATA

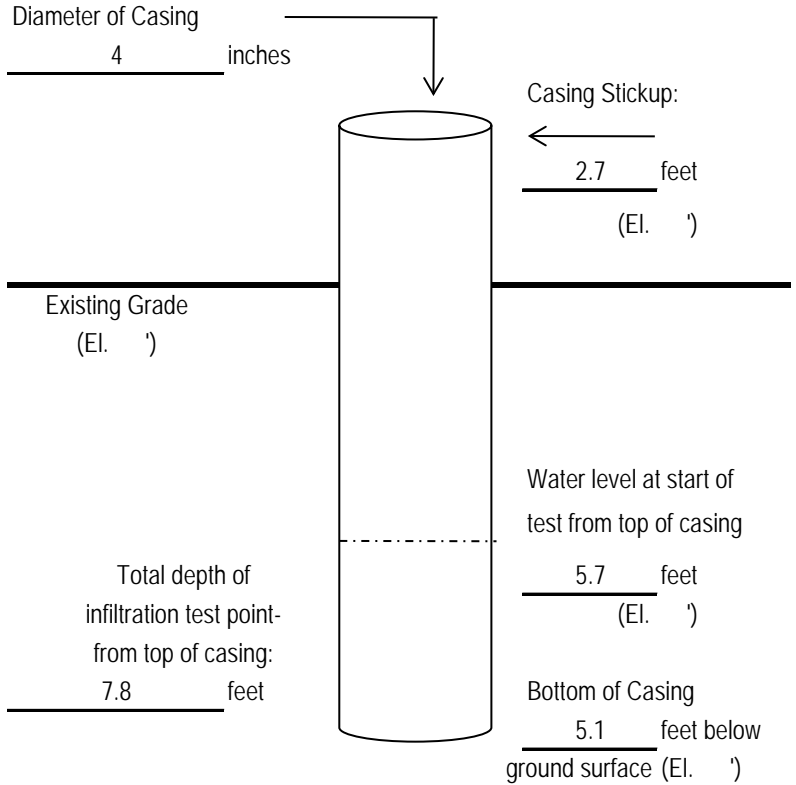
TEST DATE: 9/1/2023
 START OF TEST TIME: 11:42

IS THERE PRESOAK WATER IN TEST CASING?

YES NO

IF YES, WHAT DEPTH:

6.3 FEET FROM TOP OF CASING.
 (El. ')



RUN NUMBER	START TIME (HOURS)	END TIME (HOURS)	ELAPSED TIME (MIN)	DROP IN WATER LEVEL DURING TEST RUN (INCHES)	REFILLED WITH WATER, LEVEL FROM TOP OF CASING (FEET)
START					5.7
RUN #1	11:47	12:47	60	2.0	5.7
RUN #2	12:47	1:47	60	1.0	5.7
RUN #3	1:47	2:47	60	1.0	5.7
RUN #4	2:47	3:47	60	0.0	

AVERAGE INFILTRATION RATE 0.083 FEET PER HOUR
 AVERAGE INFILTRATION RATE 1.00 INCHES PER HOUR

TESTED BY: T. Dovin



INFILTRATION TEST DATA SUMMARY

PROJECT: Broome DDSO Parking Lot Reconstruction
 LOCATION: Binghamton, New York
 PROJECT NO.: CD10585

INFILTRATION

TEST POINT: IT-5
 PRESOAK DATE: 8/31/2023
 PRESOAK TIME: _____

TEST DATA

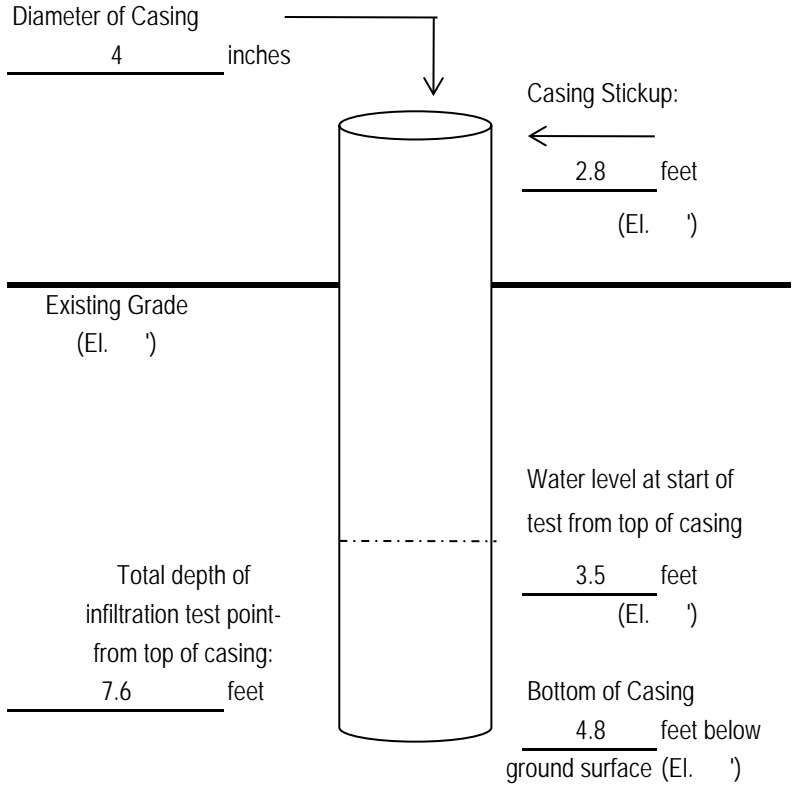
TEST DATE: 9/1/2023
 START OF TEST TIME: _____

IS THERE PRESOAK WATER IN TEST CASING?

YES NO

IF YES, WHAT DEPTH:

3.5 FEET FROM TOP OF CASING.
 (El. ')



RUN NUMBER	START TIME (HOURS)	END TIME (HOURS)	ELAPSED TIME (MIN)	DROP IN WATER LEVEL DURING TEST RUN (INCHES)	REFILLED WITH WATER, LEVEL FROM TOP OF CASING (FEET)
START					3.5
RUN #1			60	0.0	3.5
RUN #2			60	0.0	3.5
RUN #3			60	0.0	3.5
RUN #4			60	0.0	

AVERAGE INFILTRATION RATE 0.000 FEET PER HOUR
 AVERAGE INFILTRATION RATE 0.00 INCHES PER HOUR

TESTED BY: T. Dovin

APPENDIX E
PAVEMENT CORE PHOTOGRAPHS

ATLANTIC TESTING LABORATORIES
CD10585
BROOME DDSO PARKING LOT RECONSTRUCTION
BINGHAMTON, NY
CORE SUMMARY



Core B-1

CORE NUMBER	DESCRIPTION
B-1	<p style="text-align: center;">TOTAL CORE LENGTH = 6.55"</p> <p style="text-align: center;">TOTAL ASPHALT = 6.55"</p> <ul style="list-style-type: none"> - 1st Top Layer = 1.60" - 2.15" (slanted) <ul style="list-style-type: none"> - Aggregate = 0.35" gravel - separation between layers - 1st Binder Layer = 3.90" – 4.40" (slanted) <ul style="list-style-type: none"> - Aggregate = 0.80" gravel <p style="text-align: center;">SUBBASE INVESTIGATION</p> <ul style="list-style-type: none"> - As per driller's log no subbase was encountered.

ATLANTIC TESTING LABORATORIES
 CD10585
 BROOME DDSO PARKING LOT RECONSTRUCTION
 BINGHAMTON, NY
 CORE SUMMARY



Core B-2

CORE NUMBER	DESCRIPTION
B-2	<p style="text-align: center;">TOTAL CORE LENGTH = 5.45"</p> <p style="text-align: center;">TOTAL ASPHALT = 5.45"</p> <ul style="list-style-type: none"> - 1st Top Layer = 1.95" <ul style="list-style-type: none"> - Aggregate = 0.40" gravel - 2nd Top Layer = 1.55" <ul style="list-style-type: none"> - Aggregate = 0.40" gravel - 1st Binder Layer = 1.95" <ul style="list-style-type: none"> - Aggregate = 0.95" gravel <p style="text-align: center;">SUBBASE INVESTIGATION</p> <ul style="list-style-type: none"> - Approximate subbase thickness = 3" - Description: Gravel and Sand

ATLANTIC TESTING LABORATORIES
 CD10585
 BROOME DDSO PARKING LOT RECONSTRUCTION
 BINGHAMTON, NY
 CORE SUMMARY



Core B-3

CORE NUMBER	DESCRIPTION
B-3	<p style="text-align: center;">TOTAL CORE LENGTH = 8.85"</p> <p style="text-align: center;">TOTAL ASPHALT = 8.85"</p> <ul style="list-style-type: none"> - 1st Top Layer = 1.95" <ul style="list-style-type: none"> - Aggregate = 0.45" gravel - 2nd Top Layer = 1.25" <ul style="list-style-type: none"> - Aggregate = 0.35" gravel - 1st Binder Layer = 1.75" <ul style="list-style-type: none"> - Aggregate = 0.85" gravel - 1st Base Layer = 3.90" <ul style="list-style-type: none"> - Aggregate = 1.10" gravel <p style="text-align: center;">SUBBASE INVESTIGATION</p> <ul style="list-style-type: none"> - Approximate subbase thickness = 4" - Description: Gravel and Sand

APPENDIX F
LABORATORY TEST DATA



ATLANTIC TESTING LABORATORIES

WBE certified company

LABORATORY DETERMINATION OF MOISTURE CONTENT OF SOILS ASTM D 2216

PROJECT INFORMATION

Client: C&S Engineers, Inc.

ATL Report No.:

CD10585SL-01-11-23

Project: Broome Developmental Parking Lot Reconstruction

Report Date:

November 28, 2023

Date Received:

November 16, 2023

TEST DATA

Boring No.	Sample No.	Depth (ft)	Moisture Content (%)
B-1	S-1 ¹	0.5-2.0'	9.3
B-2	S-1 ¹	0.5-2.0'	6.0
B-3	S-1 ¹	0.5-2.0'	4.4
IT-1	S-3 ¹	4.0-6.0'	9.9
IT-2	S-2 ¹	2.0-4.0'	11.0
IT3	S-2 ¹	2.0-3.9'	8.2
IT4	S-3 ¹	4.0-6.0'	8.6
IT-5	S-3 ¹	4.0-6.0'	8.7

REMARKS

1. Sample mass was less than the minimum mass outlined in the referenced test method.

Reviewed By:

Date:

12/12/23



ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

ASTM D 422

Project: Broome Developmental Parking Lot Reconstruction

Report No.: CD10585SL-01-11-23

Client: C&S Engineers, Inc

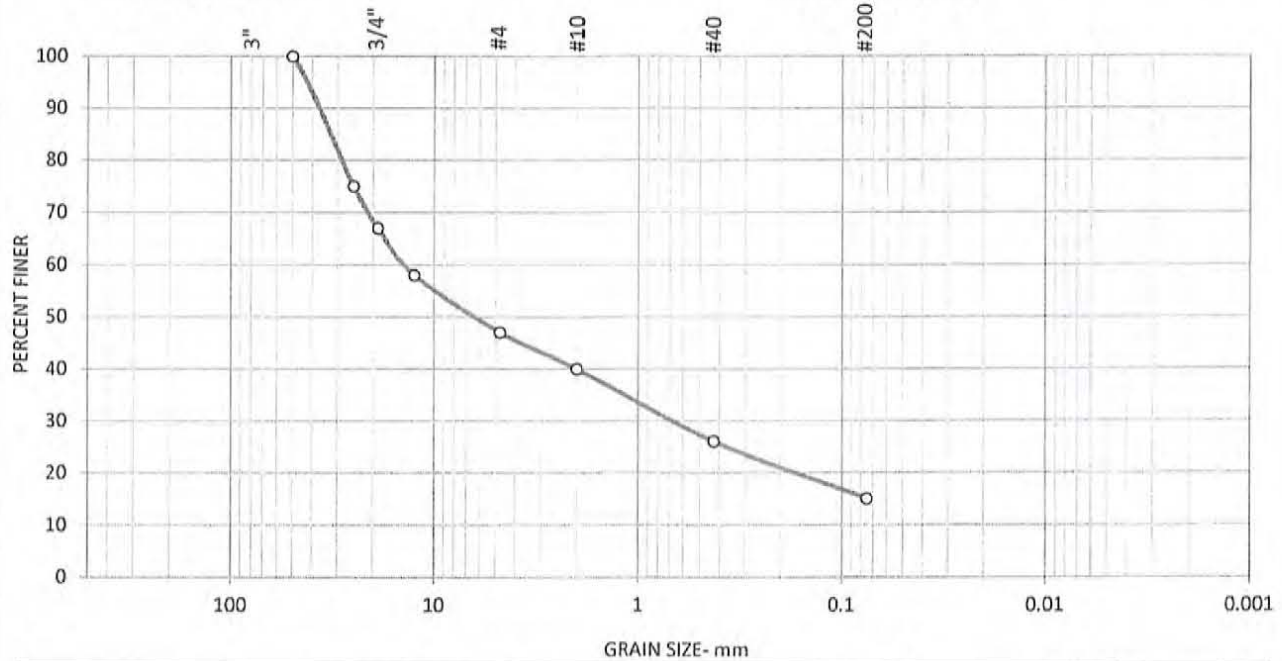
Test Date: 11/28/2023

Sample No: B-2, S-1

Source of Sample: Boring Sample

Location: In-Place

Elev./Depth: 0.5-2.0'



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	33	20	7	14	11	15	

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"	100		
1"	75		
3/4"	67		
1/2"	58		
#4	47		
#10	40		
#40	26		
#200	15		

Soil Description
Brown of GRAVEL; some cmf Sand; little Silt & Clay

Moisture Content = 6.0%

Atterberg Limits
PL= LL= PI=

Coefficients
D₆₀= 13.831 D₃₀= 0.672 D₁₀=
C_u= NA C_c= NA

Classification
USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORATORIES, LIMITED

Reviewed by: 

Date: 12/2/23



ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

ASTM D 422

Project: Broome Developmental Parking Lot Reconstruction

Report No.: CD10585SL-01-11-23

Client: C&S Engineers, Inc

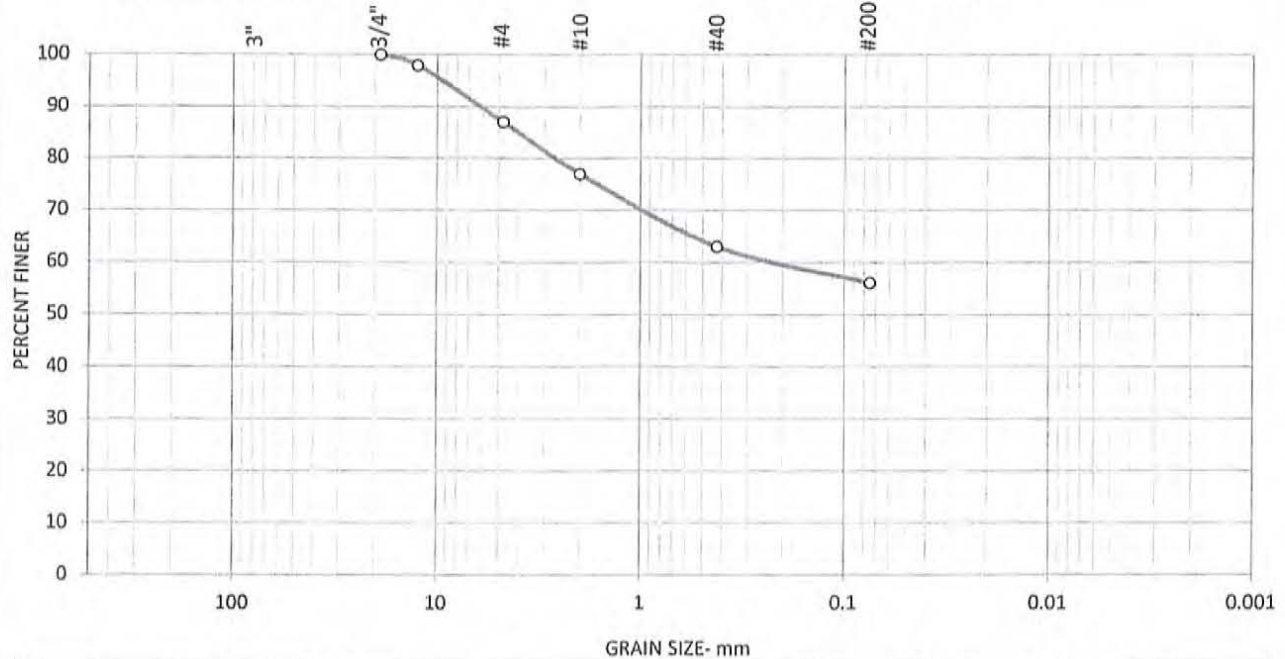
Test Date: 11/28/2023

Sample No: IT-1, S-3

Source of Sample: Boring Sample

Location: In-Place

Elev./Depth: 4.0-6.0'



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		13	10	14	7		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"	100		
1/2"	98		
#4	87		
#10	77		
#40	63		
#200	56		

Soil Description
Brown SILT & CLAY; some cmf Sand; little f Gravel

Moisture Content = 9.9%

Atterburg Limits
PL= LL= PI=

Coefficients
D₆₀= 0.12 D₃₀= D₁₀=
C_u= NA C_c= NA

Classification
USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORATORIES, LIMITED

Reviewed by: 

Date: 12/12/23



ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

ASTM D 422

Project: Broome Developmental Parking Lot Reconstruction

Report No.: CD10585SL-01-11-23

Client: C&S Engineers, Inc

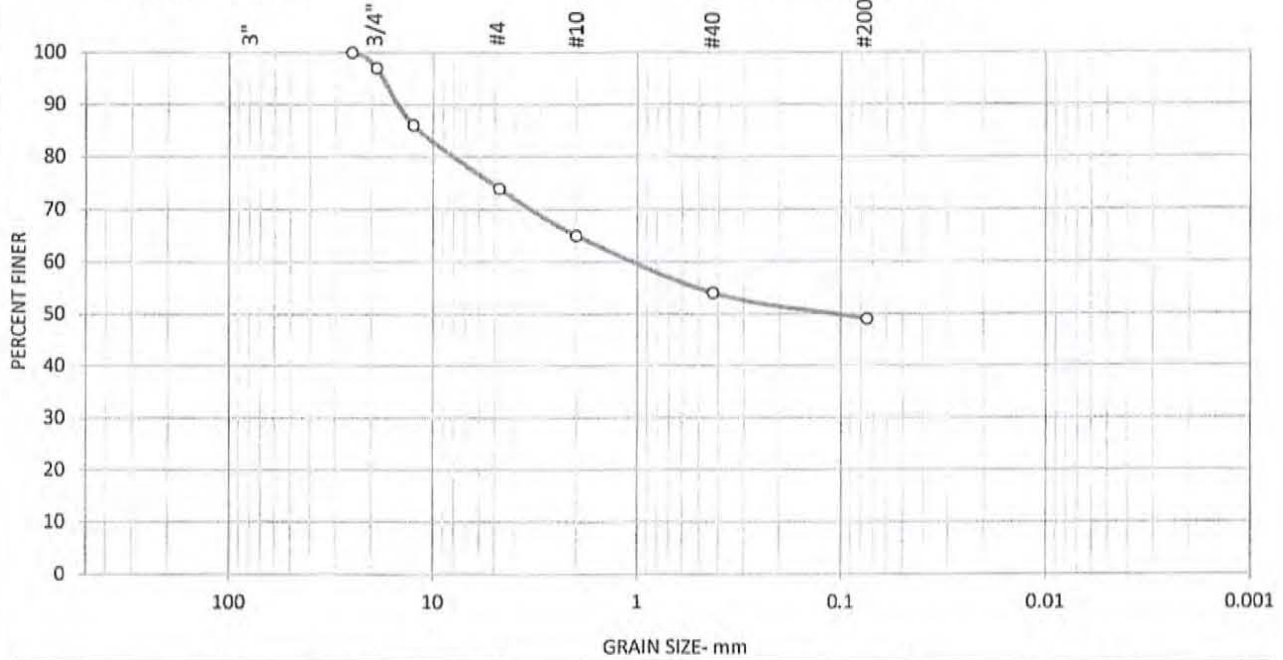
Test Date: 11/28/2023

Sample No: IT-5, S-3

Source of Sample: Boring Sample

Location: In-Place

Elev./Depth: 4.0-6.0'



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	3	23	9	11	5	49	

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"	100		
3/4"	97		
1/2"	86		
#4	74		
#10	65		
#40	54		
#200	49		

Soil Description
Light Brown SILT & CLAY; some cf+ Gravel; some cmf Sand

Moisture Content = 8.7%

Atterberg Limits
PL= LL= PI=

Coefficients
D₆₀= 0.738 D₃₀= D₁₀=
C_u= NA C_c= NA

Classification
USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORATORIES, LIMITED

Reviewed by: 

Date: 12/12/23

APPENDIX G

TABLE 1

TABLE 1
SUMMARY OF EXISTING PAVEMENT STRUCTURE AND SUBGRADE CONDITIONS

PROPOSED PARKING LOT RECONSTRUCTION
BROOME DDSO - NORTH AND EAST PARKING LOTS
249 GLENWOOD ROAD
BINGHAMTON, BROOME COUNTY, NEW YORK

Core / Boring Number and General Location	Pavement Structure Materials	Existing Asphalt Concrete Pavement Conditions			Subbase Course Conditions			Subgrade Soil Conditions				
		Total AC Pavement Thickness (inches)	Number of Asphalt Course Layers	Remarks Regarding Asphalt Courses	Approximate Subbase Layer Thickness (inches)	Subbase Material	Geotextile Beneath Subbase	Subgrade Material Type	Subgrade* SPT "N" value	Relative Density or Consistency of Subgrade	Estimated Soil Resilient Modulus (psi)	Subgrade Drainage Characteristics
B-1 (North Parking Lot)	Asphalt Concrete Only	6.6	2	Core Contains 1 TC Layer & 1 BC Layer, Poor Bonding at TC / BC Interface	NA	---	---	Silty Clayey Sandy Gravel (GC-GM)	20	Firm	4500	Poor
B-2 (East Parking Lot)	Asphalt Concrete and Subbase	5.5	3	Core Contains 2 TC Layers & 1 BC Layer	3	Gravel and Sand	NP	Silty Clayey Sandy Gravel (GC-GM)	18	Firm	4500	Poor
B-3 (East Parking Lot)	Asphalt Concrete and Subbase	8.9	4	Core Contains 2 TC Layers, 1 BC Layer & 1 BA Layer	4	Gravel and Sand	NP	Silty Clayey Sandy Gravel and Cobbles (GC-GM)	20	Firm	4500	Poor

TC - Top Course; BC - Binder Course; BA - Base Course
 NA - Not Apparent
 NP - Not Present

GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 011200 - CONTRACT SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and Individual Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes a summary of each Contract for the Project, including responsibilities for coordination and temporary facilities and controls.

- B. Work of the Project consists of performing, installing, furnishing and supplying all materials, equipment, labor and incidentals necessary or convenient for the construction of DASNY Project No. 3543609999 titled Road – Parking Lot Expansion Project, and carrying out all the duties and obligations imposed upon the Contractor by the Contract Documents. The main features of the work shall include, but not be limited to the following:

- Roadway pavement reconstruction, including demolition and replacement of an existing parking lot.
- Site removals such as concrete sidewalk, site lighting, storm utilities, etc.
- Concrete sidewalks.
- Site grading.
- Installation of new waterline and hydrants.
- Sanitary sewer relocation.
- Underground storm utilities and site drainage improvements.
- New pavement markings and traffic signs.
- Site lighting and spare conduits for future Electric Vehicle (EV) charging stations.

Specific requirements for the work of each Contract are also indicated in individual Specification Sections and on Drawings for each Contract.

- C. Related Sections:

1. Section 013100 - Project Management and Coordination.
2. Section 013200 - Construction Progress Documentation.
3. Section 015000 - Temporary Facilities and Controls.

- D. Work to be performed by the Owner:

1. Furnish and installation of interior building conduits, including interior and exterior wall penetrations for conduit. Refer to Drawing E-301 of the contract documents.
2. Furnish and install sealants and fire stopping materials at wall penetration locations.

GENERAL REQUIREMENTS for CONSTRUCTION

3. Furnish and install underground conduits from the building to the handhole that is adjacent to the building. Refer to Drawings E-101, E-103, and E-104 of the contract documents.

1.3 CONTRACTOR'S PROJECT MANAGER

- A. Contractor and each Sub-contractor shall identify a project manager who shall be responsible for coordination between and among each and all contractors and subcontractors for the Project and the Owner.

1.4 COORDINATION ACTIVITIES

- A. Coordination activities of Contractor's project manager include, but are not limited to, the following:
 1. Provide overall coordination of the Work.
 2. Coordinate use of access shared with other contractors to workspaces and workspaces shared with other contractors.
 3. Coordinate product selections for compatibility with either product selected under this Contract and under other contracts for the Project. Identify to Owner and Design Professional incompatibilities between products selected under this Contract and products selected under other contracts for the Project.
 4. Provide overall coordination of temporary facilities and controls.
 5. Coordinate, schedule, and approve interruptions of permanent and temporary utilities, including those necessary to make connections for temporary services.
 6. Coordinate construction and operations of the Work with work performed by each other separate Contract for the Project and the Owner's construction forces.
 7. Prepare Coordinated Composite Drawings, in collaboration with each other contractor for the Project, to coordinate the work of the contracts for the Project.
 8. Coordinate sequencing and scheduling of the Work. Include the following:
 - a. Initial Coordination Meeting: At earliest possible date, the Owner will arrange and conduct a meeting with all contractors for the Project for sequencing and coordinating the work of the Project.
 9. Provide quality assurance and quality control services specified in Section 014000 – Quality and Code Requirements.
 10. Coordinate sequence of activities to accommodate tests and inspections, and coordinate schedule of tests and inspections.
 11. Provide information necessary to adjust, move, or relocate existing utility structures affected by construction.
 12. Provide progress cleaning of all Contract work areas and coordinate progress cleaning of areas or pieces of equipment where more than one contractor has worked.
 13. Coordinate cutting and patching.
 14. Coordinate protection of the Work.
 15. Coordinate completion of punch list items.
 16. Coordinate preparation of As-built drawings and specifications.
 17. Print and submit all required project turnover documents.
 18. Coordinate preparation of operation and maintenance manuals.

GENERAL REQUIREMENTS for CONSTRUCTION

B. Responsibilities of project manager for construction contract includes coordination for temporary facilities and controls, include, but are not limited to, the following:

1. Provide common-use field office for use by all personnel engaged in construction activities. |

1.5 GENERAL REQUIREMENTS OF CONTRACTS

A. Extent of Contract: Requirements indicated on drawings and in specification sections determine which Contract includes a specific element of the Work of the Contract.

1. The work described in this section for each contract shall be complete systems and assemblies, including products, components, accessories, and installation required by the respective contract documents.
2. Blocking, backing panels, sleeves, and metal fabrication supports shall be the work of the General Contract.
3. Painting for the work of each contract shall be the work of the General Contract.
4. Cutting and Patching: Each contract shall perform its own cutting and patching. |
5. Firestopping for the work of the General Contract shall be provided by the Owner. |

B. Redundant with Section 13200 Substitutions: Each contractor's project manager shall cooperate with all other contractor's project managers involved to coordinate approved substitutions with remainder of the work of the Project.

C. Temporary Facilities and Controls: In addition to specific responsibilities for temporary facilities and controls indicated in this Section and in Section 015000 - Temporary Facilities and Controls, Contractor is responsible for the following:

1. | Installation, operation, maintenance, and removal of each temporary facility necessary for its own normal construction activity, and costs and use charges associated with each facility, except as otherwise provided for in this Section 011200. |
2. Plug-in electric power cords and extension cords, supplementary plug-in task lighting, and special lighting necessary exclusively for its own activities.
3. | Its own field office complete with necessary furniture, utilities, and telephone service. |
4. Its own storage and fabrication sheds.
5. Temporary enclosures for its own construction activities.
6. Staging and scaffolding for its own construction activities.
7. General hoisting facilities for its own construction activities.
8. Waste disposal facilities, including collection and legal disposal of its own hazardous, dangerous, unsanitary, or other harmful waste materials.
9. Progress cleaning of work areas affected by its operations on a daily basis.
10. Secure lockup of its own tools, materials, and equipment.
11. Construction aids and miscellaneous services and facilities necessary exclusively for its own construction activities.

1.6 |SITWORK CONTRACT

A. Work in the Sitework Contract includes, but is not limited to, the following:

1. Selective demolition, including tree removal, and exterior site lighting.

GENERAL REQUIREMENTS for CONSTRUCTION

2. Removal and storage of site signage and site exercise equipment.
3. Removal of existing asphalt pavements and concrete walkways
4. Construction of new roadway and parking lot pavements, including related earthwork.
5. Installation of new pavement markings, and roadway and parking signage.
6. Installation of new roadway and parking lot lighting (pole mounted).
7. Installation of new underground utilities, including, water, storm sewer, sanitary sewer, and electrical site lighting.

B. Temporary facilities and controls in the General Construction Contract include, but are not limited to, the following:

1. Temporary facilities and controls that are not otherwise specifically assigned to other contracts.
2. Temporary soil and erosion control.
3. Dewatering as needed to maintain positive drainage from the site.
4. Work Zone Protection and related temporary signs.
5. Barricades, warning signs, and lights.
6. Site enclosure fence.
7. Environmental protection.

1.7 ELECTRICAL WORK TO BE PERFORMED BY OWNER

A. Electrical work by the Owner is focused at the buildings and included the following:

1. Furnish and installation of interior building conduits, including interior and exterior wall penetrations for conduit. Refer to Drawing E-301 of the contract documents.
2. Furnish and install sealants and fire stopping materials at wall penetration locations.
3. Furnish and install underground conduits from the building to the handhole that is adjacent to the building. Refer to Drawings E-101, E-103, and E-104 of the contract documents

PART 2 - EXECUTION (Not Used)

END OF SECTION 011200

GENERAL REQUIREMENTS for CONSTRUCTION

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GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and Individual Specification Sections, Schedule of Values, Contractor Pencil Copy and Application for Payment, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections:
 - 1. General Conditions, Article 8 - Payment, for requirements governing provisions for payment.
 - 2. General Conditions, Article 20 – Opportunity Programs, for requirements governing minority participation.
 - 3. Section 017700 – Contract Closeout Requirements, for administrative contract closeout requirements.

1.3 DEFINITIONS

- A. Schedule of Values: A form in the Contract Documents, which establishes minimum level of payment detail to formulate an initial Application for Payment.
- B. Contractor's Pencil Copy: A form provided by the Owner, which estimates a billing request from the Contractor. When approved by the Owner, formulates the Application for Payment.
- C. Application for Payment: A form provided by the Owner, which provides certification by the Contractor for payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with the Owner.
- B. The Contractor shall allocate portions of the Contract Sum to labor, material and major equipment costs to various portions of the Work as indicated on the form.
 - 1. Submit the Schedule of Values to the Owner, for approval at earliest possible date after award of the Contract.
 - 2. The Owner shall not approve any billing request until the Schedule of Values is approved.

GENERAL REQUIREMENTS for CONSTRUCTION

- C. Format and Content: Use model form provided in Contract Documents as a guide to establish line items for the Schedule of Values.
1. Arrange the Schedule of Values with separate columns to indicate the following for each item listed:
 - a. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 - 1) Labor.
 - 2) Materials.
 - 3) Major Equipment.
 2. Provide a breakdown of Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of five percent of Contract Sum.
 - a. Include separate line items under Contractor and principal subcontracts for LEED documentation, if applicable and other project closeout requirements in an amount totaling five percent of the Contract Sum and subcontract amount.
 3. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 4. Allowances: If applicable, provide a separate line item in the schedule of values for each allowance.
 5. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item, except Lump Sum and Quantity of Work Allowances.
 6. Schedule of Values Updating: The Owner may require the Contractor to revise its Schedule of Values. Further, the Owner reserves the right to accept only those cost distributions which, in the Owner's opinion, are reasonable, equitably balanced and correspond to estimated quantities in Contract Documents.

1.5 MONTHLY APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as approved by the Owner and paid for by the Owner.
1. Initial Application for Payment, the Owner shall not approve any billing request until the Schedule of Values and Construction Schedule is approved.
 2. Payment for allowance items and stored materials involve additional requirements.
 3. Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: Billing request may be submitted to the Owner once each month.
1. Submit Contractor's Pencil Copy billing request seven days prior to due date for review by the Owner.

GENERAL REQUIREMENTS for CONSTRUCTION

- C. Payment Forms: All forms and documents required for payment shall be provided by the Owner. Template forms and documents may also be available on the Dormitory Authority's web site www.dasny.org.
- D. Preliminary Procedure: The Contractor may request from the Owner a Contractor's Pencil Copy form. Where indicated on the form, the Contractor shall enter a billing request, either dollar amount or percentage complete for each item number requesting payment.
1. If applicable, the Contractor shall obtain from the Owner, an Allowance Notice to Proceed for Allowance items and an Agreement for Materials Stored Off-Site prior to billing.
 2. Submit Contractor's Pencil Copy billing request to the Owner for approval.
 3. The Contractor shall provide updated documentation to the Owner in accordance with General Conditions, Article 20 – Opportunity Programs.
- E. Procedure: Upon the Owner's approval of the Contractor's Pencil Copy billing request, payment documents will be provided to the Contractor. The Contractor shall complete each document and submit two copies of all documents with original signature & notary where indicated on forms, the following:
1. Application for Payment.
 2. Compliance Report.
 3. Contractor and Subcontractor Certifications Form
 4. Contractor's Certified Payroll Form.
 5. Allowance Allocation Form, if applicable
- F. Payroll Forms: The Contractor and all Sub-contractors to the Contractor shall submit original copies of the Contractor and Subcontractor Certifications Form and Contractor's Certified Payroll Form.
- G. Transmittal: Sign and notarize where indicated on each document, submit two original copies to Owner.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about payment.
- H. Stored Materials: The Owner will provide an Agreement for Materials Stored Off-Site and specific forms that the Contractor must complete and submit to the Owner, including but not limited to;
1. Include in the Contractor's Pencil Copy billing request amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed.
 2. Differentiate between items stored on-site and items stored off-site.
 3. Provide certificate of insurance, evidence of transfer of title to the Owner, and consent of surety to payment, for stored materials.
 4. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 5. Provide summary documentation for stored materials indicating the following:
 - a. Materials previously stored and included in previous Applications for Payment.

GENERAL REQUIREMENTS for CONSTRUCTION

- b. Work completed for this Application utilizing previously stored materials.
 - c. Additional materials stored with this Application.
 - d. Total materials remaining stored, including materials with this Application.
- I. Payment: Timely payment by the Owner to the Contractor is governed by Section 2880 of the Public Authorities Law.
- J. Liens: Upon receipt of a lien, the Owner shall deduct a sum of one and one-half (1 ½) times the amount stated to be due in the notice of lien from the application for payment. Upon official receipt of discharge of lien, the Owner shall provide payment as stated above.

1.6 APPLICATION FOR PAYMENT AT SUBSTANTIAL COMPLETION

- A. Preliminary Procedure: After issuance of the executed Notice of Substantial Completion, submit a Contractor's Pencil Copy billing request showing 100 percent completion for portion of the Work claimed as complete at Substantial Completion.
- 1. Submit Contractor's Pencil Copy billing request to the Owner for approval.
 - 2. The Contractor shall provide final documentation to the Owner in accordance with General Conditions, Article 20 – Opportunity Programs.
- B. Reduction of Retainage: The Contractor may request a reduction of retainage upon Substantial Completion of the Work or when a phase of Work is accepted by the Owner.
- 1. The Contractor submits to the Owner a written request to have retainage reduced and provides a cost estimate and schedule to complete all remaining Work items indicated on the executed Notice of Substantial Completion.
 - 2. The Owner shall deduct from the sum two times the value of remaining items of Work to be completed or corrected.
 - 3. The Owner will provide the Contractor with General Release and Consent of Surety forms based on the amount of reduction. The Contractor shall complete each document and submit three copies of each document with original signature & notary where indicated on forms.
 - 4. The Owner shall hold payment until receipt of completed General Release and Consent of Surety forms.
- C. Procedures: Upon the Owner approval of Contractor's Pencil Copy billing request, payment documents will be provided to the Contractor. The Contractor shall complete each document and submit two copies of all documents with original signature & notary where indicated on forms, the following:
- 1. Application for Payment.
 - 2. Compliance Report.
 - 3. Contractor and Subcontractor Certifications Form
 - 4. Contractor's Certified Payroll Form.
- D. Payroll Forms: The Contractor and all Sub-contractors to the Contractor shall submit original copies of the Contractor and Subcontractor Certifications Form and Contractor's Certified Payroll Form.

GENERAL REQUIREMENTS for CONSTRUCTION

- E. Transmittal: Sign and notarize where indicated on each document, submit two original copies to Owner.
- F. Payment: Timely payment by the Owner to the Contractor is governed by Section 2880 of the Public Authorities Law.
- G. Liens: Upon receipt of a lien, the Owner shall deduct a sum of one and one-half (1 ½) times the amount stated to be due in the notice of lien from the application for payment. Upon official receipt of discharge of lien, the Owner shall provide payment as stated above.

1.7 FINAL APPLICATION FOR PAYMENT (same as contract closeout documents)

- A. Contract Compliance: The Contractor shall comply with the Requirements of General Conditions, Section 10.08 – Limitations on Actions.
- B. Preliminary Procedure: All Work and Extra Work of the Contract and all requirements of Section 017700 – Contract Closeout Requirements must be complete and approved prior to commencement of final Application for Payment.
 - 1. The Contractor shall request and submit to the Owner a final Contractor's Pencil Copy that will formulate the final Application for Payment.
 - 2. The Contractor shall provide outstanding documentation to the Owner in accordance with General Conditions, Article 20 – Opportunity Programs.
- C. Procedures: Upon the Owner approval of Contractor's Pencil Copy billing request, final Application for Payment and Contract closeout documents will be provided to the Contractor. The Contractor shall complete each document and submit two copies of all documents with original signature & notary, where indicated on the forms, the following:
 - 1. Final Application for Payment including remaining Retainage.
 - 2. Final Compliance Report.
 - 3. Contractor and Subcontractor Certifications Form
 - 4. Contractor's Certified Payroll Form.
 - 5. Release Form -- Final Payment to Contractor.
 - 6. Consent of Surety -- Final Payment to Contractor, with power of attorney.
- D. Payroll Forms: The Contractor and all Sub-contractors to the Contractor shall submit original copies of the Contractor and Subcontractor Certifications Form and Contractor's Certified Payroll Form.
- E. Transmittal: Sign and notarize where indicated on each document, submit two original copies to the Owner.
- F. Final Payment: Timely payment by the Owner to the Contractor is governed by Section 2880 of the Public Authorities Law.
- G. Liens: Upon receipt of a lien, the Owner shall deduct a sum of one and one-half (1 ½) times the amount stated to be due in the notice of lien from the final application for payment. Upon official receipt of discharge of lien, the Owner shall provide final payment as stated above.

GENERAL REQUIREMENTS for CONSTRUCTION

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900



SCHEDULE OF VALUES

Lines to Add: 1

Project No: 3543609999
 Project: Road - Parking Lot Expansion Project (CR 40 Phase II Sitework)
 Contractor: _____

Date: _____
 Contract No: _____
 CR No: 40
 Trade: Sitework

Contract Value: _____

\$ - Total Scheduled Value Below

THE SHADED CELLS CANNOT BE UPDATED

CSI	DESCRIPTION	LABOR / MATERIAL	UM	QTY	UNIT COST	ALLOWANCE / CONTINGENCY?	HAZARDOUS?	SCHEDULED VALUE	Notes/Grouping	Budget Category
000000	Bonds	Material	LS	1				\$ -	ALL	05
000000	Insurance	Material	LS	1				\$ -	ALL	05
000000	Mobilization	Labor	LS	1				\$ -	ALL	05
000000	Mobilization	Material	LS	1				\$ -	ALL	05
000000	Demobilization	Labor	LS	1				\$ -	ALL	05
000000	Demobilization	Material	LS	1				\$ -	ALL	05
010000	Supervision	Labor	MO					\$ -	ALL	05
010000	Supervision	Material	MO					\$ -	ALL	05
010000	Scheduling	Labor	LS	1				\$ -	ALL	05
010000	Scheduling	Material	LS	1				\$ -	ALL	05
010000	Project Management and Coordination	Labor	LS	1				\$ -	ALL	05
010000	Project Management and Coordination	Material	LS	1				\$ -	ALL	05
010000	Temporary Facilities and Controls	Labor	LS	1				\$ -	ALL	05
010000	Temporary Facilities and Controls	Material	LS	1				\$ -	ALL	05
010000	Cutting and Patching	Labor	LS	1				\$ -	ALL	05
010000	Cutting and Patching	Material	LS	1				\$ -	ALL	05
010000	Operation and Maintenance Manuals	Labor	LS	1				\$ -	ALL	05
010000	Operation and Maintenance Manuals	Material	LS	1				\$ -	ALL	05
010000	Submittals	Labor	LS	1				\$ -	ALL	05
010000	Submittals	Material	LS	1				\$ -	ALL	05
010000	As Built Documents	Labor	LS	1				\$ -	ALL	05
010000	As Built Documents	Material	LS	1				\$ -	ALL	05
010000	Project Closeout	Labor	LS	1				\$ -	ALL	05
010000	Project Closeout	Material	LS	1				\$ -	ALL	05
010000	Debris Removal	Labor	LS	1				\$ -	ALL	05
010000	Debris Removal	Material	LS	1				\$ -	ALL	05
028700	Removal and Disposal of Universal Waste	Labor	LS	1				\$ -	ALL	05
028700	Removal and Disposal of Universal Waste	Material	LS	1				\$ -	ALL	05
260502	Electrical Demolition	Labor	LS	1				\$ -	ALL	05
260502	Electrical Demolition	Material	LS	1				\$ -	ALL	05
260519	Low Voltage Electrical Power Conductors and Cables	Labor	LS	1				\$ -	ALL	05
260519	Low Voltage Electrical Power Conductors and Cables	Material	LS	1				\$ -	ALL	05

CSI	DESCRIPTION	LABOR / MATERIAL	UM	QTY	UNIT COST	ALLOWANCE / CONTINGENCY?	HAZARDOUS?	SCHEDULED VALUE	Notes/Grouping	Budget Category
260526	Grounding and Bonding for Electrical Systems	Labor	LS	1				\$ -	ALL	05
260526	Grounding and Bonding for Electrical Systems	Material	LS	1				\$ -	ALL	05
260533	Raceways and Boxes for Electrical Systems	Labor	LS	1				\$ -	ALL	05
260533	Raceways and Boxes for Electrical Systems	Material	LS	1				\$ -	ALL	05
260543	Underground Ducts and Raceways for Electrical Systems	Labor	LS	1				\$ -	ALL	05
260543	Underground Ducts and Raceways for Electrical Systems	Material	LS	1				\$ -	ALL	05
260553	Identification for Electrical Systems	Labor	LS	1				\$ -	ALL	05
260553	Identification for Electrical Systems	Material	LS	1				\$ -	ALL	05
265619	LED Exterior Lighting	Labor	EA					\$ -	ALL	05
265619	LED Exterior Lighting	Material	EA					\$ -	ALL	05
311000	Site Clearing	Labor	SY					\$ -	ALL	05
311000	Site Clearing	Material	SY					\$ -	ALL	05
312000	Earth Moving	Labor	LS	1				\$ -	ALL	05
312000	Earth Moving	Material	LS	1				\$ -	ALL	05
312319	DeWatering	Labor	LS	1				\$ -	ALL	05
312319	DeWatering	Material	LS	1				\$ -	ALL	05
312500	Soil Erosion and Sediment Control	Labor	LS	1				\$ -	ALL	05
312500	Soil Erosion and Sediment Control	Material	LS	1				\$ -	ALL	05
315000	Excavation Support and Protection	Labor	LS	1				\$ -	ALL	05
315000	Excavation Support and Protection	Material	LS	1				\$ -	ALL	05
320116	Cold Pavement Milling	Labor	SY					\$ -	ALL	05
320116	Cold Pavement Milling	Material	SY					\$ -	ALL	05
321200	Flexible Paving	Labor	SY					\$ -	ALL	05
321200	Flexible Paving	Material	SY					\$ -	ALL	05
321273	Pavement Joint Sealants	Labor	LS					\$ -	ALL	05
321273	Pavement Joint Sealants	Material	LS					\$ -	ALL	05
321313	Cement Concrete Pavement	Labor	SF					\$ -	ALL	05
321313	Cement Concrete Pavement	Material	SF					\$ -	ALL	05
321640	Stone Curbs	Labor	LF					\$ -	ALL	05
321640	Stone Curbs	Material	LF					\$ -	ALL	05
321723	Pavement Markings	Labor	LS	1				\$ -	ALL	05
321723	Pavement Markings	Material	LS	1				\$ -	ALL	05
329113	Soil Preparation	Labor	LS	1				\$ -	ALL	05
329113	Soil Preparation	Material	LS	1				\$ -	ALL	05
329200	Turf and Grasses	Labor	SY					\$ -	ALL	05
329200	Turf and Grasses	Material	SY					\$ -	ALL	05
329300	Plants	Labor	LS	1				\$ -	ALL	05
329300	Plants	Material	LS	1				\$ -	ALL	05
330132	Sewer Bypass Pumping	Labor	LS	1				\$ -	ALL	05
330132	Sewer Bypass Pumping	Material	LS	1				\$ -	ALL	05
331116	Water Utility Piping	Labor	LF					\$ -	ALL	05
331116	Water Utility Piping	Material	LF					\$ -	ALL	05

CSI	DESCRIPTION	LABOR / MATERIAL	UM	QTY	UNIT COST	ALLOWANCE / CONTIGENCY?	HAZARDOUS?	SCHEDULED VALUE	Notes/Grouping	Budget Category
331300	Clean and Disinfect (Water Utilities)	Labor	LS	1				\$ -	ALL	05
331300	Clean and Disinfect (Water Utilities)	Material	LS	1				\$ -	ALL	05
333313	Sanitary Utility Sewer Piping	Labor	LF					\$ -	ALL	05
333313	Sanitary Utility Sewer Piping	Material	LF					\$ -	ALL	05
334100	Storm Drainage Piping	Labor	LF					\$ -	ALL	05
334100	Storm Drainage Piping	Material	LF					\$ -	ALL	05
334100	Underdrain Piping	Labor	LF					\$ -	ALL	05
334100	Underdrain Piping	Material	LF					\$ -	ALL	05
334413	Precast Concrete Manholes and Catch Basins	Labor	EA					\$ -	ALL	05
334413	Precast Concrete Manholes and Catch Basins	Material	EA					\$ -	ALL	05
334438	Adjust Elevations of Manholes	Labor	EA					\$ -	ALL	05
334438	Adjust Elevations of Manholes	Material	EA					\$ -	ALL	05
340133	Maintenance and Protection of Traffic	Labor	LS	1				\$ -	ALL	05
340133	Maintenance and Protection of Traffic	Material	LS	1				\$ -	ALL	05
344113	Traffic Signs	Labor	EA					\$ -	ALL	05
344113	Traffic Signs	Material	EA					\$ -	ALL	05

GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and individual Specification Sections and Contract Manager, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on the Project including, but not limited to, the following:
 - 1. General project coordination procedures.
 - 2. Administrative and supervisory personnel.
 - 3. Coordination drawings.
 - 4. Requests for Information (RFIs).
 - 5. Contract Manager software site.
 - 6. Project meetings.
- B. Each contractor shall participate in coordination requirements. Refer to Section 011200 – Contract Summary of Work for certain areas of responsibility that are assigned to a specific contractor.
- C. Related Sections:
 - 1. Section 011200 - Contract Summary of Work, for a description of the division of work among separate contracts and responsibility for coordination activities not in this Section.
 - 2. Section 013200 - Project Scheduling and Progress Documentation, for preparing and submitting Contractor's construction schedule.
 - 3. Section 017700 – Contract Closeout Requirements, for coordinating closeout of the Contract.
 - 4. Section 019113 - General Commissioning Requirements, for coordinating the Work with Owner's commissioning authority.

1.3 DEFINITIONS

- A. RFI: Request from the Owner, Design Professional, or Contractor seeking information from each other during construction.

1.4 COORDINATION

- A. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts

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and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Coordination of the Owner's P6 Project Management CPM schedule.
2. Coordination of the commissioning process and activities.
3. Preparation of the schedule of values.
4. Entering dates each required submission item listed on the Contractor's Submission Schedule will be submitted, coordinated with the CPM Schedule.
5. Installation and removal of temporary facilities and controls.
6. Delivery and processing of submittals.
7. Progress meetings.
8. Preinstallation conferences.
9. Project closeout activities.
10. Startup and adjustment of systems.

- B. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1.5 COORDINATED COMPOSITE DRAWINGS

- A. Coordinated Composite Drawings, General: Prepare coordinated composite drawings in accordance with requirements in individual Sections, where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.

1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordinated composite drawings on standard printed data. Include the following information, as applicable:
 - a. Use applicable Drawings as a basis for preparation of coordinated composite drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
 - b. Coordinate the addition of trade-specific information to the coordinated composite drawings by multiple contractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
 - c. [Indicate functional and spatial relationships of components of civil, and electrical systems.]
 - d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
 - e. Indicate required installation sequences.
 - f. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to the Design Professional indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

- B. [Coordinated Composite Drawing Organization: Organize drawings as follows:

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1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire protection, fire alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
2. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
3. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
4. Electrical Work: Show the following:
 - a. Runs of vertical and horizontal conduit 1-1/4 inch diameter and larger.
 - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire alarm locations.
 - c. Panel board, switch board, switchgear, transformer, busway, generator, and motor control center locations.
 - d. Location of pull boxes and junction boxes dimensioned from column center lines.
5. Review: The Design Professional will review coordinated composite drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are the Contractor's responsibility. If the Design Professional determines that the coordinated composite drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, the Design Professional will so inform the Contractor, who shall make changes as directed and resubmit. |

C. Coordination Digital Data Files: Prepare coordination digital data files in accordance with the following requirements:

1. File Preparation Format: The Contractor shall coordinate with the Design Professional and use the same digital data software program, version, and operating system as the original Drawings.

1.6 KEY PERSONNEL

- A. Key Personnel Names: Within 15 days after receipt of the Notice to Proceed, submit a list of key personnel assignments with resume and job qualifications, including project manager, project scheduler, commissioning agent, superintendent and other personnel in attendance at the Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers, and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to the Project.

1.7 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, the Contractor shall prepare and submit an RFI in the form specified.

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1. Coordinate and submit RFIs in a prompt manner so as to avoid delays in the Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Design Professional.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's solution(s) impacts the date of Substantial Completion or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: The Owner's Contract Manager-generated form with substantially the same content as indicated above.
- D. Design Professional's Action: The Design Professional will review each RFI, determine action required, and respond. Allow a reasonable amount of working days for the Design Professional's response for each RFI. RFIs received by the Design Professional after 1:00 p.m. will be considered as received the following working day.
1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the date for Substantial Completion or the Contract Sum.
 - e. Requests for interpretation of the Design Professional's actions on submittals.
 - f. Incomplete RFIs or inaccurately prepared RFIs.
 2. The Design Professional's action may include a request for additional information, in which case the Design Professional's time for response will date from time of receipt of additional information.
 3. The Design Professional's action on RFIs that may result in a change to the date of Substantial Completion or the Contract Sum may be eligible for the Contractor to submit

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a Claim in accordance with procedures in General Conditions, Article 10 – Claims and Disputes.

- a. If the Contractor believes the RFI response warrants change in the date of Substantial Completion or the Contract Sum, notify the Owner in writing within fifteen (15) days of receipt of the RFI response.
- E. On receipt of the Design Professional’s action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify the Owner and Design Professional within five days if the Contractor disagrees with response.
- F. RFI Log: Coordinate and cooperate with the Owner to prepare, update and maintain the use of the Contract Manager RFI log. The RFI log will include not less than the following:
1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Design Professional.
 4. RFI number including RFIs that were dropped and not submitted.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Design Professional’s response was received.
 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
 9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

1.8 CONTRACT MANAGER SOFTWARE SITE

- A. Coordinate and cooperate with the Owner for managing project communication and documentation until Contract Closeout. The Contract Manager software site may include, but is not limited to, the following functions:
1. Project directory.
 2. Project correspondence.
 3. Meeting minutes.
 4. Contract modifications forms and logs.
 5. RFI forms and logs.
 6. Task and issue management.
 7. Submittals forms and logs.
 8. Payment application forms.
 9. Online document collaboration.
 10. Reminder and tracking functions.
 11. Archiving functions.

1.9 PROJECT MEETINGS

- A. General: The Owner and/or Design Professional will schedule and conduct meetings at the Project site, unless otherwise indicated.

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1. Attendees: The Owner and/or Design Professional will inform participants and others involved, and individuals whose presence is required, of date and time of each meeting.
 2. Agenda: The Owner and/or Design Professional will prepare the meeting agenda through the use of the Owner's Contract Manager software and distribute the agenda to all invited attendees.
 3. Minutes: The Owner and/or Design Professional will record significant discussions and agreements achieved in Contract Manager and distribute the meeting minutes to everyone concerned.
- B. Construction Kick-off Meeting: The Owner will schedule and conduct a construction kick-off meeting before starting construction, at a time convenient to the Owner and Design Professional, upon issuance of the Notice to Proceed.
1. The meeting shall review responsibilities and personnel assignments.
 2. Attendees: The Owner, Owner's Commissioning Authority, Design Professional, and their consultants; the Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the meeting shall be familiar with the Project and authorized to make binding decisions on matters relating to the Work.
 3. Agenda: The meeting agenda will include items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Lines of communications.
 - f. Procedures for processing field decisions and Change Orders.
 - g. Procedures for RFIs.
 - h. Procedures for testing and inspecting.
 - i. Procedures for processing Applications for Payment.
 - j. Distribution of the Contract Documents.
 - k. Submittal procedures.
 - l. Sustainable design requirements.
 - m. Preparation of As-builts and turnover documents.
 - n. Use of the premises.
 - o. Work restrictions.
 - p. Working hours.
 - q. Owner's occupancy requirements.
 - r. Responsibility for temporary facilities and controls.
 - s. Procedures for moisture and mold control.
 - t. Procedures for disruptions and shutdowns.
 - u. Construction waste management and recycling.
 - v. Parking availability.
 - w. Office, work, and storage areas.
 - x. Equipment deliveries and priorities.
 - y. First aid.
 - z. Security.
 - aa. Progress cleaning.
 - bb. Safety.

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4. Minutes: The Owner and/or Design Professional will use Contract Manager to record and distribute meeting minutes.
- C. Progress Meetings: The Owner will conduct progress meetings at regular intervals.
1. Coordinate dates of meetings with preparation of payment requests.
 2. Attendees: The Owner's Commissioning Authority, and Design Professional, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with the Project and authorized to make binding decisions on matters relating to the Work.
 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of the Project.
 - a. The Project Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to the Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next scheduled progress meeting period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Progress cleaning.
 - 10) Quality and work standards.
 - 11) Status of correction of deficient items.
 - 12) Field observations.
 - 13) Status of RFIs.
 - 14) Status of proposal requests.
 - 15) Pending changes.
 - 16) Status of Change Orders.
 - 17) Pending claims and disputes.
 - 18) Documentation of information for payment requests.
4. Minutes: The Owner and/or Design Professional entity responsible for conducting the meeting will use Contract Manager to record and distribute the meeting minutes to each party present and to parties requiring information.
 - a. Schedule Updating: Coordinate with the Owner to revise the Project Schedule after each progress meeting where revisions to the schedule have been made or

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recognized. The Owner will issue revised schedule concurrently with the report of each meeting.

- D. Preinstallation Meetings: The Owner may conduct preinstallation meetings at the Project site before each construction activity that requires coordination with other construction and major assemblies of the Work requiring tight control and coordination.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow shall attend the meeting. The Owner to advise the Contractor, Design Professional and Owner's Commissioning Authority of scheduled meeting dates.
 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mockups.
 - i. Possible conflicts.
 - j. Compatibility problems.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written recommendations.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.
 3. The Owner and/or Design Professional will use Contract Manager to record significant meeting discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: The Owner and/or Design Professional will distribute minutes of the meeting to each party present and to other parties requiring information.
 5. Do not proceed with installation if the meeting cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the meeting at earliest feasible date.

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- E. Project Closeout Conference: The Owner may schedule and conduct a Project closeout conference, at a time convenient to the Owner and Design Professional, but no later than sixty (60) days prior to the scheduled inspection date for Substantial Completion.
1. The Owner will conduct the conference to review requirements and responsibilities related to the Project closeout.
 2. Attendees: The Owner, Owner's Commissioning Authority, Design Professional, and their consultants; the Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with the Project and authorized to make binding decisions on matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect or delay the Project closeout, including the following:
 - a. Submission of turnover documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Requirements for demonstration and training.
 - d. Preparation of Contractor's punch list.
 - e. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
 - f. Coordination of separate contracts.
 - g. Owner's partial occupancy requirements.
 - h. Installation of Owner's furniture, fixtures, and equipment.
 - i. Responsibility for removing temporary facilities and controls.
 4. Minutes: The Owner and/or Design Professional conducting meeting will use Contract Manager to record and distribute meeting minutes.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

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SECTION 013200 - PROJECT SCHEDULING AND PROGRESS DOCUMENTATION - MULTIPLE PRIME CONTRACTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and individual Specification Sections and Bid Milestone Schedule, apply to this Section.

1.2 SUMMARY

- A. This is a Multiple Prime contract project therefore each Prime Contractor is responsible for the scheduling and documentation requirements as outlined in this Section 013200.
- B. Section includes administrative and procedural requirements to plan, schedule and document the progress of construction during the performance of the Work, including the following:
 - 1. Critical Path Method (CPM) schedule and reports.
 - 2. Material location reports.
 - 3. Field condition reports.
 - 4. Special reports.
- C. Related Sections:
 - 1. Section 011200 – Contract Summary of Work, for preparing a combined CPM Schedule.
 - 2. Section 013300 – Submittal Procedure, for submitting schedules and reports.
 - 3. Section 014000 – Quality and Code Requirements, for submitting a schedule of tests and inspections.

1.3 DEFINITIONS

- A. Project: Work at the Site carried out pursuant to one or more Contracts.
- B. Activity: A discrete part of the Contract that can be identified for planning, scheduling, monitoring, and controlling the Project. Activities included in a CPM schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that has no total float.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.
- C. Bid Milestone Schedule: Interim milestones, included in the Contract Documents, which the Contractor utilizes to formulate the Baseline Schedule.

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- D. **Baseline Schedule:** Initial schedule, prepared by each Contractor, to complete the Work of the Contract in accordance with the Contract duration and starting point to which schedule updates are compared.
- E. **CPM:** Critical Path Method is a scheduling method used to plan and schedule construction projects where activities are arranged based on activity relationships creating a time scaled network diagram.
- F. **PDM:** Precedence Diagram Method follows the standard CPM calculations and allows for special logic relationships creating an interdependent relationship throughout the network.
- G. **Critical Path:** The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no total float.
- H. **Data Date:** The date when the status of the CPM schedule is determined, showing the calendar start date for the update period.
- I. **Float:** The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either the Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Substantial Completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Substantial Completion date.

1.4 INFORMATIONAL SUBMITTALS

- A. **Format for Submittals:** Submit required submittals in both electronic (PDF) file format and as electronic backup file in native software format.
- B. **CPM Schedule:** Schedule, of size required to display entire schedule for entire construction period.
 - 1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (baseline or updated) and date on label.
- C. **CPM Reports:** Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain; activity ID number, activity description, original duration, remaining duration, actual duration, early and late start and finish dates and total float in calendar days.
 - 1. **Activity Report:** List of all activities sorted by early or actual start date in each phase, area and level following the physical divisions of the Work.
 - 2. **Short Term Activity Report:** Lists all activities occurring from the update data date in a two month forward and one month back window.

GENERAL REQUIREMENTS for CONSTRUCTION

3. Logic Report: List of preceding and succeeding activities for all activities, sorted in ascending order by early or actual start date. Include activity ID number and float path(s).
 4. Total Float Report: Provide a cumulative list of total float from each update period with comments associated to any and all variances.
 5. Procurement Report: List all procurement activities sorted in order of the item being procured.
 6. Narrative Report: The project scheduler shall describe the nature of the submission, interpretation of calculations, issues affecting progress and a milestone analysis comparing progress against the baseline and update schedules.
- D. Material Location Reports: Submit at monthly intervals.
- E. Field Condition Reports: Submit at time of discovery of differing conditions.
- F. Special Reports: Submit at time of unusual event.
- G. Qualification Data: For project scheduler.

1.5 QUALITY ASSURANCE

- A. Project Scheduler Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within timeframes requested by the Owner. The project scheduler shall have or be able to obtain certification as a Planning and Scheduling Professional (PSP) or have a minimum of five years of demonstrated experience scheduling large capital projects.
- B. Prescheduling Conference: The Owner may conduct conference at the Project site to comply with requirements in Section 013100 - Project Management and Coordination. Review methods and procedures related to the Baseline Schedule and the CPM schedule, including, but not limited to, the following:
1. Review software limitations and content and format for reports.
 2. Verify availability of qualified personnel needed to develop and update schedule.
 3. Discuss coordination, including phasing, work stages, area separations, interim milestones and Beneficial Occupancy.
 4. Review delivery dates for Owner-furnished products.
 5. Review schedule for work of Owner's separate contracts.
 6. Review time required for review of submittals and resubmittals.
 7. Review requirements for tests and inspections by independent testing and inspecting agencies.
 8. Review time required for completion and startup procedures.
 9. Review and finalize list of construction activities to be included in schedule.
 10. Review submittal requirements and procedures.
 11. Review procedures for updating schedule.

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1.6 COORDINATION

- A. Coordinate preparation and processing of CPM schedules and reports with the performance of the Work and with CPM scheduling and reporting of separate Contractors.
 - 1. The General Construction Contractor (GC) shall coordinate new Baseline Schedules and CPM schedule updates with each prime contractor and provide a consolidated Baseline Schedule and consolidated CPM schedule updates to the Owner that include schedule input from the GC and each prime contractor. (Note: In cases where there is not a GC, substitute the pertinent trade contract above that will be responsible for the coordination of the schedule.)
- B. Each contractor shall coordinate CPM schedules with the Contractor's Submission Schedule, progress reports, and other required schedules and reports.
 - 1. Each contractor shall coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CRITICAL PATH METHOD SCHEDULE, GENERAL

- A. Bid Milestone Schedule: The Owner shall provide a Bid Milestone Schedule, which is attached to this section as a template for the Baseline Schedule. Nothing in the Bid Milestone Schedule, Baseline Schedule or CPM schedule shall preclude each Contractor from advancing the Work of the Contract.
 - 1. Include milestones indicated in the Contract Documents in Baseline Schedule, including, but not limited to, the Notice to Proceed, interim milestones, Substantial Completion, and Contract close-out.
 - 2. Substantial Completion date shall not be changed by submission of a schedule that shows an early completion date, unless approved by the Owner.
 - 3. No time for weather will be apportioned for foreseeable occurrences in a specific regional area. Each Contractor shall be responsible to determine reasonable averages and make allowances in the performance of the Work.
- B. Activities: Treat each numbered activity as a consumable resource for each principal element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities so no activity is longer than 15 days, unless specifically allowed by the Owner.
 - 2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 - Submittal Procedures in schedule. Coordinate submittal review times in the CPM schedule with dates entered in the Contractor's Submission Schedule.
 - 4. Startup and Testing Time: Include not less than 15 days for startup and testing.

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5. Substantial Completion: Indicate completion on the date established for Substantial Completion, and allow time for the Owner's administrative procedures necessary to execute the Notice of Substantial Completion (NOSC).
 6. Incomplete Work items and Contract Closeout: Include not more than 60 days for incomplete Work items and Contract Closeout Requirements.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents, or approved by the Owner prior to use and show how date constraints affect the sequence of the Work.
1. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities.
- D. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
1. Unresolved issues.
 2. Unanswered RFIs.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.
- E. Recovery CPM Schedule: When periodic update indicates the Work is 15 or more calendar days behind the current approved CPM schedule, submit a separate recovery CPM schedule indicating means by which each Contractor intends to regain compliance with the CPM schedule. Indicate changes to working hours, working days, crew sizes, and equipment required achieving compliance, and dating by which recovery will be accomplished, subject to Owner's approval.
- F. Computer Scheduling Software: Prepare CPM schedules using current version of a program that has been developed specifically to manage CPM schedules and interface with the Owner's electronic file of the Bid Milestone Schedule.
1. Utilize Primavera P6 or P3 Primavera Project Planner operating system.

2.2 CRITICAL PATH METHOD SCHEDULE (CPM SCHEDULE)

- A. Baseline Schedule: Prepare schedule using a time-scaled PDM network diagram representing the Work of the Contract. Total float time shall be equal to or greater than zero in the Baseline Schedule.
1. Within 15 days of the date established for the Notice to Proceed each contractor shall provide a baseline schedule to the GC. Outline significant construction activities for the first 90 days of construction. Include skeleton diagram for the remainder of the Work based on indicated activities.
 2. Within 30 days following receipt of the last baseline schedule from each Contractor, the GC shall provide to the Owner a consolidated Baseline Schedule.

GENERAL REQUIREMENTS for CONSTRUCTION

- a. Failure to include any work item required for the performance of the Work shall not excuse each Contractor from completing the Work of the Contract within applicable completion dates, regardless of the Owner's approval of the schedule.
- B. CPM Schedule: Prepare contemporaneous schedules using a time-scaled PDM network for sequencing the Work and showing the progress of the Work.
1. Establish procedures for monitoring and updating the CPM schedule and for reporting progress. Coordinate procedures with the progress meeting and payment request date.
 2. Coordinate the Work occurring concurrently through the integration of other Contractors Baseline Schedules into the CPM schedule.
 3. Conduct educational workshops to train and inform the Contractor's key Project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.
 4. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule in order to correlate with Contract durations.
- C. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work of the Contract. At minimum, each individual specification section, including General Requirement sections, as indicated in the Project Manual, shall be listed as an activity.
1. Activities ID: Provide a unique identifier to each activity. No activity ID shall be recycled or reused.
 2. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
 - a. Preparation and processing of submittals.
 - b. Mobilization and demobilization.
 - c. Purchase of materials.
 - d. Delivery.
 - e. Fabrication.
 - f. Utility interruptions.
 - g. Installation.
 - h. Work by Owner that may affect or be affected by the Contractor's activities.
 - i. Testing and commissioning.
 - j. Incomplete Work items and Contract closeout.
 3. Actual Activity Dates: Once an activity has been assigned an actual date of occurrence, the status of that activity shall not change. Any change to actual dates must be accompanied with supporting data and approved by the Owner. No actual start date shall occur ahead of the data date.
 4. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with the Bid Milestone Schedule dates.
 5. Processing: Process data to produce output data status on a computer-drawn, PDM network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract duration.
 6. Calculations: The schedule network shall be calculated allowing activities to retain their original logic. Progress override shall not be used when calculating the network status.

GENERAL REQUIREMENTS for CONSTRUCTION

7. Logic: Leads and lags will not be used when the creation of an activity will perform the same function. Lag durations contained in the schedule shall not have negative value. Lead and lag durations shall not exceed the durations of the activity they are assigned.
 - a. There shall be only two open ended activities; (1) Notice to Proceed, with no predecessor logic, and (2) Final Payment, with no successor logic. All intermediate activity logic shall be connected.
 - b. Out of sequence activities that have progressed before all preceding logic will be allowed only on a case by case basis, as approved by the Owner. The Contractor shall propose logic corrections to eliminate all out of sequence progress and correct out of sequence progress that continues for more than two update cycles by logic revisions, as approved by the Owner.
 8. Float: The Owner shall reject the schedule and schedule updates for the use of float suppression techniques such as preferential sequencing, special lead lags logic constraints, zero total or zero free float constraints, extended activity times, or imposing constraint dates other than what is required by the Contract.
 - a. The use of resource leveling used for the purpose of artificially adjusting activity durations to consume float and influence the critical path is prohibited.
 - b. A schedule showing work completing in less time than the Contract duration and accepted by the Owner, will be considered to have float.
 - c. Any float generated during the performance of the Work, due to efficiencies of the Owner or any Contractor is not for sole use of the party generating the float.
 - d. Negative float will not be a basis for requesting time extensions and will not be construed as a means of acceleration or schedule extension.
 9. Format: Follow the applicable individual specification sections of the Work as the bases for the content of the CPM schedule. Organize the CPM schedule to provide the necessary detail for each area, level, quadrant and section as needed in the performance of the Work.
- D. Changes in the Work: For each proposed change and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall CPM schedule.
- E. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
1. Identification of activities that have changed, including the reason each adjustment was necessary.
 2. Changes in early and late finish dates.
 3. Changes in activity durations in workdays.
 4. Changes in the critical path.
 5. Changes in total float or slack time.
 6. Changes in the duration for Substantial Completion.

GENERAL REQUIREMENTS for CONSTRUCTION

2.3 REPORTS

- A. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.
- B. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.4 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, and response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise the Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 CPM SCHEDULE

- A. Project Scheduler: Engage a consultant or person skilled in construction planning and scheduling to provide planning, scheduling, evaluation, and reporting services using CPM scheduling.
 - 1. In-House Option: The Owner may waive the requirement to retain a consultant if Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques. Submit qualifications.
 - 2. Meetings: Project scheduler shall attend all meetings related to the Project progress, alleged delays, and time impact.
- B. CPM Schedule and CPM Reports Updating: On a monthly basis the GC shall update the CPM schedule to reflect actual construction progress and activities. The GC shall coordinate with each prime contractor to obtain input from each prime contractor for each CPM schedule update. The GC shall issue schedule and reports one week before each regularly scheduled progress meeting.
 - 1. The GC shall revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Each contractor shall provide input to the GC as necessary to accomplish said revisions. Issue updated schedule concurrently with the

GENERAL REQUIREMENTS for CONSTRUCTION

- CPM reports of each such meeting. As a minimum, schedule update submissions shall occur monthly and within 30 days of the schedule Data Date.
2. Include CPM reports with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate final remaining duration for each activity.
- C. Distribution: Submit one electronic copy, in format specified, to the Owner and distribute copies of approved schedule and reports to the Owner, Design Professional, separate contractors, testing and inspecting agencies, and other parties identified by the Owner with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
 2. When revisions are made, distribute updated schedules and reports to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and individual Specification Sections and Contractor's Submission Schedule, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Sections:
 - 1. Section 013200 – Construction Progress Documentation, for submitting schedules and reports, includes Contractor's construction schedule.
 - 2. Section 017700 – Contract Closeout Requirements, for documents required to closeout contract.
 - 3. Section 017823 – Operation and Maintenance Manuals, for submitting operation and maintenance manuals.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require the Design Professional's responsive action. Action submittals are those submittals indicated in individual specification sections as action submittals.
- B. Informational Submittals: Written and graphic information and physical samples that do not require the Design Professional's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual specification sections as informational submittals.
- C. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.
- D. Required Submittal List Utility application: Interacts with and to be used with the Owner's Contract Manager system. The Design Professional uses the utility to itemize the list of submission items needed to be submitted by the Contractor in order to insure the design intent will be satisfied and inclusive of all Project turnover documents and/or Contract Closeout Requirements.
- E. Contractor's Submission Schedule: The itemized list of project submission requirements printed as a report from Contract Manager. The Contractor enters the date each item needs to be submitted in order to meet the CPM schedule and returns this document to the Owner.

GENERAL REQUIREMENTS for CONSTRUCTION

1.4 ACTION SUBMITTALS

- A. Submittal Schedule: The Contractor's Submission Schedule is attached to this section, prepared by the Design Professional. The Contractor is to coordinate and cooperate with the Owner and Design Professional to arrange in chronological order by dates required by the construction schedule. Coordinate time required for review, ordering, manufacturing, fabrication, and delivery to establish dates. Coordinate additional time required for making corrections or modifications to submittals noted by the Design Professional and additional time for handling and reviewing submittals required by those corrections.
1. Coordinate the Contractor's Submission Schedule with list of subcontracts, the schedule of values, and coordinated CPM schedule.
 2. Initial Submittal: Submit in accordance with start-up CPM schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 3. Final Submittal: Submit concurrently in accordance with the complete CPM schedule.
 - a. Coordinate with the Owner and Design Professional revised Contractor's Submission Schedule to reflect changes in current status and timing for submittals.
- B. Format for Submittals: Submit required submittals in electronic (PDF) file format.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Design Professional's Digital Data Files: Electronic copies of CAD Drawings of the Contract Drawings will not be provided by the Design Professional for the Contractor's use in preparing submittals.

Coordination: Coordinate preparation and processing of submittals with the performance of the Work.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Commissioning Authority will review submittals applicable to systems being commissioned for compliance with commissioning needs, concurrent with the Design Professional review and approval.
3. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
4. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
5. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Submit Operation and Maintenance Manuals concurrent with action submittal.
 - b. The Owner or Design Professional reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

GENERAL REQUIREMENTS for CONSTRUCTION

- B. Processing Time: Allow time for submittal review, including time for re-submittals, as follows. Time for review shall commence on the Design Professional's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including re-submittals.
1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. The Design Professional will advise the Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Re-submittal Review: Allow 15 days for review of each re-submittal.
 4. Sequential Review: Where sequential review of submittals by the Design Professional's consultants, the Owner, or other parties is indicated, allow 21 days for initial review of each submittal.
- C. Identification and Information: Place a permanent label or title block on each paper copy submittal item for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by the Design Professional.
 3. Include the following information for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name of Design Professional.
 - d. Name of Construction Manager (if applicable).
 - e. Name of Contractor.
 - f. Name of subcontractor.
 - g. Name of supplier.
 - h. Name of manufacturer.
 - i. Submittal number including revision identifier.
 - 1) Submittal number shall be the submittal item number and Submittal Package number designated in the Contractor's Submission Schedule.
 - j. Drawing number and detail references, as appropriate.
 - k. Location(s) where product is to be installed, as appropriate.
 - l. Other necessary identification.
- D. Identification and Information: Identify and incorporate information in each electronic submittal file as follows:
1. Assemble complete submittal package into a single indexed file with links enabling navigation to each item.
 2. Name file with submittal number or other unique identifier, including revision identifier.
 3. Provide means for insertion to permanently record the Contractor's review and approval markings and action taken by the Design Professional.
 4. Include the following information on an inserted cover sheet:

GENERAL REQUIREMENTS for CONSTRUCTION

- a. Project name.
 - b. Date.
 - c. Name and address of Design Professional.
 - d. Name of Construction Manager (if applicable).
 - e. Name of Contractor.
 - f. Name of firm or entity that prepared submittal.
 - g. Name of subcontractor.
 - h. Name of supplier.
 - i. Name of manufacturer.
 - j. Number and title of appropriate Specification Section.
 - k. Drawing number and detail references, as appropriate.
 - l. Location(s) where product is to be installed, as appropriate.
 - m. Related physical samples submitted directly.
 - n. Other necessary identification.
5. Include the following information as keywords in the electronic file metadata:
- a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.
 - d. Product name.
- E. Options: Identify options requiring selection by the Design Professional.
- F. Deviations: Identify deviations from the Contract Documents on submittals.
- G. Additional Copies: Unless the Design Professional observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
- H. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. The Design Professional will return submittals, without review, received from sources other than the Contractor.
1. Transmittal Form: Use the Contractor's office form.
 2. Transmittal Form: Provide locations on form for the following information:
 - a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).
 - e. Names of subcontractor, manufacturer, and supplier.
 - f. Category and type of submittal.
 - g. Submittal purpose and description.
 - h. Specification Section number and title.
 - i. Indication of full or partial submittal.
 - j. Drawing number and detail references, as appropriate.
 - k. Transmittal numbered consecutively.
 - l. Submittal and transmittal distribution record.
 - m. Remarks.
 - n. Signature of transmitter.

GENERAL REQUIREMENTS for CONSTRUCTION

3. On an attached separate sheet, prepared on the Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by the Design Professional on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- I. Re-submittals: Make re-submittals in same form and format.
 1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked with approval notation from the Design Professional's action stamp.
 - J. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, and installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
 - K. Use for Construction: Use only final submittals that are marked with approval notation from the Design Professional's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 1. Submit electronic submittals via email as electronic (PDF) files, to the Design Professional. If applicable, the Design Professional will forward submittals to the Commissioning Authority for systems being commissioned. The Owner may request paper copies of certain submittals for onsite coordination.
 - a. The Design Professional, through the Owner, will return annotated file. Annotate and retain one copy of file as an electronic Project turnover document file.
 - b. The Commissioning Authority through the Design Professional will return annotated file.
 2. Operation and Maintenance Manual Submittals: Submit concurrent with the Action Submittal, as related in individual Specification Sections.
 3. Closeout Submittals: Comply with requirements specified in Section 017700 – Contract Closeout Requirements and as listed in the Contractor's Submission Schedule.
 4. Permits, Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Permits, Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

GENERAL REQUIREMENTS for CONSTRUCTION

- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Submittal Package number and Submittal Item number.
 - b. Manufacturer's catalog cuts.
 - c. Manufacturer's product specifications.
 - d. Standard color charts.
 - e. Statement of compliance with specified referenced standards.
 - f. Testing by recognized testing agency.
 - g. Application of testing agency labels and seals.
 - h. Notation of coordination requirements.
 - i. Availability and delivery time information.
 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 5. Submit Product Data concurrent with Samples.
 6. Submit Product Data in electronic (PDF) file format.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Submittal Package number and Submittal Item number.
 - b. Identification of products.
 - c. Schedules.
 - d. Compliance with specified standards.
 - e. Notation of coordination requirements.
 - f. Notation of dimensions established by field measurement.
 - g. Relationship and attachment to adjoining construction clearly indicated.
 - h. Seal and signature of professional engineer if specified.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 42 inches.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

GENERAL REQUIREMENTS for CONSTRUCTION

1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Submittal Package number and Submittal Item number.
 - b. Generic description of Sample.
 - c. Product name and name of manufacturer.
 - d. Sample source.
 - e. Number and title of applicable Specification Section.
 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as the Owner's property, are the property of the Contractor.
 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: For turnover purpose, submit six full sets of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. The Design Professional, through the Owner, will return submittal with options selected.
 5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit six sets of Samples. The Design Professional, through the Owner, will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a turnover sample.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least six sets of paired units that show approximate limits of variations.
- E. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:

GENERAL REQUIREMENTS for CONSTRUCTION

1. Name, address, and telephone number of entity performing subcontract or supplying products.
 2. Number and title of related Specification Section(s) covered by subcontract.
 3. Drawing number and detail references, as appropriate, covered by subcontract.
 4. Submit subcontract list in PDF electronic file, to the Owner.
- F. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- G. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on American Welding Society (AWS) forms. Include names of firms and personnel certified.
- H. OSHA Certificates: Upon the Owner's request, submit certificates of the OSHA 10-hour Construction Safety and Health Course – S1537-A, for all laborers, workers and mechanics working on site.
- I. Installer Certificates: Upon the Owner's request, submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- J. Manufacturer Certificates: Upon the Owner's request, submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- K. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- L. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- M. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to the Design Professional.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date

GENERAL REQUIREMENTS for CONSTRUCTION

of the Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 DESIGN PROFESSIONAL'S ACTION

- A. General: The Design Professional will not review submittals that do not bear the Contractor's approval stamp and will return them without action.
- B. Action Submittals: The Design Professional will review each submittal, make marks to indicate corrections or modifications required, and return it through the Owner. The Design Professional will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- C. Informational Submittals: The Design Professional will review each submittal and will return it if it does not comply with requirements.
- D. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from the Design Professional.
- E. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- F. Submittals not required by the Contract Documents may not be reviewed and may be discarded.
- G. On projects that have commissioning, the Commissioning Authority will receive copies of the submittals through the Design Professional and will provide comments on the submittals via the Design Professional.

3.3 CONTRACTOR'S SUBMITTAL SCHEDULE

- A. The Contractor's Submission Schedule: The Contractor's Submission Schedule, prepared by the Design Professional is attached following the end of this section. The Contractor shall provide the dates each item needs to be submitted to the Owner no later than 30 days after approval of CPM schedule. The schedule shall include the date of all shop drawings, samples, materials that shall be submitted and the date approval is required. The Contractor shall adhere to the submittal processing time as describe in paragraph 1.5 above when developing the submittal schedule. The Contractor is to coordinate and cooperate with the Owner and Design Professional to complete scheduling in accordance with the approved CPM schedule.

END OF SECTION 013300

GENERAL REQUIREMENTS for CONSTRUCTION

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PROJECT:	BROOME DDSO
	ROAD - PARKING LOT EXPANSION PROJECT
LOCATION:	249 GLENWOOD ROAD, BINGHAMTON, NY 13901
PROJ.NO.:	354360 C&S #482.112.002
ARCHITECT:	C&S Engineers, Inc

SUBMITTAL LOG

General

A = Approved as submitted; AN = Approved as Noted; Rej = Rejected; RR = Resubmittal Required; SS = Submit Specified Item; NET = No Exceptions Taken; MCN = Make Corrections Noted

Item No.	SPEC SECT#	Sub. No.	DESCRIPTION / REFERENCE TO	SPEC REFER	Date Received	First Submittal		Date Returned	Date Received	Second Submittal		Date Returned	REMARKS
						Action	Date			Action	Date		
	013100		Project Management and Coord.										
		1.4A	Baseline Schedules (Coordination)										
	013200		Project Scheduling & Progress Documentation										
		1.4A	Format for Schedules										
		1.4B	CPM Schedule										
		1.4C	CPM Reports										
		1.4D	Material Location Reports										
		1.4E	Field Condition Reports										
		1.4F	Special Reports										
		1.4G	Qualification Data										
	013300		Submittal Procedures										
		1.4A	Submittal Schedule										
	014000		Quality and Code Requirements										
		1.4A	Shop Drawings										
		1.5A	Contractor's Quality Control Plan										
		1.5B	Quality Control Manager Qualifications										
		1.5C	Testing Agency Qualifications										
		1.5D	Schedule of Tests and Inspections										
	015000		Temporary Facilities and Controls										
		1.4A	Site Plan										
		1.4B	Erosion and Sedimentation Control Plan										
		1.4C	Moisture-Protection Plan										
		1.4D	Dust/HVAC Control Plans										
	016000		Product Requirements										
		1.4A	Comparable Product Requests										
		1.4B	Procurement Exemption Approval Product Specification										
	017329		Cutting and Patching Proposal										
		1.4A	Cutting and Patching Proposal										
	017419		Construction Waste Management										
		1.03A	CWM Plan/Report										



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						Action	Date			Action	Date		
	017700		Contract Closeout Requirements										
		1.4	Notice of Substantial Completion										
		1.5	List of Incomplete Items										
		1.6	Contract Turnover Documents										
		1.8	O&M Manuals										
		1.9	Pencil Copy Billing Request										
	017823		Operation and Maintenance Manuals										
		1.4A	Required Manuals										
	017839		As-Built Documents										
		1.4	Required Documents										
	024119		Selective Site Demolition										
		1.5.A	Photographs or Video										
		1.5.B	Record Drawings										
	028700		Removal and Disposal of Universal Wastes										
		1.02A	Pework Submittals										
		1.02B	On-site During Construction Requirements										
		1.02C	Project Close-out Requirements										
	033000		Cast-in-place Concrete										
		1.2.A	Product Data										
		1.2.B	Design Mixes										
		1.2.C	Steel Reinforcement Shop Drawings										
		1.2.D	Construction Joint Layout										
	078400		Firestopping (By Owner)										
		1.6.A	Product Data										
		1.6.B	Design Listings										
		1.6.C	Installation Instructions										
		1.6.D	Engineering Judgement as Required										
		1.6.E	Safety Data Sheets										
		1.6.F	Qualification Data										
		1.6.G	Quality Control Manual										
		1.6.H	Firestop Schedule										
		1.6.I	Firestop Application Log										



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Item No.	SPEC SECT#	Sub. No.	DESCRIPTION / REFERENCE TO	SPEC REFER	Date Received	First Submittal		Date Returned	Date Received	Second Submittal		Date Returned	REMARKS
						Action	Date			Action	Date		
260519			LED Exterior Lighting										
		1.4.A	Product Data										
		1.4.A	Product Schedule										
260526			Grounding and Bonding										
		1.4.A	Operation & Maintenance Data										
		1.4.A	Product Schedule										
260529			Hangars and Supports - By Owner										
		1.2.A	Product Data										
		1.2.B	Shop Drawings										
260533			Raceways and Boxes										
		1.2.A	Product Data										
		1.2.B	Shop Drawings										
260543			Underground Ducts and Raceways										
		1.3.A	Product Data										
		1.3.B	Shop Drawings										
260544			Sleeve and Sleeve Seals - By Owner										
		1.2.A	Product Data										
260553			Identification for Electrical										
		1.2.A	Product Data										
265613			Lighting Poles and Standards										
		1.3.A	Product Data										
		1.3.B	Shop Drawings										
265619			LED Exterior Lighting										
		1.3.A	Product Data										
		1.4	Product Information										
		1.5	Operation & Maintenance Data										
310100			Maintenance of Eathwork										
		1.2	Pre-Construction Video										



PROJECT:	BROOME DDSO
	ROAD - PARKING LOT EXPANSION PROJECT
LOCATION:	249 GLENWOOD ROAD, BINGHAMTON, NY 13901
PROJ.NO.:	354360 C&S #482.112.002
ARCHITECT:	C&S Engineers, Inc

SUBMITTAL LOG

General

A = Approved as submitted; AN = Approved as Noted; Rej = Rejected; RR = Resubmittal Required; SS = Submit Specified Item; NET = No Exceptions Taken; MCN = Make Corrections Noted

Item No.	SPEC SECT#	Sub. No.	DESCRIPTION / REFERENCE TO	SPEC REFER	Date Received	First Submittal		Date Returned	Date Received	Second Submittal		Date Returned	REMARKS
						Action	Date			Action	Date		
	310513		Soils for Earthwork										
		1.3.A	Product Data										
		1.3.B	Material Test Reports										
	310516		Aggregate for Earthwork										
		1.3.A	Product Data										
		1.3.B	Materials Certificate										
	310519		Geosynthetics for Earthwork										
		2.2.A	Product Data										
		2.2.A	Catalog Data										
	311000		Site Clearing										
		1.5.A	Trees and Plantings Photos or Video										
		1.5.B	Record Drawings										
	312500		Soil Erosion & Sediment Control										
		1.1	Qualification Data										
	315000		Excavation Support & Protection										
		1.5	Shop Drawings										
		1.6	Qualification Data										
		1.6	Existing Conditions Photo and Video										
		1.6	Record Drawings										
	321200		Flexible Paving										
		1.2.A	Product Data										
		1.2.B	Manufacturer's Certificate										
	321273		Pavement Joint Sealants										
		1.3.A	Product Data										
		1.4	Qualification Data										
		1.4	Product Certificates										
		1.4	Manufacturer's Installation Instructions										
	321273		Cement Concrete Pavement										
		1.2.A	Product Data										
		1.2.B	Design Mixes										
		1.2.C	Material Test Reports										
		1.2.D	Material Certificates										



PROJECT:	BROOME DDSO
	ROAD - PARKING LOT EXPANSION PROJECT
LOCATION:	249 GLENWOOD ROAD, BINGHAMTON, NY 13901
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						Action	Date			Action	Date		
	321640		Stone Curbs										
		1.3.A	Product Data										
	321723		Pavement Markings										
		1.4	Manufacturer's Installation Instructions										
		1.4	Manufacturer's Certificate										
	329200		Turf and Grasses										
		1.4	Product Data										
		1.4	Grass Seed Certification										
		1.4	Qualification Data										
		1.4	Product Certificates										
		1.4	Material Test Reports										
		1.4	Planting Schedule										
		1.4	Maintenance Instruction										
	329200		Plants										
		1.4	Product Data										
		1.4	Samples										
		1.4	Qualification Data										
		1.4	Product Certificates										
		1.4	Planting Schedule										
		1.4	Maintenance Instructions										
		1.4	Warranty										
	330132		Bypass Pumping										
		1.4	Pump Design Data										
	331116		Water Utility Piping										
		1.3.A	Shop Drawings										
		1.3.B	Product Data and Catalog Cuts										
	331300		Cleaning & Disinfection										
		1.3.A	Cleaning & Disinfection Plan										
	334100		Sanitary Utility Piping										
		1.4	Manufacturer's Certificate										
		1.4	Coordination Drawings										



PROJECT:	BROOME DDSO
	ROAD - PARKING LOT EXPANSION PROJECT
LOCATION:	249 GLENWOOD ROAD, BINGHAMTON, NY 13901
PROJ.NO.:	354360 C&S #482.112.002
ARCHITECT:	C&S Engineers, Inc

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Item No.	SPEC SECT#	Sub. No.	DESCRIPTION / REFERENCE TO	SPEC REFER	Date Received	First Submittal		Date Returned	Date Received	Second Submittal		Date Returned	REMARKS
						Action	Date			Action	Date		
	334100		Storm Drainage Piping										
		1.4	Manufacturer's Data										
		1.4	Manufacturer's Certificate										
		1.4	Coordination Drawings										
	334413		Precast Concrete Manholes and Catch Basins										
		1.4	Shop Drawings										
		1.4	Field Quality Control Reports										
		1.4	Manufacturers										
	334438		Adjusting Elevations of Manholes & Drainage Structures										
		1.4	Qualifications										
	340133		Maintenance & Protection of Traffic										
		1.3.A	Shop Drawings										
	344113		Traffic Signs										
		1.1.A	Product Data										
		1.1.A	Shop Drawings										

GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 014000 - QUALITY AND CODE REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and Individual Specification Sections and New York State (NYS) Statement of Special Inspections and Tests, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality assurance and quality control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit the Contractor's other quality assurance and quality control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for the Contractor to provide quality assurance and quality control services required by the Owner or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections:
 - 1. Section 013200 - Construction Progress Documentation, for developing a schedule of required tests and inspections.
 - 2. Individual Specification Sections, for specific inspections and tests requirements.

1.3 DEFINITIONS

- A. Quality Assurance Services: Activities, actions, and procedures performed during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements.
- C. Mockups: Full size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under sample submittals; to demonstrate aesthetic effects and, where

GENERAL REQUIREMENTS for CONSTRUCTION

indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Approved mockups establish the standard by which the Work will be judged.

- D. **Product Testing:** Tests and inspections that are performed by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- E. **Field Quality Control Testing:** Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- F. **Testing Agency:** An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- G. **Installer/Applicator/Erector:** The Contractor or another entity engaged by the Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
- H. **Experienced:** When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 ACTION SUBMITTALS

- A. **Shop Drawings:** For mockups, provide plans, sections, and elevations, indicating materials and size of mockup construction.
 - 1. Indicate manufacturer and model number of individual components.
 - 2. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.

1.5 INFORMATIONAL SUBMITTALS

- A. **Contractor's Quality Control Plan:** For quality assurance and quality control activities and responsibilities.
- B. **Contractor's Quality Control Manager Qualifications:** For supervisory personnel.
- C. **Testing Agency Qualifications:** For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- D. **Schedule of Tests and Inspections:** Prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Entity responsible for performing tests and inspections.
 - 3. Description of test and inspection.
 - 4. Identification of applicable standards.
 - 5. Identification of test and inspection methods.

GENERAL REQUIREMENTS for CONSTRUCTION

6. Number of tests and inspections required.
7. Time schedule or time span for tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality control service.

1.6 CONTRACTOR'S QUALITY CONTROL PLAN

- A. Quality Control Plan, General: Submit quality control plan within 10 days of Notice to Proceed, and not less than five days prior to preconstruction conference. Submit in format acceptable to the Owner. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality assurance and quality control responsibilities. Coordinate with Contractor's construction schedule.
- B. Quality Control Personnel Qualifications: Engage qualified full-time personnel trained and experienced in managing and executing quality assurance and quality control procedures similar in nature and extent to those required for Project.
 1. Project quality control manager may also serve as Project superintendent.
- C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- D. Testing and Inspection: Include in quality control plan a comprehensive schedule of the Work requiring tests or inspections, including the following:
 1. The Contractor-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and the Contractor-elected tests and inspections.
 2. Special inspections required by authorities having jurisdiction and indicated on the "NYS or NYC Statement of Special Inspections and Tests."
- E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work the Owner has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

1.7 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
 1. Date of issue.

GENERAL REQUIREMENTS for CONSTRUCTION

2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of technical representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Statement that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
6. Statement whether conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of factory-authorized service representative making report.
2. Statement that equipment complies with requirements.
3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
4. Statement whether conditions, products, and installation will affect warranty.
5. Other required items indicated in individual Specification Sections.

1.8 PERMITS, LICENSES, AND CERTIFICATES:

A. The Contractor shall obtain, maintain and pay for all applications, permits, filings, and licenses necessary for the execution of the Work and for the use of such Work when completed as required by any and all authorities having jurisdiction. The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations and lawful orders of authorities having jurisdiction bearing on performance of the Work.

GENERAL REQUIREMENTS for CONSTRUCTION

- B. The Contractor shall promptly assist the Owner in securing all approvals from authorities having jurisdiction. Without limitation, the Contractor shall assist the Owner in making application for Project approval, variances or other approvals, Letters of Completion, Temporary Certificates of Occupancy, and Certificates of Occupancy, including completion of all necessary applications and supporting documentation.
- C. The Contractor shall comply with all regulations governing conduct, access to the premises, operation of equipment and systems and conduct while in or near the premises and shall perform the Work in such a manner as not to unreasonably interrupt or interfere with the conduct of business of the Institution.
- D. For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, material certificates/affidavits, approvals, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.
- E. Dormitory Authority Permits: Prior to commencement of the Work, the Dormitory Authority shall provide the Contractor, at no costs, a Construction Permit for performance of the Work and post a copy at the Project site.
 - 1. The Contractor shall secure and pay for all other work permits, applications, filings, and approvals that are associated with the Work of the Contract and pay all other permits, fees, licenses and inspections necessary for the proper execution and completion of the Contract as required by all other applicable authorities having jurisdiction.
 - 2. Each Electrical Contractor shall, at no additional costs to the Owner, provide for inspection of all electrical Work of the Contract and provide a certificate of compliance from an independent electrical inspection agency acceptable to the Owner.
- F. Municipal Permits: The Contractor shall secure and pay for a building permit and all work permits, applications, filings, and approvals that are associated with the Work of the Contract and pay all other permits, fees, licenses and inspections necessary for the proper execution and completion of the Contract as required by applicable authorities having jurisdiction.
 - 1. The Contractor shall secure required building permit or work permits and approvals prior to commencement of the Work, provide a copy to the Owner and post a copy of the permit at the Project site.
 - 2. The Contractor shall be responsible to maintain updated permits and approvals.
 - 3. Upon Substantial Completion of the Work of the Contract, the Contractor shall secure all required approvals from applicable authorities having jurisdiction. The Contractor shall provide a copy to the Owner.

1.9 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

GENERAL REQUIREMENTS for CONSTRUCTION

- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
- F. Testing Agency Qualifications: An independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329, and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
- G. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- H. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups in location and of size indicated or, if not indicated, as directed by the Owner.
 - 2. Notify the Owner seven days in advance of dates and times when mockups will be constructed.
 - 3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at the Project.
 - 4. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 5. Obtain the Owner's approval of mockups before starting work, fabrication, or construction.
 - a. Allow seven days for initial review and each re-review of each mockup.
 - 6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 - 7. Demolish and remove mockups when directed by the Owner.

GENERAL REQUIREMENTS for CONSTRUCTION

1.10 QUALITY CONTROL

- A. Owner Responsibilities: Where quality control services are indicated as the Owner's responsibility, the Owner will engage a qualified testing agency to perform these services.
1. The Owner will furnish the Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to the Owner are the Contractor's responsibility. Perform additional quality control activities required to verify that the Work complies with requirements, whether specified or not.
1. Unless otherwise indicated, provide quality control services specified and those required by authorities having jurisdiction. Perform quality control services required of the Contractor by authorities having jurisdiction, whether specified or not.
 2. Where services are indicated as the Contractor's responsibility, engage a qualified testing agency to perform these quality control services.
 - a. Contractor shall not employ same entity engaged by the Owner, unless agreed to in writing by the Owner.
 3. Notify testing agencies at least 24 hours in advance of time (excluding weekends and holidays) when Work that requires testing or inspecting will be performed.
 4. Where quality control services are indicated as the Contractor's responsibility, submit a written report, in duplicate, of each quality control service.
 5. Testing and inspecting requested by the Contractor and not required by the Contract Documents are the Contractor's responsibility.
 6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 - Submittal Procedures.
- D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- E. Retesting/Reinspecting:
1. Regardless of whether original tests or inspections were the Contractor's responsibility, provide quality control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
 2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents, or costs attributable to the Contractor's lack of coordination in properly scheduling the Work requiring testing and

GENERAL REQUIREMENTS for CONSTRUCTION

inspection will be charged to Contractor and the Contract Sum will be adjusted by Change Order.

- F. Testing Agency Responsibilities: Cooperate with the Owner and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify the Owner and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 4. Submit a written report, in duplicate, of each test, inspection, and similar quality control service through Contractor.
 5. Does not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 6. Do not perform any duties of the Contractor.
- G. Associated Services: The Contractor shall cooperate with agencies performing required tests, inspections, and similar quality control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. The Contractor shall provide the following:
1. Access to the Work, including equipment required to access the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 4. Facilities for storage and field curing of test samples.
 5. Delivery of samples to testing agencies.
 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality assurance and quality control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality control services required by the Contract Documents. Coordinate and submit concurrently with Contractor's construction schedule. Update as the Work progresses.
1. Distribution: Distribute schedule to the Owner, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

GENERAL REQUIREMENTS for CONSTRUCTION

1.11 NYS SPECIAL INSPECTIONS AND TESTS

- A. Special Inspections and Tests: The Owner will engage a qualified testing agency to conduct special inspections and tests required by authorities having jurisdiction as the responsibility of the Owner, as indicated in the NYS Statement of Special Inspections and Tests, attached to this Section, and as follows:
1. Notifying Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 2. Submitting a written report of each test, inspection, and similar quality control service to the Owner with copy to the Contractor and to authorities having jurisdiction. Frequency of reporting shall be determined in consultation with the Owner.
 3. Submitting a final report of special tests and inspections at Substantial Completion, this includes a list of unresolved deficiencies.
 4. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents or code requirements.
 5. Retesting and reinspecting corrected work.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve a Contractor of responsibility for compliance with the Contract Document requirements.
1. Specified tests, inspections, and related actions do not limit Contractor's quality control procedures that facilitate compliance with the Contract Document requirements.
 2. Inspections and tests performed by the testing agency shall in no way relieve the Contractor of the responsibility to construct in accordance with the Contract Documents.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
1. Date test or inspection was conducted.
 2. Description of the Work tested or inspected.
 3. Date test or inspection results were transmitted to the Design Professional.
 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for the Owner's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

GENERAL REQUIREMENTS for CONSTRUCTION

- B. Protect construction exposed by or for quality control service activities.
- C. Repair and protection are the Contractor's responsibility, regardless of the assignment of responsibility for quality control services.

END OF SECTION 014000



DASNY

2020 NYS BUILDING CODE STATEMENT OF SPECIAL INSPECTIONS

BCNYS §1704.3 requires that the project Registered Design Professional in responsible charge prepare a Statement of Special Inspections. Completion of this Statement of Special Inspections and submission to the Code Compliance Unit with the Construction Permit Application is a condition for issuance of the Construction Permit.

Campus/Facility: Broome Developmental Center

Project Title: Broome DDSO Parking Lot Expansion Project - Phase 2

Project #: 354360

DASNY Project Manager: Daniel Coughlin (Construction), Lisa Paganin PE (Design)

Registered Design Professional (RDP): Dwight H. Wethey, PE

Name of Person Completing Statement: Dwight H. Wethey

Phone: 315-703-4419

Date: 01/19/2024

Comments: Special Inspections are not required for this Project

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
A. Special Cases (Add requirements under Part S as necessary)			1705.1.1			Special Inspections and Tests shall be required for proposed work that is, in the opinion of the building official, unusual in its nature.
B. Steel Construction.			1705.2			
1. Structural Steel			1705.2.1			
a. Inspection tasks prior to welding;			1705.2.1			AISC 360 Table N5.4-1
i. Welding procedure specifications (WPSs) available	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-1
ii. Manufacturer certifications for welding consumables available	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-1
iii. Material identification (type/grade)		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-1
iv. Welder identification system		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-1 The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Stamps, if used, shall be the low-stress type.
v. Fit up of groove welds		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-1

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
(including joint geometry)						
vi. Configuration and finish of access holes		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-1
vii. Fit-up of fillet welds		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-1
viii. Check Welding equipment		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-1
b. Inspection Tasks During Welding			1705.2.1			AISC 360 Table N5.4-2
i. Use of qualified welders.		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-2
ii. Control and Handling of welding consumables.		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-2
iii. No welding over cracked tack welds.		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-2
iv. Environmental Conditions		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-2
v. Verify WPS followed		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-2
vi. Verify Welding Techniques		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-2
c. Inspection Tasks after Welding			1705.2.1			AISC 360 Table N5.4-3
i. Welds cleaned		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-3
ii. Size, length, and location of welds	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-3
iii. Welds meet visual acceptance criteria	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-3
iv. Arc strikes	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-3
v. K-area	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-3; When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75mm) of the weld.
vi. Backing removed and weld tabs removed (if required)	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-3
vii. Repair activities	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-3
viii. Document acceptance or rejection of welded joint or member	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.4-3
d. Inspection Tasks Prior to Bolting			1705.2.1			AISC 360 Table N5.6-1
i. Manufacturer's certification available for fastener materials	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-1
ii. Fasteners marked in accordance with ASTM requirements		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-1

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
iii. Proper fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-1
iv. Proper bolting procedure selected for joint detail		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-1
v. Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements.		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-1
vi. Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used.		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-1
vii. Proper storage provided for bolts, nuts, washers and other fastener components.		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-1
e. Inspection Tasks During Bolting			1705.2.1			AISC 360 Table N5.6-2
i. Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required.		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-2
ii. Joint brought to the snug-tight condition prior to the pretensioning operation.		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-2
iii. Fastener component not turned by the wrench prevented from rotating.		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-2
iv. Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges.		X	1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-2
f. Inspection Tasks After Bolting			1705.2.1			AISC 360 Table N5.6-3
i. Document acceptance or rejection of bolted connections.	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N5.6-3
g. Inspection of Steel Elements of Composite Construction Prior to Concrete Placement			1705.2.1			AISC 360 Table N6.1

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
i. Placement and installation of steel deck.	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N6.1
ii. Placement and installation of steel headed stud anchors.	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N6.1
iii. Document acceptance or rejection of steel elements	X		1705.2.1	<input type="checkbox"/>		AISC 360 Table N6.1
2. Cold-Formed Steel Deck			1705.2.2	<input type="checkbox"/>		
a. Inspection or Execution Tasks prior to Deck Placement			1705.2.2			SDI QA/QC Table 1.1
i. Verify compliance of materials (deck and all deck accessories) with construction documents, including profiles, material properties, and base metal thickness.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.1
ii. Document acceptance or rejection of deck and deck accessories.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.1
b. Inspection or Execution Tasks after Deck Placement						SDI QA/QC Table 1.2
i. Verify compliance of deck and all deck accessories installation with construction documents.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.2
ii. Verify deck materials are represented by the mill certifications that comply with the construction documents.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.2
iii. Document acceptance or rejection of installation of deck and deck accessories.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.2
c. Inspection or Execution Tasks Prior to Welding			1705.2.2			SDI QA/QC Table 1.3
i. Welding Procedure Specifications (WPS) available.		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.3
ii. Manufacturer certifications for welding consumables available		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.3
iii. Material identification (type/grade).		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.3
iv. Check welding equipment.		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.3
d. Inspection or Execution Tasks during Welding			1705.2.2			SDI QA/QC Table 1.4
i. Use of qualified welders.		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.4

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
ii. Control and handling of welding consumables.		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.4
iii. Environmental conditions (wind speed, moisture, temperature).		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.4
iv. Verify WPS followed.		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.4
e. Inspection or Execution Tasks after Welding			1705.2.2			SDI QA/QC Table 1.5
i. Verify size and location of welds, including support, sidelap, and perimeter welds.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.5
ii. Welds meet visual acceptance criteria.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.5
iii. Verify repair activities.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.5
iv. Document acceptance or rejection of welds.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.5
f. Inspection or Execution Tasks prior to Mechanical Fastening			1705.2.2			SDI QA/QC Table 1.6
i. Manufacturer installation instructions available for mechanical fasteners.		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.6
ii. Proper tools available for fastener installation.		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.6
iii. Proper storage for mechanical fasteners.		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.6
g. Inspection or Execution Tasks during Mechanical Fastening			1705.2.2			SDI QA/QC Table 1.7
i. Fasteners are positioned as required.		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.7
ii. Fasteners are installed in accordance with manufacturer's instructions.		X	1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.7
h. Inspection or Execution Tasks after Mechanical Fastening			1705.2.2			SDI QA/QC Table 1.8
i. Check spacing, type, and installation of support fasteners.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.8
ii. Check spacing, type, and installation of sidelap fasteners.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.8
iii. Check spacing, type, and installation of perimeter fasteners.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.8
iv. Verify repair activities.	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.8
v. Document acceptance or rejection of mechanical	X		1705.2.2	<input type="checkbox"/>		SDI QA/QC Table 1.8

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
fasteners.						
3. Open-Web Steel Joists and Joist Girders			1705.2.3			
a. Installation of open-web steel joists and joist girders		X	Table 1705.2.3	<input type="checkbox"/>		
i. End connections – welded or bolted.		X	Table 1705.2.3	<input type="checkbox"/>		SJI Specifications listed in Section 2207.1.
ii. Bridging – Horizontal or diagonal.		X	Table 1705.2.3	<input type="checkbox"/>		
a. Standard bridging.		X	Table 1705.2.3	<input type="checkbox"/>		SJI Specifications listed in Section 2207.1.
b. Bridging that differs from the SJI specifications listed in Section 2207.1		X	Table 1705.2.3	<input type="checkbox"/>		
4. Cold-Formed Steel Trusses spanning 60 feet or Greater		X	1705.2.4	<input type="checkbox"/>		The Special Inspector shall verify that the temporary restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the approved truss submittal package.
C. Concrete Construction			1705.3			
1. Inspect reinforcement, including prestressing tendons, and verify placement.		X	Table 1705.3	<input type="checkbox"/>		ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3 IBC 1908.4
2 Reinforcing Bar Welding:		X	Table 1705.3	<input type="checkbox"/>		AWS D1.4, ACI 318: 26.6.4
a. Verify weldability of reinforcing bars other than ASTM A706:		X	Table 1705.3	<input type="checkbox"/>		AWS D1.4 ACI 318: 26.6.4
b. Inspect single pass fillet welds, maximum 5/16"; and		X	Table 1705.3	<input type="checkbox"/>		AWS D1.4 ACI 318: 26.6.4
c. Inspect all other welds	X		Table 1705.3	<input type="checkbox"/>		AWS D1.4 ACI 318: 26.6.4
3. Inspect anchors cast in concrete.		X	Table 1705.3	<input type="checkbox"/>		ACI 318: 17.8.2
4. Inspect anchors post- installed in hardened concrete members.		X	Table 1705.3	<input type="checkbox"/>		
a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X		Table 1705.3	<input type="checkbox"/>		ACI 318: 17.8.2.4
b. Mechanical anchors and adhesive anchors not defined		X	Table 1705.3	<input type="checkbox"/>		ACI 318: 17.8.2

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
in item 4a.						
5. Verify use of required design mix		X	Table 1705.3	<input type="checkbox"/>		ACI 318: Ch. 19, 26.4.3, 26.4.4 IBC 1904.1, 1904.2, 1908.2, 1908.3
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of concrete.	X		Table 1705.3	<input type="checkbox"/>		ASTM C172, ASTM C31; ACI 318: 26.4, 26.12; IBC 1908.10
7. Inspect concrete and shotcrete placement for proper application techniques.	X		Table 1705.3	<input type="checkbox"/>		ACI 318: 26.5; IBC 1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing temperature and techniques.		X	Table 1705.3	<input type="checkbox"/>		ACI 318: 26.5.3-26.5.5 IBC: 1908.9
9. Inspect Prestressed concrete for:			Table 1705.3			
a. Application of prestressing forces; and	X		Table 1705.3	<input type="checkbox"/>		ACI 318: 26.10
b. Grouting of bonded prestressing tendons	X		Table 1705.3	<input type="checkbox"/>		ACI 318: 26.10
10. Inspect erection of precast concrete members		X	Table 1705.3	<input type="checkbox"/>		ACI 318: Ch. 26.8
11. Verify in-situ concrete strength, prior to stressing tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.		X	Table 1705.3	<input type="checkbox"/>		ACI 318: 26.11.2
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.		X	Table 1705.3	<input type="checkbox"/>		
D. Masonry Construction (Check LA, LB or LC below) <input type="checkbox"/> LA = Level A Quality Assurance <input checked="" type="checkbox"/> LB = Level B Quality Assurance <input type="checkbox"/> LC = Level C Quality Assurance			1705.4			TMS 402/ACI530/ASCE5 TMS 602/ACI530.1/ASCE6
Level A Quality Assurance: Minimum Verification						

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
A1. Prior to construction, verify certificates of compliance used in masonry construction.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.1
Level B Quality Assurance: Minimum Special Inspections						
B1. Verify Compliance with approved submittals.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2: As masonry construction begins, verify that the following are in compliance:						TMS 402/ACI530/ASCE5 Table 3.1.2
B2a: Proportions of site-prepared mortar.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2b: Construction of Mortar Joints.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2c: Grade and size of prestressing tendons and anchorage.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2d: Location of reinforcement, connectors, and prestressing tendons and anchorage.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2e: Prestressing technique.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2f: Properties of thin bed mortar for AAC masonry.	X	X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2 Continuous inspection required for the first 5000sf of AAC Masonry, Periodic inspection is required after the first 5000sf of AAC masonry.
B3. Prior to grouting, verify that the following are in compliance:		X				TMS 402/ACI530/ASCE5 Table 3.1.2
B3a: Grout space.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B3b: Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorage.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B3c: Placement of reinforcement, connectors, and prestressing tendons and anchorage.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B3d: Proportions of site-prepared grout for bonded tendons.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B3e: Construction of mortar joints.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
B4: Verify during construction:		X				TMS 402/ACI530/ASCE5 Table 3.1.2
B4a: Size and location of structural elements.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4b: Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4c: Welding of reinforcement.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4d: Preparation, construction, and protection of masonry during cold weather (temperature below 40dF) or hot weather (temperature above 90dF)		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4e: Application and measurement of prestressing force.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4f: Placement of grout and prestressing grout for bonded tendons is in compliance.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4g: Placement of AAC masonry units and construction of thin-bed mortar joints.	X	X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2 Continuous inspection required for the first 5000sf of AAC Masonry, Periodic inspection is required after the first 5000sf of AAC masonry.
B5: Observe preparation of grout specimens, mortar specimens, and/or prisms.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
Minimum Tests						
B6: Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Specification Article 1.5B1.b.3 for self-consolidating grout.				<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B7: Verification of f'_m and f'_{aac} in accordance with Specification Article 1.4B prior to construction, except where specifically exempted by this Code.				<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
Level C Quality Assurance: Minimum Special						

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
Inspections						
C1. Verify compliance with the approved submittals.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2. Verify that the following are in compliance:						TMS 402/ACI530/ASCE5 Table 3.1.3
C2a. Proportions of site mixed mortar, grout and prestressing grout for bonded tendons.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2b. Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2c. Placement of masonry units and construction of mortar joints.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2d. Placement of reinforcement, connectors, and prestressing tendons and anchorages.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2e. Grout spacing prior to grouting.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2f. Placement of grout and prestressing grout for bonded tendons.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2g. Size and location of structural elements.		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2h. Type, size, and location of anchors including other details of anchorage of masonry to structural members, frames, or other construction.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2i. Welding of reinforcement.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2j. Preparation, construction, and protection of masonry during cold weather (temperature below 40dF) or hot weather (temperature above 90dF).		X		<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2k. Application and measurement of prestressing force.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2l. Placement of AAC masonry units and construction of thin-bed mortar joints.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2m. Properties of thin-bed mortar for AAC masonry.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
C3. Observe preparation of grout specimens, mortar specimens, and/or prisms.	X			<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
Minimum Tests						
D1. Verification of f'm and f' AAC in accordance with Specification Article 1.4B prior to construction and for every 5,000sf during construction.				<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
D2. Verification of proportions of materials in premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout, as delivered to the project site.				<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
D3. Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Specification Article 1.5B.1.b.3 for self-consolidating grout.				<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
E. Wood Construction			1705.5			
1. High Load Diaphragms		X	1705.5.1	<input type="checkbox"/>		
2. Metal Plate Connected Wood Trusses spanning 60 feet or Greater		X	1705.5.2	<input type="checkbox"/>		
F. Soils			1705.6			
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		X	Table 1705.6	<input type="checkbox"/>		
2. Verify excavations are extended to a proper depth and have reached proper material.		X	Table 1705.6	<input type="checkbox"/>		
3. Perform classification and testing of compacted fill materials.		X	Table 1705.6	<input type="checkbox"/>		
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X		Table 1705.6	<input type="checkbox"/>		
5. Prior to placement of compacted fill, inspect subgrade and verify that site		X	Table 1705.6	<input type="checkbox"/>		

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
has been prepared properly.						
G. Driven Deep Foundations			1705.7			
1. Verify element materials, sizes and lengths, comply with the requirements.	X		Table 1705.7	<input type="checkbox"/>		
2. Determine capacities of test elements and conduct additional load tests, as required.	X		Table 1705.7	<input type="checkbox"/>		
3. Inspect driving operations and maintain complete and accurate records for each elements.	X		Table 1705.7	<input type="checkbox"/>		
4. Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element.	X		Table 1705.7	<input type="checkbox"/>		
5. For steel elements, perform additional special inspections in accordance with Section 1705.2.	-	-	Table 1705.7	<input type="checkbox"/>		
6. For concrete elements and concrete-filled elements, perform tests and additional special inspections in accordance with Section 1705.3.	-	-	Table 1705.7	<input type="checkbox"/>		
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge.	-	-	Table 1705.7	<input type="checkbox"/>		
H. Cast-in-place Deep Foundations			1705.8			
1. Inspect drilling operations and maintain complete and accurate records for each element.	X		Table 1705.8	<input type="checkbox"/>		
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable),	X		Table 1705.8	<input type="checkbox"/>		

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes.						
3. For concrete elements, perform tests and additional special inspections in accordance with Section 1705.3.	-	-	Table 1705.8	<input type="checkbox"/>		
I. Helical Pile Foundations	X		1705.9			
J. Fabricated Items			1704.2.5 1705.10			Where fabrication of structural, load-bearing, or lateral load resisting members or assemblies is being conducted on the premises of a fabricators shop
1. Structural Steel		X		<input type="checkbox"/>		
2. Steel Joists		X		<input type="checkbox"/>		
3. Precast Concrete		X		<input type="checkbox"/>		
4. Wood Construction		X		<input type="checkbox"/>		
K. Special Inspections for Wind Resistance			1705.11			RDP to identify the main windforce-resisting systems and wind-resisting components that are subject to special inspection per BCNYS Section 1704.3.3.
1. Structural Wood	X	X	1705.11.1	<input type="checkbox"/>		Inspection frequency varies depending on element inspection type.
2. Cold Formed steel light framed Construction		X	1705.11.2	<input type="checkbox"/>		
3. Wind-resisting Components		X	1705.11.3	<input type="checkbox"/>		
L. Special Inspections for Seismic Resistance			1705.12			RDP to identify the designated seismic systems and seismic force-resisting systems that are subject to special inspection per BCNYS Section 1704.3.2.
1. Structural Steel		X	1705.12.1	<input type="checkbox"/>		AISC 341 Section J
2. Structural Wood	X	X	1705.12.2	<input type="checkbox"/>		Inspection frequency varies depending on element inspection type.
3. Cold Formed steel light framed Construction		X	1705.12.3	<input type="checkbox"/>		
4. Designated seismic systems	X	X	1705.12.4	<input type="checkbox"/>		ASCE 7 Section 13.2.2 Inspection frequency may vary based on project specific SDC.
5. Architectural Components		X	1705.12.5	<input type="checkbox"/>		

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
6. Plumbing, Mechanical, and Electrical Components		X	1705.12.6	<input type="checkbox"/>		
7. Storage Racks		X	1705.12.7	<input type="checkbox"/>		
8. Seismic Isolation Systems		X	1705.12.8	<input type="checkbox"/>		
9. Cold Formed steel special bolted moment frames		X	1705.12.9	<input type="checkbox"/>		
M. Testing for Seismic Resistance			1705.13			
1. Structural Steel		X	1705.13.1	<input type="checkbox"/>		
2. Nonstructural Components		X	1705.13.2	<input type="checkbox"/>		
3. Designated Seismic Systems		X	1705.13.3	<input type="checkbox"/>		
4. Seismic Isolation Systems		X	1705.13.4	<input type="checkbox"/>		
N. Sprayed Fire-Resistant Materials			1705.14			
1. Physical and visual tests		X	1705.14.1	<input type="checkbox"/>		
2. Structural Member Surface Conditions		X	1705.14.2	<input type="checkbox"/>		
3. Application		X	1705.14.3	<input type="checkbox"/>		
4. Thickness		X	1705.14.4	<input type="checkbox"/>		
5. Density		X	1705.14.5	<input type="checkbox"/>		
6. Bond Strength		X	1705.14.6	<input type="checkbox"/>		
O. Mastic and Intumescent Fire-Resistant Coatings		X	1705.15	<input type="checkbox"/>		
P. Exterior Insulation and Finish Systems (EIFS)			1705.16			
1. Exterior Insulation and Finish Systems (EIFS)		X	1705.16	<input type="checkbox"/>		
2. Water Resistive Barrier Coating		X	1705.16.1	<input type="checkbox"/>		
Q. Fire-Resistant Penetration and Joints			1705.17			
1. Penetration Firestops		X	1705.17.1	<input type="checkbox"/>		
2. Fire-resistant joint systems		X	1705.17.2	<input type="checkbox"/>		
R. Testing for Smoke Control			1705.18			
1. Testing Scope		X	1705.18.1	<input type="checkbox"/>		
2. Qualifications		X	1705.18.2	<input type="checkbox"/>		
S. Additional Special Inspections/Tests			The registered design professional of record shall identify if additional tests and inspection defined by BC Section 1705.1.1 are required and provide specific requirements below.			
1.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
2.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
3.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BCNYS)	CONTINUOUS	PERIODIC	BCNYS REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) ¹	COMMENTARY/NOTES and REFERENCE STANDARDS (by DASNY) ²
4.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
5.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
6.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
7.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
8.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
9.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		
10.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		

NOTES:

1. RDP to provide reference specification section detailing the requirements for inspections and/or tests and other clarifying notes, as necessary.
2. Commentary/Notes by DASNY are provided for information only and are not intended to provide complete details of the required tests and inspections. Refer to the Building Code of New York State for complete and detailed requirements.

GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and Individual Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Sections:
 - 1. Section 011200 – Contract Summary of Work, for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

- A. General: Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the Owner, the Design Professionals, occupants of the Project, testing agencies, and authorities having jurisdiction.
- B. Water and Sewer Service from Existing System: Water from the Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- C. Electric Power Service from Existing System: Electric power from the Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations. |

1.4 INFORMATIONAL SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- B. Erosion and Sedimentation Control Plan: Show compliance with requirements of New York State Department of Environmental Conservation Stormwater General Permit or authorities having jurisdiction, whichever is more stringent.
- C. Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage; including delivery, handling, and storage provisions for materials subject to water absorption or water damage, discarding water-damaged

GENERAL REQUIREMENTS for CONSTRUCTION

materials, protocols for mitigating water intrusion into completed Work, and replacing water damaged Work.

1. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
- D. Dust-Control and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust-control and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:
1. Locations of dust-control partitions at each phase of the work.
 2. HVAC system isolation schematic drawing.
 3. Location of proposed air filtration system discharge.
 4. Other dust-control measures.
 5. Waste management plan.

1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations and requirements of authority having jurisdiction for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in ADA-ABA Accessibility Guidelines and ANSI A117.1.

1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before the Owner's acceptance, regardless of previously assigned responsibilities. Temporary use of permanent facilities during construction may be allowed at the sole discretion of the Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Portable Chain-Link Fencing: Minimum 0.148-inch thick (#9 gauge), galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8-inch OD line posts and 2-7/8-inch OD corner and pull posts, with 1-5/8-inch OD top and bottom rails. Provide galvanized steel bases for supporting posts.

GENERAL REQUIREMENTS for CONSTRUCTION

- B. Polyethylene Sheet (Interior Building Work): Reinforced, fire-resistive sheet, 10 mils minimum thickness, with flame-spread rating of 15 or less per ASTM E 84.
- C. Dust Control Adhesive-Surface Walk-off Mats (Interior Building Work): Provide mats minimum 36 by 60 inches. |

2.2 TEMPORARY FACILITIES

- A. |Owner's-Use Field Office: Not Applicable to this Project.
- B. Storage and Fabrication Sheds: Provide portable steel storage containers (CONEX Containers), as needed for project materials. Temporary storage containers are to be furnished and equipped to accommodate materials and equipment for construction operations. These storage containers are to be located at the designated staging area, unless otherwise coordinated with the Owner's Representative.
 - 1. Store combustible materials apart from building. |

2.3 EQUIPMENT – Not Applicable to this Project.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, the Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. |Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
 - 1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction. Obtain all required permits.
- C. Water Service: Connect to the Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to the Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

GENERAL REQUIREMENTS for CONSTRUCTION

- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities. Note: Use of the Owner's existing toilet facilities is not permitted.
- E. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- F. Isolation of Work Areas in Occupied Facilities: For work performed inside the building: prevent dust, fumes, and odors from entering occupied areas.
 - 1. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust containment devices.
 - 2. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- G. Electric Power Service: Connect to the Owner's existing electric power service. Maintain equipment in a condition acceptable to the Owner. Obtain all required permits.
- H. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
 - 2. Install lighting for the Project identification sign. |

3.3 SUPPORT FACILITIES INSTALLATION

- A. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
 - 1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
 - 2. Prepare subgrade and install subbase and base for temporary roads and paved areas specified in Individual Specification Sections.
 - 3. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course.
- B. Traffic Controls: Comply with requirements of authorities having jurisdiction.
 - 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- C. Parking: Provide temporary parking areas for construction personnel.

GENERAL REQUIREMENTS for CONSTRUCTION

- D. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain the Project site, excavations, and construction free of water.
 - 1. Dispose of rainwater in a lawful manner that will not result in flooding the Project or adjoining properties nor endanger permanent Work or temporary facilities.
 - 2. Remove snow and ice as required to minimize accumulations.
- E. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
 - 1. Identification Signs: Provide Project identification signs as specified in the Contract Documents.
 - 2. Temporary Signs: Provide other signs as required to inform public and individuals seeking entrance to the Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
 - 3. Maintain and touchup signs so they are legible at all times.
- F. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction.
- G. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
 - 1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- H. Temporary Elevator Use: Use of elevators is not permitted.
- I. Existing Elevator Use: Not Applicable to this Project.
- J. Existing Stair Usage: Not Applicable to this Project.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- B. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to authorities having jurisdiction.
 - 1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant- protection zones.
 - 2. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
 - 3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from the project site during the course of the project.
 - 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

GENERAL REQUIREMENTS for CONSTRUCTION

- C. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- D. Tree and Plant Protection: Install temporary fencing outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- E. Site Enclosure Fence: Before construction operations begin furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
 - 1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
 - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to the Owner.
- F. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- G. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- H. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- I. Covered Walkway: Erect protective, covered walkway for passage of individuals through or adjacent to Project site. Coordinate with entrance gates, other facilities, and obstructions. Comply with regulations of authorities having jurisdiction.
 - 1. Construct covered walkways using scaffold or shoring framing.
 - 2. Provide overhead decking, protective enclosure walls, handrails, barricades, warning signs, exit signs, lights, safe and well-drained walkways, and similar provisions for protection and safe passage.
 - 3. Paint and maintain appearance of walkway for duration of the Work.
- J. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
 - 1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.
- K. Temporary Partitions: Not Applicable to this Project.
- L. Fire Safety During Construction: Comply with all requirements identified herein as well as the more stringent requirements of the applicable codes (New York State Building and Fire Codes or New York City Building and Fire Codes).

GENERAL REQUIREMENTS for CONSTRUCTION

1. No smoking: Smoking shall be prohibited throughout the project/construction site. “No Smoking” signs shall be conspicuously posted at all entrances and throughout the site.
2. The Contractor shall designate a Fire Prevention Program Superintendent/ Fire Safety Manager who shall be responsible for all fire safety efforts until completion and acceptance of the Work described in the Contract Documents that include but are not limited to the following:
 - a. Prefire Plans. Develop in cooperation with the local Fire Chief and Fire Code Official. Any changes affecting the utilization of information contained in the plan shall result in notification to the local Fire Chief and Fire Code Official.
 - b. Training. Job site personnel shall be trained in fire safety practices and procedures and the proper use of fire protection equipment, including hand-held fire extinguishers, hose lines, fire alarm and sprinkler systems.
 - c. Fire Protection Devices. Fire protection and detection equipment shall be maintained and serviced.
 - d. Hot Work Operations. Welding, cutting, open torches, torch-applied roof system activities, and other hot work operations shall be conducted under a permit system. A fire watch and fire extinguishers shall be provided.
 - e. Impairment of Fire Protection Systems. Coordinate planned, emergency or accidental impairments of fire protection systems to include tagging of impaired systems and notification of Fire Department, Alarm Company, Building Owner/Operator, and Contractors.
 - f. Temporary Covering of Fire Protection Devices. Coverings placed on or over fire protection devices for protection from damage shall be immediately removed upon the completion of the Work in the room or area in which the devices are installed.
3. Provide readily accessible telephone service for fire calls at a location or locations approved by the Owner. Note: Utilize 911 for any emergencies. |

3.5 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture-Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
 1. Protect porous materials from water damage.
 2. Protect stored and installed material from flowing or standing water.
 3. Keep porous and organic materials from coming into prolonged contact with concrete.
 4. Remove standing water from decks.
 5. Keep deck openings covered or dammed. |

3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.

GENERAL REQUIREMENTS for CONSTRUCTION

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
1. Materials and facilities that constitute temporary facilities are property of the Contractor. The Owner reserves right to take possession of the Project identification signs.
 2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
 3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 – Contract Closeout Requirements.

END OF SECTION 015000

GENERAL REQUIREMENTS for CONSTRUCTION

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GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and Individual Specification Sections and Contractor's Submittal Schedule, apply to this section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in the Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Sections:
 - 1. Section 013300 – Submittal Procedure, for product submittals.

1.3 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work of the Contract and purchased new for the Project. The term "product" includes the terms "material," "equipment," and "system."
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Procurement Exemption Approval Product Specification: A specification in which a specific manufacturer's product is named including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes as a single source or sole source provider.

1.4 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

GENERAL REQUIREMENTS for CONSTRUCTION

1. Include data to indicate compliance with the requirements specified in "Comparable Products" from Article 5, Section 5.04 of the General Conditions.
 2. Design Professional's Action: If necessary, the Design Professional will request additional information or documentation for evaluation within one week of receipt of a comparable product request. The Design Professional will notify the Contractor through the Owner of approval or rejection of proposed comparable product request within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
 - a. Form of Approval: As specified in Section 013300 - Submittal Procedure.
 - b. Use product specified if the Design Professional does not issue a decision on use of a comparable product request within time allocated.
- B. Procurement Exemption Approval Product Specification Submittal: Comply with requirements in Section 013300 - Submittal Procedure. Show compliance with requirements.

1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If the Contractor is given option of selecting between two or more products for use on the Project, select product compatible with products previously selected, even if previously selected products were also options.
1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 2. If a dispute arises between contractors over concurrently selectable but incompatible products, the Design Professional will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
1. Schedule delivery to minimize long-term storage at the Project site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 3. Deliver products to the Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.
- C. Storage:
1. Store products to allow for inspection and measurement of quantity or counting of units.

GENERAL REQUIREMENTS for CONSTRUCTION

2. Store materials in a manner that will not endanger the Project structure.
3. Store products that are subject to damage by the elements under cover in a weather tight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store foam plastic protected from exposure to sunlight, except to extent necessary for period of installation and concealment.
5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
6. Protect stored products from damage and liquids from freezing.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of obligations under requirements of the Contract Documents.
 1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to the Owner.
 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for the Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 2. Refer to individual specification sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 013300 – Submittal Procedure.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and new at time of installation.
 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. The Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," the Design Professional will make selection.

GENERAL REQUIREMENTS for CONSTRUCTION

5. Descriptive, performance, and reference standard requirements in the Specifications establish characteristics of products.
6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
7. Provide products that do not contain asbestos.

B. Product Selection Procedures:

1. Product: Where Specifications include a procurement exemption approval and name a single source, sole source, manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for the Contractor's convenience will not be considered.
2. Manufacturer/Source: Where Specifications include a procurement exemption approval and name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for the Contractor's convenience will not be considered.
3. Products: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
4. Manufacturers: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.

C. Visual Matching Specification: Where Specifications require "match sample", provide a product that complies with requirements and matches sample. The Owner's decision will be final on whether a proposed product matches.

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.

D. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's full range", select a product that complies with requirements. The Design Professional will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

A. Conditions for Consideration: The Design Professional will consider the Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, the Design Professional may return requests without action, except to record noncompliance with these requirements:

1. Action Submittal shall be provided in accordance with Submittal Procedures within 60 days after Notice to Proceed.

GENERAL REQUIREMENTS for CONSTRUCTION

2. Evidence that the proposed product does not require revisions to the Contract Documents that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 3. Detailed comparison of qualities of proposed product with those named in the Specifications, including attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 4. Evidence that proposed product provides specified warranty.
 5. List of similar installations for completed projects with project names and addresses and names and addresses of design professionals and owners, if requested.
 6. Samples, if requested.
- B. Comparable Products Costs: Any costs savings to an approved Comparable Product identified and realized by the Contractor shall be shared equal between the Owner (50%) and Contractor (50%).

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

GENERAL REQUIREMENTS for CONSTRUCTION

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GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 017329 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and Individual Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Responsibility: Each Contractor is responsible for the cutting and patching to permit installation or performance of Work of their contract.
- C. Related Sections include the following:
 - 1. Individual Specification Sections.

1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of Work of the contract.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of Work of the contract.

1.4 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
 - 1. Extent: At each occurrence, describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 - 3. Products: List products to be used and firms or entities that will perform the Work.
 - 4. Dates: Indicate when cutting and patching will be performed.
 - 5. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.

GENERAL REQUIREMENTS for CONSTRUCTION

6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
7. Design Professional's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

1.5 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that result in increased maintenance or decreased operational life or safety.
- C. Fire Rated Elements: Do not cut and patch fire rated elements (i.e. floors, walls, roofs, shafts, etc.) in a manner that results in reducing their capacity to perform as intended or that results in decreased fire rating.
- D. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, which results in reducing their capacity to perform as intended, or that result in increased maintenance or decreased operational life or safety.
- E. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Design Professional's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- F. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including other trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

1.6 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.

GENERAL REQUIREMENTS for CONSTRUCTION

- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials, unless specified otherwise in other Sections.
- C. Fire Rated Elements: Provide firestopping products/systems specified in system design listings by approved testing agencies that conform to the construction type, penetrating item, annular space requirements and fire rating involved in each separate assembly. Refer to applicable Individual Specification Sections.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting or patching to minimize interruption to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

GENERAL REQUIREMENTS for CONSTRUCTION

- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction.
1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 3. Concrete or Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 4. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 5. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
 6. Fire Rated Elements: Install firestopping systems to comply with applicable Individual Specification Sections and firestopping manufacturer's written installation instructions and published drawings for products and applications.

GENERAL REQUIREMENTS for CONSTRUCTION

- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 017329

GENERAL REQUIREMENTS for CONSTRUCTION

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GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 017419 – CONSTRUCTION WASTE MANAGEMENT

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes requirements for Construction Waste Management (CWM), with criteria for recycling and/or salvaging demolition and construction waste generated during the project. A Construction Waste Management Plan shall be developed for approval by the Construction Manager and DASNY Project Manager. The Plan shall be implemented throughout the duration of the project, and shall be documented in accordance with the SUBMITTALS Article below.
1. CWM is included as part of the LEED building goals for the project, which are established in alignment with the DASNY Sustainability Policy for Construction, and the project goals of the Owner.
- B. Responsible parties:
1. Locations for removal bins or dumpsters shall be coordinated with DASNY's Project Manager.
 2. Each contractor shall supply a CWM plan detailing the means and methods for recycling job site waste. Following the award of contract, the Contractors shall identify a single entity to act as the construction waste manager.
 3. All Contractors will receive and sign-off on the CWM plan. They will be responsible for adherence to the plan through management of their work on-site and the waste generated under their contract.
 - a. Sign-off and adherence to the plan applies even when a separate bid package is established for the CWM.
- C. Resources
1. NY CD Resource Center
727 East Washington Street
Syracuse, New York 13210
Bgriffin@syracusecoe.org (315) 443-9747

Initiated with support from Empire State Development, The NY CD Resource Center supports and promotes the growth of C&D recycling and building materials reuse (BMR) in New York State through a variety of market-development and network-building activities. Key among these activities is the provision of C&D materials management training to New York contractors and haulers, many of whom want to increase recycling at construction sites but need help getting started. The program also offers on-site assistance at construction sites.

GENERAL REQUIREMENTS for CONSTRUCTION

2. ESD Recycling Market Information Database.
<http://appcenter.nylovesbiz.com/esdrecycling/>.

1.02 PERFORMANCE REQUIREMENTS

- A. Each Contract shall prepare and submit a CWM Plan to the Design Professional for approval. The CWM Plan shall outline the provisions to be implemented to salvage for reuse or to recycle demolition and construction waste generated during the project.
 1. The end-of-project recycling rate when possible shall equal, at minimum, 75 percent for 2 LEED credits (by weight) of the total waste from construction, demolition, and land clearing activities.
 - a. Contractors are encouraged to achieve higher levels of diversion from landfill if possible, as this benefits long-term landfill management and the LEED rating system awards additional points if exemplary performance levels are reached.
- B. The approved CWM Plan shall be implemented throughout the duration of the project and documented in accordance with the SUBMITTALS Article below.
- C. The CWM Plan shall include, but not be limited to, the following components:
 1. Re-Used materials/equipment: Materials or equipment to be removed from the site or turned over to the State shall be documented.
 - a. Documentation shall include the materials turned over, weight or quantity of materials/equipment and a letter on company letterhead indicating the intended use of items.
 2. Listing of Targeted Materials: Develop a list of the waste materials from the Project that will be targeted for reuse, salvage, or recycling. The following materials shall be accounted for (materials that will not be recycled shall be indicated as such):
 - a. Cardboard, paper, packaging
 - b. Acoustical Ceiling Tiles
 - c. Clean dimensional wood, palette wood
 - d. Beverage containers
 - e. Land clearing debris
 - f. Concrete
 - g. Stone
 - h. Concrete Masonry Units (CMU)
 - i. Asphalt
 - j. Metals from banding, stud trim, ductwork, piping, rebar, roofing, windows, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze

GENERAL REQUIREMENTS for CONSTRUCTION

- k. Gypsum board
 - l. Carpet and pad
 - m. Paint
 - n. Asphalt roofing shingles if applicable for any existing building demolition
 - o. Rigid Foam
 - p. Glass
 - q. Plastics
 - r. Woods
3. **Sorting Method:** Provide a description of the proposed means of sorting and transporting the recyclable materials (whether materials will be on-site sorted and then hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site for off-site sorting).
 4. **Recycling facilities:** Provide the name of the recycling facilities(s) where materials will be sent for recycling, how it will be recycled, and the applicable fee(s).
 5. **Landfill Information:** Provide the name of the landfill(s) where trash will be disposed of and the applicable landfill tipping fee(s).
 6. **Additional Information:** Include any additional information deemed relevant to describe the scope and intent of the CWM Plan to the Design Professional.
 7. **Subcontractor Requirements:** Construction Waste Management and recycling requirements shall be incorporated into all Subcontractors' contracts.

1.03 SUBMITTALS

A. Submittal Requirements:

1. A copy of the CWM Plan, as defined in the PERFORMANCE REQUIREMENTS Article above.
2. Contractors shall submit a monthly Waste Management submission.
 - a. This submission shall include waste receipts and a completed Waste Management Form. (a sample form is included at the end of this Section identified as Exhibit "A")
3. Calculations and supporting documentation to demonstrate end-of-project recycling rates meeting the requirements of the CWM Plan. Note: These calculations and supporting documentation are required regardless of method of processing (on-site or off-site separations). Use these Solid Waste Conversion Factors only if tipping tickets are not available if the weight in each dumpster or container is not directly measured.

Solid Weight Conversion Factors

GENERAL REQUIREMENTS for CONSTRUCTION

Mixed Waste	350 lbs/cubic yard
Wood	300 lbs/cubic yard
Cardboard	100 lbs/cubic yard
Gypsum Board	500 lbs/cubic yard
Rubble	1,400 lbs/cubic yard
Steel	1,000 lbs/cubic yard

- b. Record and document the total weight (in tons) of all demolition and construction waste materials sent to the landfill, or recycled or salvaged. Monthly Waste Management Reporting Forms shall be used as the basis for determining the total amount of waste recycled or salvaged for the project. The monthly reporting forms shall specify:
- 1) The number of dumpsters or other containers of recycled or salvaged materials for that month.
 - 2) The volume (in cubic yards) of each dumpster or container of recycled or salvaged materials for that month.
 - 3) The type of recycled or salvaged material contained in each dumpster or container.
 - 4) The weight of the recycled or salvaged material in each dumpster or container. For materials not contained in the Solid Waste Conversion Factors above propose a conversion factor for review by the Design Professional.
 - 5) In addition, provide the name of the receiving facilities/companies that will be purchasing or accepting the recycled or salvaged materials. Receipts or other proof of facility reception of materials is required.
 - 6) For materials separated for recycling off-site, establish a method for tracking the weight of the recycled material. The method shall be included in the CWM Plan for the Design Professional review and approval.
- c. In the case of off-site separation, ensure the transfer station used will provide tickets with required information on delivery weights (or volume with appropriate conversions), and proof of recycling rates for reporting.
- d. Calculate the end-of-project recycling rate percentage by dividing the recycled and salvaged waste (in tons) by the total waste generated (recycled, salvaged, and landfilled waste – also in tons), and multiplying by 100.
- e. For materials turned over to others for reuse, provide documentation on company letterhead indicating the material(s), the quantity (either by weight or units), the date and the intended reuse of the product.

GENERAL REQUIREMENTS for CONSTRUCTION

PART 3 EXECUTION

3.01 IMPLEMENTATION

The following implementations of the CWM Plan will be the responsibility of either the Contractor for the Construction Work or the CWM Contractor if that work is bid out under separate contract.

- A. Containers: Provide containers and the removal of all waste, non-returned surplus materials, and rubbish from the site in accordance with the Waste Management Plan. Oversee and document the results of the Plan. The Prime Contractors shall be responsible for collecting, sorting, and depositing in designated areas, their waste, non-returned surplus materials, and rubbish, as per the CWM Plan.
- B. Instruction: Provide on-site instruction of appropriate separation, handling and recycling, salvage, reuse and return methods to be used by all parties in appropriate stages of the Project.
- C. Separation of materials: Recycling and waste bin areas are to be kept neat and clean, and clearly marked.
 - 1 On-site separation: Lay out a specific area(s) to facilitate separation of materials for potential recycling, salvage, reuse and return. Each potential material shall be collected and stored to avoid being mixed with other materials
 - 2. Off-site separation: Lay out an area for collection of mingled recyclable and waste materials, to be picked up and sorted off-site for recycling.

3.02 MEETINGS

- A. Conduct Construction Waste Management meetings. Meetings shall include Subcontractors affected by the CWM Plan. At a minimum, waste management goals and issues shall be discussed at the following meetings:
 - 1. Pre-bid meeting.
 - 2. Pre-construction meeting.
 - 3. Regular job-site meetings.
- B. Any non-compliant practices in the field will be addressed at regular job-site meetings.

3.03 MONTHLY WASTE MANAGEMENT REPORTING FORMS

- A. Monthly Waste Management Reporting Forms, as required in the SUBMITTALS Article above, shall be submitted to the Design Professional for review throughout the duration of the project.

END OF SECTION

(Project Name) (Exhibit “A”)
CONTRACTOR C&D WASTE MANAGEMENT FORM
 For Waste Generated On-Site

Company: _____

Contact: _____

Phone: _____

Material Description (Include packaging waste if applicable)	Total Weight	% Reused on-site	% Recycled off-site	% Sent to landfill	Material Recipient

Recycled Material: Material that would otherwise be destined for landfill but is diverted from the waste stream, reintroduced as material feedstock and reprocessed into new end products.

Reused Material: Materials that can be reused in their original form without any reprocessing.

GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 017700 – CONTRACT CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and Individual Specification Sections and Notice of Substantial Completion (NOSC) Form, apply to this section.

1.2 SUMMARY

- A. Section includes administrative requirements for preparation and submission of final Contract Closeout Documents, including, but not limited to, the following:

- 1. Contract Closeout Meeting
- 2. Notice of Substantial Completion (NOSC) Requirements
 - a. List of Incomplete Work Items
 - b. Contract Turnover Documents
 - 1) As-built Drawings
 - 2) As-built Specifications
 - 3) As-built Schedule
 - c. General Guarantee
 - d. Operation and Maintenance Manuals
- 3. Contract Closeout
- 4. Final Cleaning

- B. Related Sections:

- 1. General Conditions, Article 8 – Payment
- 2. General Conditions, Article 13 – Inspection and Acceptance
- 3. Section 014000 – Quality and Code Requirements
- 4. Section 017823 – Operation and Maintenance Manuals
- 5. Section 017839 – As-built Documents

1.3 CONTRACT CLOSEOUT Meeting

- A. Contract Closeout Meeting: The Owner will schedule and conduct a Contract closeout meeting, at a time convenient to the Owner and Design Professional, but no later than sixty (60) days prior to the scheduled inspection date for Substantial Completion.
 - 1. The Owner will conduct the meeting to review requirements and responsibilities related to Contract closeout.

GENERAL REQUIREMENTS for CONSTRUCTION

2. Attendees: Representatives of the Owner, testing agency, commissioning authority, Design Professional, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to make binding decisions on matters relating to the Work.
3. Agenda: Discuss items of significance that could affect or delay Contract closeout, including the following:
 - a. Status of Contract Turnover Documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Requirements for submitting final operation and maintenance manual.
 - d. Requirements for Permits, Licenses and Certificates.
 - e. Preparation of Contractor's list of incomplete Work items.
 - f. Procedures for processing Application for Payment at Substantial Completion and final payment.
 - g. Submittal procedure.
 - h. Responsibility for removing temporary facilities and controls.
4. Minutes: The Owner or Design Professional will record and distribute meeting minutes.

1.4 NOTICE OF SUBSTANTIAL COMPLETION (NOSC)

- A. Substantial Completion: After the Work of the Contract is determined by the Owner, to be at Substantial Completion, the Contractor shall submit a written request to the Owner for a date of inspection. The date of Substantial Completion establishes the start of the guarantee period.
- B. Documentation: The Notice of Substantial Completion (NOSC) form shall be executed at the end of inspection documenting incomplete Work items and submission of documents in accordance with this section that includes but is not limited to:
 - a. Preparation of a list of Work to be completed and corrected, the value of Work items on the list, and completion date of each Work item.
 - b. Submittal of contract turnover documents.
 - c. Submittal of operation and maintenance manuals, testing, adjustment and balance records.
 - d. Delivery of tools, spare parts, extra materials, and similar items to location designated by the Owner. Label with manufacturer's name and model number where applicable.
 - e. Termination and removal of temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - f. Completion of final cleaning requirements.

C. SAMPLE FORM - NOTICE OF SUBSTANTIAL COMPLETION

GENERAL REQUIREMENTS for CONSTRUCTION

DORMITORY AUTHORITY – STATE OF NEW YORK

NOTICE OF SUBSTANTIAL COMPLETION

INSTITUTION: _____ CONTRACTOR: _____
 PROJECT TITLE: _____ CONTRACT NO: _____
 PROJECT NO: 9999 CONTRACT VALUE: _____

With exception of the list of incomplete Work and status of Contract Turnover Documents, the Dormitory Authority accepts the Work of the Contract Documents as Substantial Completion on (date) _____, in accordance with the General Conditions. This date also constitutes start of the guarantee period.

ITEM	LIST OF INCOMPLETE WORK	SCHEDULED COMPLETION DATE
1.		
2.		
3.		
4.		
5.		
6.		

NOTE: Attach additional pages if necessary.

STATUS of CONTRACT TURNOVER DOCUMENTS:

	PROVIDED YES	DUE DATE	Not Applicable
• As-built drawings & specifications transmitted to Design Professional	<input type="checkbox"/>		<input type="checkbox"/>
• Certified As-built schedule transmitted to Owner	<input type="checkbox"/>		<input type="checkbox"/>
• Sustainable documentation submitted to Owner	<input type="checkbox"/>		<input type="checkbox"/>
• Permits, licenses and certificates submitted to Authority having jurisdiction	<input type="checkbox"/>		<input type="checkbox"/>
• Hazard waste documentation approved by Owner	<input type="checkbox"/>		<input type="checkbox"/>
• Operation and maintenance manual submitted to Owner in final form	<input type="checkbox"/>		<input type="checkbox"/>
• Spare products stock stored on site per Owner's direction	<input type="checkbox"/>		<input type="checkbox"/>
• Identify any other Contract specific turnover document	<input type="checkbox"/>		<input type="checkbox"/>
• Identify any other Contract specific turnover document	<input type="checkbox"/>		<input type="checkbox"/>
• Final cleaning	<input type="checkbox"/>		<input type="checkbox"/>

Acknowledged by the Contractor (signature & title)	Email Address	Date
Recommended by the Design Professional (signature & title)	Email Address	Date
Recommended by the Project Manager (signature)		Date
Approved by the Director/Chief (signature)		Date

Distribution by PM:
 Contractor
 Design Professional
 Facility Representative

Distribution by PA:
 Code Compliance Unit
 Risk Management
 Procurement Contract File (original)

GENERAL REQUIREMENTS for CONSTRUCTION

1.5 LIST OF INCOMPLETE ITEMS

- A. Organization of List: Submit list of incomplete items in *EXCEL* spreadsheet electronic format. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 2. Include the following information at the top of each page:
 - a. Project name & number.
 - b. Date.
 - c. Name of Contractor & Contract number.
 - d. Page number.
- B. Reinspection: Submit a written request for reinspection. On receipt of request, the Owner will either proceed with inspection or notify the Contractor of unfulfilled requirements. After inspection, the Owner will notify the Contractor of items, either on the Contractor's list or additional items identified, that must be completed or corrected.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis to proceed with commencement of Contract Closeout Documents.

1.6 CONTRACT TURNOVER DOCUMENTS

- A. Procedure: Contract turnover documents shall be transmitted to the Owner or if stated to the Design Professional, fifteen (15) days prior to requesting inspection date for Substantial Completion.
- B. As-built Drawings: Transmit one paper copy set of marked-up As-built Drawings to the Design Professional, with copy of transmittal to Owner. Print each Drawing, whether or not changes and additional information were recorded.
- C. As-built Specifications: Transmit one paper copy set of marked-up as-built specifications, including addenda and contract modifications to the Design Professional, with copy of transmittal to Owner.
- D. As-built Schedule: Submit one electronic (PDF) copy, certified by the Contractor, of the schedule that reflects the exact manner in which the project was actually constructed, to the Owner.
- E. Permits, Licenses and Certificates Documents: Submit one copy of original permits, licenses, certifications, inspection reports, material certificates/affidavits, approvals, and related documents required by authorities having jurisdiction to obtain Letter of Completion, Certificate of Occupancy, or Code Compliance Certificate. Coordinate and respond to requirements from the Owner, NYC Department of Buildings, or Municipality and all other authorities having jurisdiction for issuance of approval/documents required for the Owner use and occupancy.

GENERAL REQUIREMENTS for CONSTRUCTION

1. Cooperate and help coordinate with agency testing materials as specified in Section 014000 – Quality and Code Requirements. Testing Agency is required to submit final report of special inspections.
- F. Miscellaneous Record Submittals: Refer to Individual Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit one electronic (PDF) copy of each submittal.
- G. Reports: Submit written report indicating items incorporated in Contract Documents concurrent with progress of the Work, including modifications, concealed conditions, field changes, product selections, and other notations incorporated.
- 1.7 GUARANTEE
- A. General Guarantee: Comply with General Conditions, Article 13 – Inspection and Acceptance. The date established on the Notice of Substantial Completion form constitutes commencement of the Guarantee period.
- 1.8 OPERATION AND MAINTENANCE MANUALS
- A. Final Manuals Submittal: Submit an electronic copy of a compiled set of complete Operation and Maintenance Manuals in final form as indicated in Section 017823 – Operation and Maintenance Manuals, to the Owner fifteen (15) days prior to requesting date of inspection for Substantial Completion.
- 1.9 CONTRACT CLOSEOUT (same as final application for payment)
- A. Contract Compliance: The Contractor shall comply with the requirements of General Conditions, Section 10.08 – Limitations on Actions.
- B. Preliminary Procedure: All Work and Extra Work of the Contract and requirements of this section must be complete and approved prior to commencement of Contract closeout.
1. The Contractor shall request and submit to the Owner a final Contractor’s Pencil Copy billing request that will formulate the final Application for Payment.
 2. The Contractor shall provide outstanding documentation to the Owner in accordance with General Conditions, Article 20 – Opportunity Programs.
- C. Procedures: Upon the Owner’s approval of the Contractor’s Pencil Copy billing request, Contract closeout documents will be provided to the Contractor. The Contractor shall complete each document and submit all documents with original signature & notary as indicated on forms, the following:
1. Final Application for Payment that includes remaining Retainage.
 2. Final Compliance Report.
 3. Contractor and Subcontractor Certifications Form.
 4. Contractor’s Certified Payroll Form.
 5. Release Form -- Final Payment to Contractor.

GENERAL REQUIREMENTS for CONSTRUCTION

6. Consent of Surety -- Final Payment to Contractor, with power of attorney.
- D. Payroll Forms: The Contractor and all Sub-contractors to the Contractor shall submit original copies of the Contractor and Subcontractor Certifications Form and Contractor's Certified Payroll Form.

PART 2 - PRODUCTS

2.1 CLEANING MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 1. Use cleaning products that meet Green Seal GS-37, or if GS-37 is not applicable, use products that comply with allowable VOC levels.

PART 3 - EXECUTION

3.1 DEMOBILIZATION

- A. Deliver tools, spare parts, extra materials, and similar items to location designated by the Owner. Label with manufacturer's name and model number where applicable.
- B. Make final changeover of permanent locks and deliver keys to the Owner. Advise the Owner's personnel of changeover.
- C. Terminate and remove temporary facilities from the Project site, along with mockups, construction tools, and similar elements.

3.2 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for contract turnover document purposes. Post changes and modifications to contract turnover documents as they occur; do not wait until the end of the Project.
- B. Maintenance of Turnover Documents and Samples: Store turnover documents and Samples in the field office apart from the Contract Documents used for construction. Contract turnover documents shall not be used for construction purposes. Maintain turnover documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to contract turnover documents for the Owner's reference during normal working hours during performance of Contract.

GENERAL REQUIREMENTS for CONSTRUCTION

3.3 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations as applies to Work of the contract.
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.
 - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - h. Sweep concrete floors broom clean in unoccupied spaces.
 - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain. Replace if soil or stains remain after shampooing.
 - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - k. Remove labels that are not permanent.
 - l. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates.
 - m. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - n. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
 - o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.

GENERAL REQUIREMENTS for CONSTRUCTION

- p. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - q. Leave Project clean and ready for occupancy.
- C. Construction Waste Disposal: Comply with waste disposal requirements in all other applicable sections.

END OF SECTION 017800

GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 017823 - OPERATION AND MAINTENANCE MANUALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and Individual Specification Sections and Contractor's Submission Schedule, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance manual for systems, subsystems, and equipment.
 - 2. Product maintenance data.
 - 3. Systems and equipment maintenance data.
- B. Related Sections:
 - 1. Section 013300 – Submittal Procedures
 - 2. Section 017700 – Contract Closeout Requirements

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

- A. Required Manuals: see Section 017700 – Contract Closeout Requirements for additional requirements.
- B. Format: Submit operations and maintenance manuals in the following format:
 - 1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to the Design Professional.
 - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
 - b. Enable inserted reviewer comments on draft submittals.
- C.

GENERAL REQUIREMENTS for CONSTRUCTION

PART 2 - PRODUCTS

2.1 REQUIREMENTS FOR OPERATION, AND MAINTENANCE MANUALS

- A. Organization: Organize the manual into separate sections by CSI number based on the table of contents of the project manual, for each system and subsystem, and a separate section for each piece of equipment not part of a system. The manual shall contain the following materials, in the order listed:
1. Title page.
 2. Table of contents.
 3. Manual contents:
 - a. Operation data.
 - b. Product maintenance data.
 - c. Systems and equipment data
- B. Title Page: Include the following information:
1. Subject matter included in manual.
 2. Name and address of Project.
 3. Name and address of Owner.
 4. Date of submittal.
 5. Name and contact information for Contractor.
 6. Name and contact information for Construction Manager.
 7. Name and contact information for Design Professional.
 8. Name and contact information for Commissioning Agent.
 9. Names and contact information for major consultants to the Design Professional that designed the systems contained in the manuals.
 10. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
1. If operation or maintenance documentation requires more than one media volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents by CSI Section number and then by system, subsystem, and equipment. .
- E. Manuals, Electronic Copy: Submit electronic (PDF) copy of the manual, to the Design Professional, concurrent with Action Submittal.

2.2 OPERATION DATA

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Section and the following information:

GENERAL REQUIREMENTS for CONSTRUCTION

1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
2. Operating standards.
3. Operating procedures.
4. Operating logs.
5. Wiring diagrams.
6. Control diagrams.
7. Piped system diagrams.
8. Precautions against improper use.
9. License requirements including inspection and renewal dates.

B. Descriptions: Include the following:

1. Product name and model number. Use designations for products indicated on Contract Documents.
2. Manufacturer's name.
3. Equipment identification with serial number of each component.
4. Equipment function.
5. Operating characteristics.
6. Limiting conditions.
7. Performance curves.
8. Engineering data and tests.
9. Complete nomenclature and number of replacement parts.

C. Operating Procedures: Include the following, as applicable:

1. Startup procedures.
2. Equipment or system break-in procedures.
3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Seasonal and weekend operating instructions.
8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.3 PRODUCT MAINTENANCE DATA

A. Content: Organize data into a separate section, within the O & M Manual, for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

B. Source Information: List each product included in section identified by product name and arranged to match manual's table of contents. For each product, list name, address, and

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telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
 - 1. Inspection procedures.
 - 2. Types of cleaning agents to be used and methods of cleaning.
 - 3. List of cleaning agents and methods of cleaning detrimental to product.
 - 4. Schedule for routine cleaning and maintenance.
 - 5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Guarantees: Include copies of warranties and guarantees lists of circumstances and conditions that would affect validity of warranties.
 - 1. Include procedures to follow and required notifications for warranty claims.

2.4 SYSTEMS AND EQUIPMENT MAINTENANCE DATA

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in a separate section within the O & M Manual identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard maintenance instructions and bulletins.
 - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3. Identification and nomenclature of parts and components.
 - 4. List of items recommended to be stocked as spare parts.

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- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5. Aligning, adjusting, and checking instructions.
 - 6. Demonstration and training video recording, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
 - 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 - 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Warranties: Include copies of warranties and lists of circumstances and conditions that would affect validity of warranties.
 - 1. Include procedures to follow and required notifications for warranty claims.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation shall be provided for review, concurrent, with Action Submittal specified in Individual Specification Section.
 - 1. Correct or modify the manual to comply with the Design Professional's and Commissioning Authority's comments. Submit copies of each corrected manual within 15 days of receipt of Design Professional's and Commissioning Authority's comments and prior to commencing demonstration and training.
- B. Product Maintenance Data: Assemble a complete set of maintenance data, in a separate section, within the O & M Manual, indicating care and maintenance of each product, material, and finish incorporated into the Work.
- C. Operation and Maintenance Data: Assemble a complete set of operation and maintenance data, in a separate section, within the O & M Manual, indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.

GENERAL REQUIREMENTS for CONSTRUCTION

1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
 2. Prepare a separate section within the O & M Manual, for each system and subsystem, in the form of an instructional manual for use by operating personnel.
- D. Manufacturers' Data: Where manual contain manufacturers' standard printed data; include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- E. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in As-built Drawings to ensure correct illustration of completed installation.
1. Do not use original project record documents as part of operation and maintenance manuals.

END OF SECTION 017823

GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 017839 – AS BUILT DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and Individual Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for As-built documents, including the following:
 - 1. As-built Drawings
 - 2. As-built Specifications
 - 3. As-built Schedule
 - 4. Record Product Data
 - 5. Miscellaneous record submittals
- B. Related Sections:
 - 1. Section 013200 – Construction Progress Documentation
 - 2. Section 013300 – Submittal Procedure; Required Submittal List
 - 3. Section 017700 – Contract Closeout Requirements
 - 4. Section 017823 – Operation and Maintenance Manuals

1.3 CLOSEOUT SUBMITTALS

- A. Required Documents: Section 017700 – Contract Closeout Requirements, describes administrative requirements for submission, number and type of copies required for contract closeout requirements.

PART 2 - PRODUCTS

2.1 AS-BUILT DRAWINGS

- A. As-built Drawings: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings onsite. Review As-built Drawings and shop drawings monthly with the Owner, for approval.
 - 1. Preparation: Daily mark As-built Drawings to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up As-built Drawings.

GENERAL REQUIREMENTS for CONSTRUCTION

- a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
2. Content: Types of items requiring marking include, but are not limited to, the following:
- a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Revisions to routing of piping and conduits.
 - d. Revisions to electrical circuitry.
 - e. Actual equipment locations.
 - f. Duct size and routing.
 - g. Locations of concealed internal utilities.
 - h. Changes made by Change Order.
 - i. Changes made by Bulletin.
 - j. Changes made following the Owner's written orders.
 - k. Details not on the original Contract Drawings.
 - l. Field records for variable and concealed conditions.
 - m. Record information on the Work that is shown only schematically.
3. Mark the Contract Drawings and Shop Drawings completely and accurately. Utilize personnel proficient at recording graphic information in production of marked-up as-built prints.
 4. Mark as-built sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

2.2 AS-BUILT SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 5. Note related Change Orders, record Product Data, and turnover Drawings where applicable.

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2.3 AS-BUILT SCHEDULE

- A. Final Schedule: Submit to the Owner a final schedule update. The As-built Schedule shall reflect the exact manner in which the project was actually constructed including actual start and finish dates, activities, sequences and logic.
 - 1. The Contractor shall certify the final schedule update as being a true reflection of the way the project was actually constructed.

2.4 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to the Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, As-built Specifications, and As-built Drawings where applicable.

2.5 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by Individual Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals.
 - 1. Include miscellaneous record submittals directory organized by specification section number and title, electronically linked to each item of miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Maintain Change Log: Maintain and submit written change log to the Owner, monthly for review indicating items incorporated in contract turnover documents concurrent with progress of the Work, including modifications, concealed conditions, field changes, product selections, and other notations incorporated.
- B. Recording: Maintain one copy of each submittal during the construction period for contract turnover document purposes. Post changes and modifications to contract turnover documents as they occur; do not wait until the end of the Project.
- C. Maintenance of Turnover Documents and Samples: Store turnover documents and Samples in the field office apart from the Contract Documents used for construction. Contract turnover documents are not to be used for construction purposes. Maintain turnover documents in good

GENERAL REQUIREMENTS for CONSTRUCTION

order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to contract turnover documents for the Owner's reference during normal working hours during performance of Contract.

END OF SECTION 017839

GENERAL REQUIREMENTS for CONSTRUCTION

SECTION 019113 - GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Contract Documents, including but not limited to, the Drawings and Individual Specification Sections and the Commissioning Plan, apply to this Section.

1.2 SUMMARY

- A. Section includes general, procedural, and administrative requirements that apply to implementation of commissioning.
- B. General Provisions for Commissioning:
 - 1. Selected building systems and equipment to be commissioned are identified in Division 24.
 - 2. The commissioning process shall be directed by the Commissioning Authority, provided by the Owner.
 - 3. The responsible Contractor shall act as the Commissioning Agent, and shall be responsible for executing the commissioning process as directed by the Commissioning Authority, and as defined in Division 24.
 - 4. The commissioning process is defined in Division 24 and includes responsibilities for each Commissioning Team member including the Commissioning Agent.
- C. Related Sections:
 - 1. Specification Sections referenced in Division 24, Commissioning, apply to this Section.
- D. References:
 - 1. Owner's Project Requirements (OPR), Basis of Design (BoD), and Design Intent (DI) documents.
 - 2. Dormitory Authority State of New York: Building Commissioning Guidelines – 2006 http://www.dasny.org/construc/build_comm_guide/index.php
 - 3. ASHRAE Guideline 0-2005: The Commissioning Process
 - 4. ASHRAE Guideline 1.1-2007: HVAC & R Technical Requirements for the Commissioning Process.

1.3 DEFINITIONS

- A. Basis of Design (BoD): A document prepared by the Design Professional that records how the designer has met the owner's project requirements. It includes the concepts, calculations, decisions, and product selections and how applicable regulatory requirements, standards, and guidelines have been met. The document includes descriptions and lists of individual items that support the design process.

GENERAL REQUIREMENTS for CONSTRUCTION

- B. Commissioning (Cx): A quality assurance process that documents specified systems and components are provided and tested to meet the Owner's needs and the design intent in accordance with the Contract Documents.
- C. Commissioning Agent (CA): The Contractor. For the purposes of commissioning the Contractor shall assume the role, tasks, and responsibilities of the Commissioning Agent. Note that per the Owner's Building Commissioning Guidelines, the Owner does not allow the Commissioning Authority and Commissioning Agent to be the same organization or person. The Commissioning Agent shall assign a representative with expertise and authority to act on its behalf to participate in the commissioning process.
- D. Commissioning Authority (CxA): The Professional, appointed by the Owner, to direct and coordinate the commissioning process.
- E. Commissioning Plan (Cx Plan): A document, prepared by the Commissioning Authority, defining the commissioning process including schedules, responsibilities, documentation requirements, and functional performance test requirements.
- F. Commissioning Team: Individuals and entities, as deemed appropriate by the CxA, appointed by the Owner and Contractor, having the authority to act on their behalf, explicitly organized to implement the commissioning process, through coordinated action and defined in the contract documents and the Commissioning Plan.
- G. Design Intent (DI): A document prepared by the Design Professional that summarizes design goals of the design phase.
- H. Owner's Project Requirements (OPR): A document prepared by the Design Professional that defines the functional requirements and the expectations for operation.
- I. Systems and Energy Management Manual: A composite document that expands the scope of the operation and maintenance manual by including additional information gathered by the commissioning process as required by the New York State Green Building Tax Credit, Section 638.8 (k)(2).

1.4 COMMISSIONING TEAM

- A. The Commissioning Team shall consist of, but not be limited to, the Owner, Design Professional, Commissioning Authority, Commissioning Agent, suppliers, and specialists, in accordance with the Commissioning Plan.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 019113

SECTION 024119 – SELECTIVE SITE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Attention is directed to the Contract and General Conditions and all Sections of Division 01 – General Requirements which are hereby made a part of the Specification.
- B. Examine all Drawings and all other Sections of the Specifications for requirements therein affecting the work of this Section.
- C. Coordinate work with that of all other trades affecting or affected by work of the Section. Cooperate with such trades to assure steady progress of all work under the Contract.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Protecting existing trees to remain.
 - 2. Removing existing trees.
 - 3. Methods and procedures for demolishing, salvaging, recycling and removing sitework items designated to be removed in whole or in part.
- B. Related Sections include the following:
 - 1. Division 31 Section “Erosion and Sedimentation Controls” for erosion control.
 - 2. Division 31 Section "Earth Moving" for soil materials, excavating, backfilling, and site grading.

1.3 DEFINITIONS

- A. Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, may include but not limited to: asbestos PCB's, CFC's, HCFC's poisons, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health or well being or environment if handled improperly
- B. Tree Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

1.4 MATERIAL OWNERSHIP

- A. Except for materials indicated to remain Owner's property, items and materials noted for removal shall become Contractor's property and shall be removed from Project site.

1.5 SUBMITTALS

- A. Photographs or videotape, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.
- B. Record drawings, according to Division 01 Section "Project Record Documents," identifying and accurately locating capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6 QUALITY ASSURANCE

- A. Pre-installation Conference: Conduct conference at Project site to comply with Campus Contractor Safety Program, as provided by DASNY and the New York State Office of Mental Health.

1.7 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction. Primary coordination will be with the DASNY Site Representative.
- B. Salvable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
- C. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.
- D. Do not commence tree removal and demolition operations until temporary erosion and sedimentation control measures are in place.
- E. Hazardous Materials: An Environmental Survey was performed at the Project Site. The report from this survey determined the following:
 - a. No asbestos containing materials were encountered.
 - b. Lead based paint materials encountered were outside the work area.
 - c. No exterior PCB containing materials were encountered.
 - d. Universal Wastes are present at the light bubs at the light poles, refer to Specification Section 028700.This report is on file for review.

PART 2 - PRODUCTS – Not Used

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Locate and clearly flag trees and vegetation to remain or to be relocated.
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TREE PROTECTION

- A. Erect and maintain temporary fencing around tree protection zones before starting site clearing. Remove fence when construction is complete.
 - 1. Do not store construction materials, debris, or excavated material within fenced area.
 - 2. Do not permit vehicles, equipment, or foot traffic within fenced area.
 - 3. Maintain fenced area free of weeds and trash.
- B. Do not excavate within tree protection zones, unless otherwise indicated.
- C. Where excavation for new construction is required within tree protection zones, hand clear and excavate with air spade to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible.
 - 1. Cover exposed roots with burlap and water regularly.
 - 2. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
 - 3. Coat cut faces of roots more than 1-1/2 inches in diameter with an emulsified asphalt or other approved coating formulated for use on damaged plant tissues.
 - 4. Backfill with soil as soon as possible.
- D. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by the Engineer.

3.3 UTILITIES

- A. Owner will arrange for disconnecting and sealing indicated utilities that serve existing structures before site clearing, when requested by Contractor.
 - 1. Verify that utilities have been disconnected and capped before proceeding with site clearing.
- B. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.

1. Arrange with utility companies to shut off indicated utilities.
 2. Owner will arrange to shut off indicated utilities when requested by Contractor.
- C. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
1. Notify Owner, Engineer and Owner's Representative not less than four days in advance of proposed utility interruptions.
 2. Do not proceed with utility interruptions without Engineers written permission.
- D. Excavate for and remove underground utilities indicated to be removed.

3.4 TREE AND VEGETATION REMOVAL

- A. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction.
1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 2. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
 3. Grind stumps and remove roots, obstructions, and debris extending to a depth of 18 inches below exposed subgrade.
 4. Use only hand methods for grubbing within tree protection zone.
 5. Chip removed tree branches and dispose of off-site.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches and compact each layer to a density equal to adjacent original ground.

3.5 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.
 2. Paint cut ends of steel reinforcement in concrete to remain to prevent corrosion.

3.6 DISPOSAL

- A. Disposal: Remove unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

1. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities.

END OF SECTION 024119

REMOVAL AND DISPOSAL OF UNIVERSAL WASTE

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

- A. This specification covers the removal and disposal of Universal Waste, including lamps such as fluorescent and high-intensity discharge (HID) lamps, mercury-containing equipment (MCE) such as thermostats and switches, batteries and pesticides (not PCB lighting ballasts) at the Broome DDSO Road and Parking Lot Expansion for DASNY Project # 354360.

The federal universal waste regulations are found in Title 40 of the Code of Federal Regulations (CFR) in part 273 and apply to five types of universal waste:

- Batteries
- Pesticides
- Mercury-Containing Equipment (To be recycled as per NYS DEC – see details below)
- Lamps
- Aerosol Cans (Classified as a Hazardous Waste by NYS DEC-see details below)

Universal Wastes are regulated by the United States Environmental Protection Agency (EPA) under 40 CFR Part 273 and by New York State Department of Environmental Conservation (NYS DEC) under 6 NYCRR (New York Codes, Rules and Regulations) Part 374-3. The EPA regulation identifies Universal Waste that includes MCE and aerosol cans whereas the NYS DEC regulation addresses mercury thermostats only and does not include aerosol cans. Universal Waste was expanded to include MCE by NYS DEC’s Commissioner Policy CP-39, “Mercury-Containing Equipment” promulgated May 8, 2006. This CP-39 was issued to align with EPA’s inclusion of MCE. MCE shall be recycled as per current regulations, instead of disposed as Universal Waste. NYS DEC did not include aerosol cans as Universal Waste; therefore, aerosol cans are to be disposed of as hazardous waste. Demolition and removal of materials shall be as required to support the work.

- B. The work shall include but not be limited to the removal of the following.

Building & Floor	Description of Material	Approximate Quantity (lbs/units)
Exterior (see note below)	LED Light bulbs at twenty seven (27) exterior site lights within the project limits	0.5 lbs/each
Total Quantity		14 lbs

Note: At the site lights that are scheduled for removal: The exterior LED light bulbs are to be removed and properly containerized (for disposal, recycling, or possible re-use) prior construction and demolition activities so that the potential for possible light bulb breakage and hazardous waste clean-up will be avoided.

- C. The Contractor shall be aware of all conditions of the Project and is responsible for verifying quantities and locations of all Work to be performed. Failure to do so shall not relieve the Contractor of its obligation to furnish all labor and materials necessary to perform the Work.
- D. All Work shall be performed in strict accordance with the Project Documents and all governing codes, rules, and regulations. Where conflicts occur between the Project Documents and applicable codes, rules, and regulations, the more stringent shall apply.

- E. Working hours shall be as required and approved by the Owner. Removal activities including, but not limited to, work area preparation, gross removal activities, cleaning activities, waste removal, etc. may need to be performed during ‘off-hours’ (including nights and weekends). In addition, multiple mobilizations may be required to perform the work identified in this project. The Contractor shall coordinate and schedule all Work with the facility and Owner’s representative.
- F. If suspect materials are disturbed and/or encountered, cease operations, and notify the owner/owner’s representative immediately.

1.02 SUBMITTALS

- A. Pre-Work Submittals: Within seven (7) days prior to the pre-construction conference, the Contractor shall submit an electronic copy of the documents listed below to the DASNY Project Manager, the DASNY Code Compliance Unit and the Environmental Consultant for review and Code Compliance approval prior to the commencement of activities:

Pre-work Submittals	VSQG (CESQG)	SQG	LQG
<u>Training & Certifications</u>			
a. Certificate of on-site supervisor for completion of the OSHA 40-hour Health and Safety course for handling hazardous waste and spills, including most recent refresher training.	X	X	X
b. OSHA 8-hour supervisor training for hazardous waste.	X	X	X
c. List of the employees scheduled to perform this work and certificates of workers, for successful completion of the OSHA 40-Hour Health and Safety Course for Hazardous Waste and spills, including most recent refresher training.	X	X	X
d. Valid United States Department of Transportation (49 CFR Parts 100-185) training for supervisor and all employees loading waste and maintaining on-site container storage area (CSA). This training shall include: general awareness / familiarization training; function specific training; safety training; security awareness training; and in-depth security training. Provide proof of training for these employees.	X	X	X
e. Employees managing Universal Waste must also meet the Personnel training requirements of EPA 40 CFR Section 273.36. Provide proof of training for these employees.			X
f. Employees managing Universal Waste must also meet the Personnel training requirements of EPA 40 CFR Section 273.16. Provide proof of training for these employees.	X	X	
<u>Transportation & Disposal</u>			
a. Valid Universal Waste Transporter NYS Part 364 permit for all transporters.	X	X	X
b. Valid Universal Waste Transport vehicle permit for all transporters for each State the waste is being transported through to reach the Treatment, Storage and Disposal Facility (TSDF).	X	X	X
c. Valid US DOT vehicle permit for all transporters.			X
d. Transfer Facility Permit (if used) including the name, address and EPA ID No. of the facility, contact person, and acknowledgement letter stating that the facility has the capacity and is permitted to accept the waste from the project site.	X	X	X
e. Final Disposal Facility permit including the name, address and EPA ID No. of the facility, contact person, and acknowledgement letter stating that	X	X	X

Pre-work Submittals	VSQG (CESQG)	SQG	LQG
the facility has the capacity and is permitted to accept the waste from the project site.			
f. The TSDf permit(s) must identify the waste material(s) to be received.			X
g. Draft waste profile form.	X	X	X
h. Draft waste shipment record/manifest.	X	X	X

Site-specific			
a. Safety Data Sheet (SDS) for all materials to be removed.	X	X	X
b. If the Contractor introduces any chemical into the work environment, a SDS for each chemical must be presented to the Owner's Representative for review and approval prior to use.	X	X	X
c. <u>Project Plan</u> : Provide a description of the methods, procedures and materials to be used in performing the work and handling all Universal Wastes. Also provide a schedule identifying specific work areas and duration. The schedules will be utilized to schedule facility and third-party environmental consultant requirements. Provide plans that indicate the following:			
1. Progress Schedule: Show the complete sequencing of removal activities and the sequencing of Work within each building, wing or section of building. Include dates and hours of work. Duration of waste generation and contract.	X	X	X
2. Include a sketch showing the location, size, and details of each Universal Waste generation work area, as well as location and details of the decontamination facilities. All Work Areas/containments shall be numbered sequentially.	X	X	X
3. Provide list of all waste types being generated. Include a waste disposal, segregation, and minimization plan as well as waste generation details (amount per day, per week or per quarter) in kgs or tons. Provide waste storage details (drums, containers, or dumpsters, types, with cover?).	X	X	X
4. Provide a container storage area (CSA) details, including, location (indoors or outdoors, is it being contained to prevent impact to adjoining spaces or environment?) Appropriate fire extinguisher(s) and spill kit included? Include waste transport routes from the work area to the CSA.	X	X	X
5. Type of removal activity/technique for each Work Area/containment.	X	X	X
6. The job specific plan for worker protection issues regarding personal protective equipment, the work procedures, and exposure assessment procedures.	X	X	X
7. Include in the plan, eating, drinking, and sanitary procedures, interface of trades and sequencing of Universal Waste generation.			X
8. Include site preparation and cleanup procedures.			X
9. Include occupational and environmental sampling (if any by the Contractor), frequency and duration of sampling.			X
10. Proposed location and construction of storage facilities and field office			X
11. Health and Safety Plan information for material handling and emergency procedures.			X
12. Contractor emergency evacuation plan requirements and evacuation route for the project specific areas.			X
13. Contractor, DASNY and Project team emergency contact numbers.	X	X	X
Do not start work until submittals are returned with the Owner's Representative stamp indicating that the submittal is approved for unrestricted use.	X	X	X

B. On-Site & During Construction:

1. The following submittals, documentation, and postings shall be maintained on-site by the Contractor during removal activities at a location approved by the Environmental Consultant:
 - a. Approved pre-work submittals.
 - b. Project Documents (specifications and drawings).
 - c. Applicable regulations.

- d. Updated licenses/permits and acknowledgement letters for any changes in transporter or disposal site.
 - e. For each employee, current annual medical respiratory clearance, if required
 - f. For each employee, current satisfactory respiratory fit test results, if required.
 - g. Contractor shall provide weekly update, including initial container storage dates for each container stored, an approximate estimate of amount of waste being generated during each workday, week or month that it is stored on-site. The actual weight of the waste, excluding the weight of the dumpster, shall be identified.
 - h. Completed and signed Waste Profile form(s).
 - i. List of emergency phone numbers.
 - j. Waste disposal log.
 - k. Daily Project Log.
 - l. Copy of completed Universal Waste manifest(s)/shipment record(s) including legible transporter and disposal facility information, dates and times of waste shipment departures / arrivals, and signatures, for each load of waste, within 35 days of waste being removed from site.
2. The following documentation shall be maintained on-site by the Environmental Consultant during removal activities:
 - a. Valid Environmental Consultant personnel OSHA, RCRA, and DOT training certifications.
 - b. Consultant Daily Log.
 - c. Listing of all visual inspections with the date of inspection and the date of signoff.
 - d. Environmental Survey Report.
 - e. All applicable waste documentation, including but not limited to Universal Waste Manifest/shipment records, waste profiles, and disposal facility letter(s).

C. Close-out:

1. Within 30 days after project completion, the **Contractor** shall submit one electronic copy of the closeout-out submittal (requirements listed below) to DASNY Code Compliance and one copy to the Environmental Consultant for review and approval prior to the Contractor's final payment. Once DASNY Code Compliance approves the complete electronic close-out submittal, the Contractor shall provide three (3) hardcopy sets of the approved close-out documents (double-sided and bound) to DASNY Project Management, including one set to be distributed to the facility. DASNY Project Management shall provide the Facility with one copy of the approved closeout submittals.
 - a. **Fully Executed Copies** of all completed waste disposal manifests, Land Disposal Restriction (LDR) forms (if applicable), recycling certificates, disposal facility letter(s), disposal logs and other pertinent disposal documents shall be sent to DASNY Code Compliance including legible transporter and disposal facility information, departure / arrival times and dates, and signatures. Original waste manifests shall be sent to the Owner or disposal facility state, as applicable.
 - b. Daily progress log. Contractor personnel training documentation in accordance with 1.02 A. above.
 - c. If TSDF transfer facility is utilized, completed waste manifest from final destination must also be provided. Final destination of waste must be within the United States.
 - d. Valid Universal Waste Transporter NYS Part 364 permit for all transporters.
 - e. Valid Universal Waste Transport vehicle permit for all transporters for each state the waste is being transported through to reach the Treatment, Storage and Disposal Facility (TSDF).
 - f. Valid US DOT vehicle permit for Transporters, if applicable (LQG).
 - g. Transfer Facility Permit (if used) including the name, address and EPA ID No. of the facility, and contact person.
 - h. Final Disposal Facility permit including the name, address and EPA ID No. of the facility, and contact person.
 - i. Completed and signed Waste Profile form.

2. Within 30 days of the completion of each removal phase, the **Environmental Consultant** shall submit one electronic copy of the documents listed below to DASNY code compliance for review and approval prior to Environmental Consultant's final payment. Once DASNY Code Compliance approves the complete electronic close-out submittal, the Environmental Consultant shall provide three sets of the approved close-out documents (double-sided and bound) to DASNY Project Management, including one set to be distributed to the facility.
 - a. Upon completion of the Project, the Environmental Consultant shall certify to the Owner, in writing, that the work is complete and acceptable in an Executive Summary of the work.
 - b. The Environmental Consultant shall review and approve or disapprove all necessary guarantees, certificates of compliance, and all other close-out documentation, which the Contractor is required to submit.
 - c. The Environmental Consultant shall provide to the Owner the final Project data binder to include:
 - 1) All daily logs.
 - 2) Summary of all visual inspections with the date of inspection, if applicable.
 - 3) Any applicable sampling logs, results, chain of custody forms, and sample location plans.
 - 4) All applicable waste documentation, including but not limited to Universal Waste manifests, completed and signed waste profile forms, LDR forms, and disposal facility letter(s).
 - 5) All pertinent correspondence related to the Project including but not limited to supplemental inspection findings performed during construction, etc.
- D. Universal Waste Project Submittals shall be submitted as separate packages, not included with any other environmental or hazardous waste submittals.

1.03 DEFINITIONS

- A. Large Quantity Handler (LQH) of Universal Waste shall be a waste handler who accumulates 5,000 kilograms or more of Universal Waste at any time. This designation as a large quantity handler of Universal Waste is retained through the end of the calendar year in which 5,000 kilograms (11,000 pounds) or more total of Universal Waste is accumulated. The LQH shall notify the EPA, acquire or coordinate with a facility regarding an EPA identification number, and provide records for each shipment. The LQH shall ensure all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.
- B. Small Quantity Handler of Universal Waste (SQH) shall be a waste handler who does not accumulate 5,000 kilograms (11,000 pounds) or more of total Universal Waste (batteries, pesticides, MCE, or lamps, calculated collectively) at any time.
- C. Destination Facility shall be a facility that can legally accept Universal Waste from off-site so that the Universal Waste can be treated, disposed, or recycled in accordance with regulatory requirements.
- D. Universal Waste Transporter shall be anyone who transports Universal Waste. In New York, Universal Waste Transporters that transport greater than 500 pounds of Universal Waste in a single shipment must be a permitted Universal Waste Transporter pursuant to Federal and State regulations. Proper notification with the receiving handler agreeing to receive the shipment is required by the Universal Waste Transporter.
- E. Universal Waste consists of the following discarded materials, as identified in 40 CFR Part 273 and 6 NYCRR 374-3: Fluorescent light and high-intensity discharge (HID) lamps, MCE, batteries,

and pesticides. NYS DEC CP-39 expanded thermostats to MCE as discussed in section 1.01 above. Removed or replaced MCE must be delivered to a designated mercury collection site as per current NYC DEC regulations. Disposal of MCE in a solid waste management facility is prohibited. PCB ballasts/capacitors from light fixtures shall not be treated as Universal Waste; they shall be handled and disposed of as hazardous waste. See the Hazardous Waste Disposal Specification for these wastes.

1.04 PROJECT SUPERVISOR

- A. The Contractor shall designate a full-time Project Supervisor who shall meet the following qualifications:
 - 1. The Project Supervisor shall be trained in hazardous waste removal/generation procedures and hazardous waste management in NYS, via a 40-hour HAZWOPER and 8-hour Supervisor training course, as well as appropriate RCRA and DOT training.
 - 2. The Project Supervisor shall have a minimum of one year experience as a supervisor.
 - 3. The Project Supervisor must be able to read and write English fluently, as well as communicate in the primary language of the Workers.
- B. If the Project Supervisor is not on-site at any time whatsoever, all Work shall be stopped. The Project Supervisor shall remain on-site until the Project is complete. The Project Supervisor cannot be removed from the Project without the written consent of the Owner and the Environmental Consultant. The Project Supervisor shall be removed from the Project if so requested by the Owner or DASNY.
- C. The Project Supervisor shall maintain a bound Daily Project Log that includes the Waste Disposal Log required by section 4.03 of this specification.
- D. The Project Supervisor shall be responsible for the performance of the Work and shall represent the Contractor in all respects at the Project site. The Supervisor shall be the Contractor primary point of contact for the Environmental Consultant.
- E. As required by applicable regulations, prior to assignment to Universal Waste work, instruct each employee with regard to the hazards of the generated waste, safety and health precautions, and the use and requirements of protective clothing and equipment, as well as the Contractor emergency action plan.

PART 2 - PRODUCTS

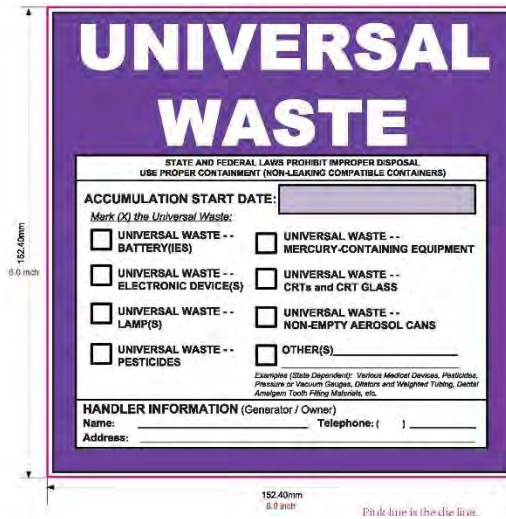
2.01 PROTECTIVE CLOTHING

- A. Provide personnel utilized during the Project with disposable protective whole body clothing, head coverings, and foot coverings, as applicable. Provide appropriate disposable gloves, suitable to prevent skin contact, to protect hands.
- B. Eye protection and hard hats shall be provided and made available for all personnel entering any Work Area.

2.02 SIGNS AND LABELS, CONTAINERS

- A. Provide warning signs and barrier tapes at all approaches to Universal Waste generation Work Areas. Locate signs at such distance that personnel may read the sign and take the necessary protective steps required before entering the area.

- B. Universal waste containers must be marked with the words that clearly indicate the type of waste in the container, for example, “**Universal waste – Batteries**” or “**Universal waste – Bulbs**” as per 40 CFR 273.13 and 273.34;



2.03 DAILY PROJECT LOG

- A. Provide a Daily Project Log. The log shall contain on title page the DASNY Project name and number; name, address and phone number of Owner; name, address and phone number of Environmental Consultant; name, address and phone number of Contractor; and emergency numbers including, but not limited to, local Fire/Rescue department.
- B. All entries into the log shall be made in non-washable, permanent ink and such pen shall be strung to or otherwise attached to the log to prevent removal from the log-in area. Under no circumstances shall pencil entries be permitted.
- C. The Project Supervisor shall document all Work performed daily and note all inspections.

2.04 SCAFFOLDING AND LADDERS

- A. Provide all scaffolding and/or staging as necessary to accomplish the Work of this Contract. Scaffolding may be of suspension type or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of all scaffolding and ladders shall comply with all applicable OSHA construction industry standards.
- B. Provide scaffolding and ladders as required by the Environmental Consultant for the purposes of performing required inspections.

2.05 SHIPPING CONTAINERS AND PACKAGING

- A. Provide packaging in accordance with 49 CFR 173 Packaging Group 9, such as 30- or 55-gallon capacity fiber, plastic, or metal drums, Gaylord Boxes or other Intermediate Bulk Containers (IBCs), or non-siftable bulk containers. Affix Universal Waste caution labels on lids of drums, and opposite sides of drums or bulk containers, as well as the ends of bulk containers. Recovery or salvage drums must be acceptable for disposal of Universal Waste. Prior approval of drums is required. Drums or containers must meet the required OSHA, EPA (40 CFR Parts 260-264, 273

and 300), and DOT Regulations (49 CFR Parts 171-180). Use of damaged containers shall not be allowed.

2.06 EQUIPMENT AND MATERIALS

- A. All dry vacuuming performed under this contract shall be performed with HEPA filter equipped industrial vacuums conforming to ANSI Z9.2.
- B. All polyethylene (plastic) sheeting used on the Project (including but not limited to sheeting used for critical and isolation barriers, fixed objects, walls, floors, ceilings, waste container) shall be at least 6 mil clear fire retardant sheeting.
- C. Absorbent Material: Clay, soil or any commercially available absorbent used for the purpose of absorbing hazardous or potentially hazardous materials.

PART 3 EXECUTION

3.01 GENERATING UNIVERSAL WASTE

- A. Employee training shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal operations and emergencies, as well as to the type of waste they are handling.
- B. MCE shall be segregated from other Universal Wastes to allow for required recycling.
- C. Battery Labels: The container(s) holding intact batteries shall be labeled or marked as “Universal Waste – Battery(ies)”, “Waste Battery(ies)”, or “Used Battery(ies)”.
- D. Lamp Labels: The container(s) holding lamps shall be labeled or marked as “Universal Waste – Lamp(s)”, “Waste Lamp(s)”, or “Used Lamp(s)”.
- E. MCE Labels: The container(s) holding MCE shall be labeled or marked as “Universal Waste – Mercury-Containing Equipment”, “Waste - Mercury-Containing Equipment”, or “Used Mercury-Containing Equipment”.
- F. Mercury Thermostat Labels: The container(s) holding mercury thermostats only may be labeled or marked as “Universal Waste – Mercury Thermostat(s)”, “Waste Mercury Thermostat(s)”, or “Used Mercury Thermostat(s)”.
- G. Pesticide Labels: The container(s) holding pesticides shall be labeled or marked as “Universal Waste – Pesticide(s)” or “Waste Pesticide(s)”.
- H. Once the properly labeled containers holding the Universal Waste have been filled and sealed, they shall be stored in designated accumulation areas as agreed upon by the Owner’s Representative and Contractor. They shall not be stored in transportation vehicles, or on-site for more than one year from the date the waste storage was initiated.
- I. Documentation when Universal Waste in storage was first accumulated shall be provided. This is to be done by dating and labeling the waste with the date of the earliest accumulation. Thus, the length of time the Universal Waste has been accumulated can be readily determined / documented.
- J. Maintenance of an inventory system on-site that identifies the earliest date that any Universal Waste in a group of Universal Waste items or a group of containers of Universal Waste became a waste was received.

- K. Any waste developed from the work that exhibits one or more characteristics of hazardous waste, that are not specifically identified by EPA and NYS DEC as Universal Waste, must be handled accordingly and not as a Universal Waste. See the Hazardous Waste Disposal Specification section 02 86 00 for those waste types.

PART 4 DISPOSAL OF UNIVERSAL WASTE

4.01 TRANSPORTATION AND DISPOSAL

- A. The Contractor's Hauler and Disposal Facility shall be approved by the Owner. The Contractor is responsible for securing appropriate treatment or disposal for the generated Universal Waste streams at a permitted TSDF, if necessary, in compliance with all regulatory requirements, and for obtaining a copy of the waste manifest/shipping record and waste profile of the treated waste as executed by the TSDF.
- B. The Contractor shall give at least 24-hour notification prior to removing any waste from the site. Waste shall be removed from the site only during normal working hours unless otherwise specified. No waste may be taken from the site unless the Contractor and Environmental Consultant are present, and the Environmental Consultant authorizes the release of the waste. The DOT-trained Environmental Consultant must be on-site for all Universal Waste shipment removals and will be responsible for inspection of the waste shipment as well as signoff on the Universal Waste manifest/shipping record on behalf of the owner and DASNY to allow the Universal Waste shipment to leave the site.
- C. All Universal Waste generated as part of the project shall be removed from the site within 10 calendar days after successful completion of work. However, all disposal facility permits/licenses, waste profiles, hauler permit(s), and all other necessary paperwork must be submitted and approved by the Environmental Consultant before the Universal Waste is removed from the site. Waste stream samples, if required, shall be collected by the Environmental Consultant for TCLP analysis and the results utilized by the Contractor for waste stream characterization and disposal determination.
- D. Upon arrival at the Project Site, the Hauler must possess and present to the Environmental Consultant a valid New York State Department of Environmental Conservation Part 364 Waste Hauler's Permit. The Environmental Consultant may verify the authenticity of the hauler's permit with the proper authority.
- E. The Hauler, with the Contractor and the Environmental Consultant, shall inspect all material in the transport container prior to taking possession and signing the Universal Waste Manifest/shipping record.

4.02 WASTE SHIPMENT STORAGE CONTAINERS

- A. All waste shipment storage containers shall be fully enclosed and lockable (i.e. enclosed dumpster, trailer, etc.).
- B. The Environmental Consultant shall verify that the waste shipment storage container and/or truck tags (license plates) match that listed on the New York State Department of Environmental Conservation Part 364 permit. Any waste shipment storage container not listed on the permit shall be removed from the site immediately prior to storage of any material from the site.
- C. Once on-site, it shall be kept locked at all times, except during load out. The waste shipment storage container shall not be used for storage of equipment or contractor supplies.
- D. While on-site, the waste shipment storage container shall be labeled with Universal Waste Labels.

- E. The waste shipment storage container is not permitted to be loaded unless it is properly plasticized and has the appropriate danger signage affixed.
- F. The Owner may initiate random checks at the Disposal Site to ensure that the procedures outlined herein are complied with.

4.03 WASTE MANIFEST/SHIPMENT RECORDS & DISPOSAL DOCUMENTATION

- A. A Universal Waste Manifest/Shipping Record (UWMSR) shall be utilized solely as the waste record documentation for transportation. A hauler billing form or bill of lading may be used if the hauler needs an independent record, but it shall not be used as the sole shipping document.
- B. The UWMSR shall be completed by the Contractor and verified by the Environmental Consultant that all the information and amounts are accurate, and the proper signatures are in place.
- C. The UWMSR, if applicable, shall have the appropriate signatures of the Owner's Representative (the Handler) and the Hauler representative prior to any waste being removed from the site.
- D. Copies of the completed UWMSR shall be retained by the Environmental Consultant and shall remain on-site for inspection.
- E. The Contractor shall utilize the Waste Disposal Log provided by the Owner. This log shall be maintained by the Project Supervisor and shall be kept on-site at all times (See Appendix A).
- F. Originals of all UWMSRs and disposal logs (copies are acceptable for electronic closeout submittal review) shall be submitted by the Contractor to the Owner with the final close-out documentation.
- G. Payment for disposal of Universal Waste will not be made until a signed copy of the manifest/shipment record from the treatment or disposal facility certifying the amount of Universal Waste delivered is returned for each load of waste removed from site, the originals are furnished to the Owner, and copies provided to DASNY Code Compliance.
- H. Off-Site Shipment of Universal Waste
 1. Off-Site shipments shall meet the requirements for off-site shipments and handlers / transporters are prohibited from sending or taking Universal Waste to a place other than a designated Universal Waste handler or a Universal Waste destination facility.
 2. LQHs of Universal Waste must notify EPA in writing and develop an EPA identification number or coordinate with the facility regarding use of their EPA identification number, prior to exceeding 5,000 kilograms of Universal Waste on-site.
 3. SQHs do not need to notify EPA, receive an EPA identification number or keep records of shipments of Universal Waste.
 4. LQHs must keep a record of all Universal Waste shipments received or sent off-site and must retain those records for at least three (3) years from the date of receipt or shipment. Records may include invoices, manifest/shipment records, logs, bills of lading, or other shipping documents.
 5. The Contractor shall provide certified copies of all receipts obtained from designated mercury recycling collection sites within 30 days of MCE acceptance by collection , as applicable.
 6. The Contractor shall furnish all certified copies of manifest/shipment records (interim storage and final disposal) within regulatory requirements. Within 30 days from acceptance of the waste by the disposal facility, the Contractor shall provide the Owner with Certificate of Disposal documents, as a requirement for final payment.

END OF SECTION 02 87 00

APPENDIX A

WASTE DISPOSAL LOG



DORMITORY AUTHORITY STATE OF NEW YORK WASTE SHIPMENT RECORD LOG

Facility Name: _____

Building Name/Number: _____

Project Name: _____

DASNY Project Number: _____

Contractor: _____

Environmental Consultant: _____

Load No.	Hauler Name	NYSDEC #	License Plate No.	Size of Container	Disposal Facility Name	Date Depart from Site	Date Received at Disposal Site	Date Shipment Record Returned

Comments:

Page _____ of _____

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies cast-in place concrete, including formwork, reinforcement, concrete materials, mixture design, and placement procedures for the following types of concrete mixes:
 - 1. Foundations (Bases at Fences, Light Poles, Bollards).
 - 2. Duct Banks.
 - 3. Granite Curb Setting Mix.
 - 4. Concrete for Walkways (refer to Specification Section 321313).
- B. Related Sections:
 - 1. Division 31 Section "Aggregates for Earthwork" for aggregate subbase course.
 - 2. Division 31 Section "Earth Moving" for subgrade preparation.
 - 3. Division 32 Section "Concrete Sidewalks".

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete mixture.
 - a. Submit all mix design requirements in one package including product information for admixtures.
 - b. Indicate where each mix will be used
 - c. Indicate proposed method of curing
 - d. Provide an Environmental Product Declaration for each concrete mix
- C. Steel Reinforcement Shop Drawings: Placing Drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement.
- D. Construction Joint Layout: Indicate proposed construction joints required to construct the structure.
 - 1. Location of construction joints is subject to approval of the Engineer.

1.3 INFORMATIONAL SUBMITTALS

- A. Material Certificates: For each of the following, signed by manufacturers:
 - 1. Cementitious materials.

2. Admixtures.
3. Form materials and form-release agents.
4. Steel reinforcement and accessories.
5. Fiber reinforcement.
6. Waterstops.
7. Curing compounds.
8. Floor and slab treatments.
9. Bonding agents.
10. Adhesives.
11. Vapor retarders.
12. Semirigid joint filler.
13. Joint-filler strips.
14. Repair materials.

1.4 QUALITY ASSURANCE

- A. Obtain cementitious materials from same source throughout project.
- B. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products, that complies with ASTM C 94/C 94M requirements for production facilities and equipment, and has a minimum three years experience.
 1. Concrete batching plants shall be currently approved as concrete suppliers by the New York State Department of Transportation (NYSDOT).
 2. Truck mixers for concrete shall be currently approved by the New York State Department of Transportation (NYSDOT).
 4. Fly Ash supplier shall be on the New York State Department of Transportation's current "Approved List of Suppliers of Fly Ash".
 5. Source Quality Control: The Owner's Representative reserves the right to inspect and approve the following items, at his own discretion, either with his own forces or with a designated inspection agency.
 6. Notify the Owner's Representative and the testing agency at least 24 hours prior to placing any concrete.
- C. Installer Qualifications: Company specializing in performing work of this section with minimum three years documented experience.
- D. Perform work in accordance with:
 1. New York State Department of Transportation (NYSDOT) Standard Specifications (current version):
 - a. Section 501: Portland Cement Concrete – General.
 - b. Section 608: Sidewalks, Driveways, and Bicycle Paths.
 2. ACI Publications:
 - a. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."
 - b. ACI 301, "Specification for Structural Concrete."
 - c. ACI 304 - Guide for Measuring, Mixing, Transporting, and Placing Concrete.
 3. ASTM International:

- a. ASTM A185 - Standard Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.
- b. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
- c. ASTM C150 - Standard Specification for Portland Cement.
- d. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
- e. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
- f. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete.
- g. ASTM C1315 - Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.
- h. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).

E. Preinstallation Conference: Conduct conference at Project site.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
- B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.
- C. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch (19 by 19 mm), minimum
- D. Form-Release Agent: Commercially formulated form-release agent that does not bond with, stain, or adversely affect concrete surfaces and does not impair subsequent treatments of concrete surfaces.
- E. Form Ties: Factory-fabricated, removable or snap-off glass-fiber-reinforced plastic or metal form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.
 - 1. Furnish units that leave no corrodible metal closer than 1 inch (25 mm) to the plane of exposed concrete surface.
- F. Furnish ties that, when removed, leave holes no larger than 1 inch (25 mm) in diameter in concrete surface

2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.
- B. Galvanized Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed bars, ASTM A 767/A 767M, Class I zinc coated after fabrication and bending.

- C. Plain-Steel Welded Wire Reinforcement: ASTM A 185, plain, fabricated from as-drawn steel wire into flat sheets.
- D. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice."
 - 1. For concrete surfaces exposed to view, where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire or CRSI Class 2 stainless-steel bar supports.
 - 2. For zinc-coated reinforcement, use galvanized wire or dielectric-polymer-coated wire bar supports

2.3 CONCRETE MATERIALS

- A. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from single source, and obtain admixtures from single source from single manufacturer
- B. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
 - 1. ASTM C 150, Type I or II Portland Cement.
 - 2. Use approved brand without change for the entire project.
 - 3. Cement used throughout the project shall be uniform in color so as not to prejudice the appearance of exposed concrete.
 - a. Fly Ash: ASTM C 618, Class F, as per NYSDOT Standard Specifications Section 711-10 (Fly Ash).
- C. Normal-Weight Aggregates: As per NYSDOT Standard Specifications Section 703-01 (Fine Aggregates) and 703-02 (Course Aggregate). Provide Aggregates from an approved NYSDOT source.
 - 1. Fine Aggregate:
 - a. Free of materials with deleterious reactivity to alkali in cement.
 - b. Clean, sharp, natural sand free from loam, clay, organic impurities or foreign materials meeting the requirements of ASTM C33.
 - 2. Coarse Aggregate: Crushed gravel or crushed stone meeting the requirements of ASTM C33. Aggregate size is dependent on mix type.
- D. Water: As per NYSDOT Standard Specifications Section 712-01 (Water) and ASTM C 94/C 94M, Potable. Approval of Owner's Representative is required for any water source other than a public potable water supply.
- E. Air-Entraining Admixture: As per NYSDOT Standard Specifications Section 711-08 (Admixtures) and ASTM C 260.
- F. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. All admixtures to be used shall be submitted to the Owner's

Representative for review. Do not use calcium chloride or admixtures containing calcium chloride.

1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
2. Retarding Admixture: ASTM C 494/C 494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

2.4 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Anti-Spalling, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B. Approved products and Manufactures include, but are not limited to, the following:
 1. Kure-N-Seal by Sonneborn, A Division of BASF.
 2. SealCure Emulsion by Conspec, A Dayton Superior Company.
 3. Cure & Seal by Symons Corp.
 4. Or Approved Equal.

2.5 RELATED MATERIALS

- A. Expansion Joint Strips: As per NYSDOT Standard Specifications Section 705-07 (Premoulded Resilient Joint Filler) and ASTM D 1751, asphalt-saturated cellulosic fiber.
 1. Use a material/manufacturer from the NYSDOT Approved List.

2.6 CONCRETE MIXTURES

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
- B. Cementitious Materials: Fly ash, pozzolan, ground granulated blast-furnace slag, and silica fume may be used to reduce the total amount of portland cement.
- C. Optional Material: Fly ash may be substituted for (Portland) cement in normal weight and lightweight concrete up to a maximum of 15 percent by weight of the required minimum

(Portland) cement. If fly ash is incorporated in a concrete design mix, make necessary adjustments to the design mix to compensate for the use of fly ash as a partial replacement for (Portland) cement.

- D. All concrete shall be air-entrained.
- E. Cast-in-place concrete shall be normal weight concrete and shall have a minimum compressive strength of 4000 psi except as otherwise specified on the drawing notes (5,000 psi for exterior walks and slabs). See table for location and concrete specifications.

Location	F'c (Min. 28-Day Comp. Strength) (psi)	Cement Unit Weight (lbs/cy) min.	ASTM C33 Aggregate (Size No.)	Range * Slump (Inches)	Water Cement Ratio (by Weight)	Air Entr. (percent) **
General Foundation (includes foundations for Bollards, Handrail & Fence Posts & Light Poles, watermain thrust blocks)	4,000	611	67 or 57	2"- 4"	0.46	4-8
Duct Bank	4,000	611	67 or 57	2"- 4"	0.46	4-8
Exterior Walkways and slabs	5,000	573	67 or 57	2"- 4"	0.46	4-8
Concrete Mix for setting Granite Curb (wet & dry mix for curb set)	2,500	420	57	4"	0.48	4-8

*Slump, as noted in table, is before the addition of any water-reducing admixtures. When a water-reducing admixture is used, maximum slump shall be 6 inches.

**Use air-entraining admixture, not air-entrained cement.

- F. Admixtures: Do not use admixtures in concrete unless specified or approved in writing by the Owner's Representative. Use admixtures according to manufacturer's written instructions.
- G. Adjustment to Concrete Mixes: Mix design adjustments may be requested by the Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant, at no additional cost to the Owner, and as accepted by the Owner's Representative. Laboratory test data for revised mix design and strength results must be submitted to and accepted by the Owner's Representative before using in the work.

- H. Synthetic Fiber: Uniformly disperse in concrete mixture at rates specified in Part 2.3A and Part 2.3B.

2.7 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."
- B. Place as per the project Plans.

2.8 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.
 - 1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork according to ACI 301 to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Chamfer exterior corners and edges of permanently exposed concrete.

3.2 EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.3 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.

3.4 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.

- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Owner's Representative.
- C. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

3.5 CONCRETE PLACEMENT

- A. Refer to Specification 321313 for placement of concrete at walkways.
- B. Before placing concrete, verify that
 - 1. Compacted subgrade soil is acceptable and ready to support paving and imposed loads.
 - 2. Compacted subbase is acceptable and ready to support paving and imposed loads.
 - 3. Gradients and elevations of base are correct.
 - 4. Installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed
 - 5. Moisten base to minimize absorption of water from fresh concrete.
 - 6. Coat surfaces of manhole and catch basin frames with oil to prevent bond with concrete pavement.
 - 7. Notify Owner's Representative minimum 24 hours prior to commencement of concreting operations.
- C. Do not place concrete when base surface temperature is less than 40 degrees F, or surface is wet or frozen.
- D. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
 - 1. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
- E. Weather Conditions: Protect concrete from physical damage or reduced strength due to weather extremes during mixing, placement and curing.
 - 1. Hot Weather:
 - a. Provide adequate controls to insure that the temperature of the concrete when placed does not exceed 90 degrees F., and make every effort to place it at a lower temperature. The temperature of the concrete as placed shall not be so high as to cause difficulty from loss of slump, flash set or cold joints. Ingredients may be cooled before mixing by shading the aggregates, fog spraying the coarse aggregate, chilling the mixing water or other approved means. Mixing water may be chilled with flake ice or well-crushed ice of a size that will melt completely during mixing, providing the water equivalent of the ice is calculated into the total amount of mixing water.

- b. When air temperature is between 85 degrees F and 90 degrees F, reduce mixing and delivery time from 1 1/2 hours to 75 minutes, and when air temperature is above 90°F, reduce mixing and delivery time to 60 minutes. (ACI 305)
2. Cold Weather:
- a. When air temperature is below 40 degrees F heat the mixing water and, if necessary, the aggregates to obtain a concrete mixture temperature of not less than 50 degrees F and not more than 80 degrees F at point of placement. If the mixing water is heated, do not exceed a temperature of 140 degrees F at the time it is added to the cement and aggregates. (ACI 306)
- F. Cold-Weather Placement: Comply with ACI 306.1.
- G. Hot-Weather Placement: Comply with ACI 301.
- H. Interruption of Concreting: Should placing of concrete be suspended or unavoidably interrupted, keyways and bulkheads shall be provided and steps taken to prevent feather-edging when work is resumed. Horizontal surfaces shall be roughened for bond.
- I. Concrete shall be deposited within thirty (30) minutes of completion of mixing. If set retarding admixtures are used, concrete shall be deposited as recommended by the admixture manufacturer. In either case, concrete shall be discharged within 150 minutes of addition of cement to mixer.
- J. Retempering concrete, at the project site, by adding water or other means shall not be permitted after the initial specified slump has been obtained and site added admixtures are discharged.

3.6 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
 - 1. Apply to concrete surfaces not exposed to view.
- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
 - 1. Apply to concrete surfaces exposed to public view, and to receive a rubbed finish
- C. Rubbed Finish: Apply the following to smooth-formed-finished as-cast concrete where indicated:
 - 1. Smooth-Rubbed Finish: Not later than one day after form removal, moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture. Do not apply cement grout other than that created by the rubbing process.

2. Apply to exposed surfaces of knee walls at the staircases.

- D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.7 FINISHING EXTERIOR WALKWAYS AND SLABS

- A. Perform work in accordance with Division 32 Section 321313 Cement Concrete Pavement.

3.8 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Contractor has the option to apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause rapid moisture loss. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- D. Curing Compound: Apply curing compound immediately after final finishing. Apply according to manufacturer's written instructions.
- E. Cure concrete according to ACI 308.1, by one or a combination of the following methods:
1. Moisture Curing: Keep surfaces continuously moist for not less than seven days.
 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
 3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

3.9 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Owner's Representative. Remove and replace concrete that cannot be repaired and patched to Owner's Representative approval.

3.10 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Owner's Representative will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.

Testing Services: Tests shall be performed according to ACI 301.

- B. The following Inspections will be performed:

1. Steel reinforcement placement.
2. Verification of use of required design mixture.
3. Concrete placement, including conveying and depositing.
4. Curing procedures and maintenance of curing temperature.
5. Verification of concrete strength.

- C. Concrete Tests (to be performed by the independent testing agency): At each concrete placement that will include testing, two sets of concrete cylinders will be cast and field cured. Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:

1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.
 - a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
5. Compression Test Specimens: ASTM C 31/C 31M.
 - a. Cast and laboratory cure one set of five standard 4" cylinder specimens for each composite sample.
6. Compressive-Strength Tests: ASTM C 39/C 39M; test one set of two laboratory-cured specimens at 7 days and one set of two specimens at 28 days.
 - a. Test one set of two 4" diameter field-cured specimens at 7 days and one set of two specimens at 28 days.
 - b. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.
7. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.

8. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi .
9. Test results shall be reported in writing to the Owner's Representative, concrete manufacturer, Engineer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
10. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Owners Representative but will not be used as sole basis for approval or rejection of concrete.
11. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by the Owner's Representative. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42/C 42M or by other methods as directed by Owner's Representative.
12. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
13. Contractor shall correct deficiencies in the Work that test reports and inspections indicate does not comply with the Contract Documents. Contractor's method of correcting any deficiencies in the work shall be approved by the Owner's Representative.

END OF SECTION 033000

SECTION 078400 - FIRESTOPPING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Provide firestop systems consisting of a material, or combination of materials installed to retain the integrity of fire resistance rated construction by maintaining an effective barrier against the spread of flame, smoke and/or hot gases through penetrations, fire resistive joints, and perimeter openings in accordance with the requirements of the Building Code for this project.
- B. Firestop systems shall be used in locations including, but not limited to, the following:
 - 1. Penetrations through fire resistance rated floor and roof assemblies including both empty openings and openings containing penetrants.
 - 2. Penetrations through fire resistance rated wall assemblies including both empty openings and openings containing penetrants.
 - 3. Membrane penetrations in fire resistance rated wall assemblies where items penetrate one side of the barrier.
 - 4. Joints between fire resistance rated assemblies.
 - 5. Perimeter gaps between rated floors/roofs and an exterior wall assembly.
- C. Related Sections include, but are not limited to, the following:
 - 1. Division 07 – Thermal and Moisture Protection
 - 2. Division 09 – Finishes
 - 3. Division 21 – Fire Suppression
 - 4. Division 22 – Plumbing
 - 5. Division 23 – Heating, Ventilating and Air Conditioning
 - 6. Division 25 - Automation
 - 7. Division 26 – Electrical
 - 8. Division 27 – Communications
 - 9. Division 28 – Electrical Safety and Security

1.3 REFERENCES

- A. New York State Uniform Fire Prevention and Building Code
- B. National Fire Protection Association (NFPA)
 - 1. NFPA 101 (Life Safety Code)
- C. American Society For Testing and Materials Standards (ASTM):
 - 1. ASTM E84: Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 2. ASTM E814: Standard Test Method for Fire Tests of Through-Penetration Firestops.
 - 3. ASTM E1966: Test Method for Resistance of Building Joint Systems.

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4. ASTM E1399: Test Method for Cyclic Movement and Measuring Minimum and Maximum Joint Width.
 5. ASTM E119: Methods of Fire Tests of Building Construction and Materials.
 6. ASTM E2174: Standard Practice for On-Site Inspection of Installed Fire Stops
 7. ASTM E2307: Standard Test Method for Determining the Fire Endurance of Perimeter Fire Barrier Systems Using the Intermediate-Scale, Multi Story Test Apparatus (ISMA)
 8. ASTM E2393-04 Standard Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers
- D. Underwriters Laboratories Inc. (UL):
1. UL Qualified Firestop Contractor Program.
 2. UL 263: Fire Tests of Building Construction and Materials.
 3. UL 723: Surface Burning Characteristics of Building Materials.
 4. UL 1479: Fire Tests of Through-Penetration Fire Stops.
 5. UL 2079: Tests for Fire Resistance of Building Joint Systems.
- E. UL Fire Resistance Directory -Volume 2:
1. Through-Penetration Firestop Devices (XHJI)
 2. Fire Resistive Ratings (BXUV)
 3. Through-Penetration Firestop Systems (XHEZ)
 4. Fill, Void, or Cavity Material (XHHW)
- F. Omega Point Laboratories (OPL)
1. Building Products, Materials & Assemblies – Volume II
- G. Factory Mutual Research (FM):
1. FM 4991: FM Approval Standard of Firestop Contractors – Class 4991

1.4 DEFINITIONS

- A. Firestopping: The use of a material or combination of materials in a fire-rated structure (wall or floor) where it has been breached, so as to restore the integrity of the fire rating on that wall or floor.
- B. System: The use of a specific firestop material or combination of materials in conjunction with a specific wall or floor construction type and a specific penetrant(s).
- C. Barrier: Any bearing or non-bearing wall or floor that has an hourly fire and smoke rating.
- D. Through-penetration: Any penetration of a fire-rated wall or floor that completely breaches the barrier.
- E. Membrane-penetration: Any penetration in a fire-rated wall or floor/roof-ceiling assembly that breaches only one side of the barrier.
- F. Fire Resistive/Construction Joint: Any gap, joint, or opening, whether static or dynamic, between two fire rated barriers including where the top of a wall meets a floor; wall edge to wall edge applications; floor edge to floor edge configurations; floor edge to wall.
- G. Perimeter Barrier: Any gap, joint, or opening, whether static or dynamic, between a fire rated floor assembly and an exterior wall assembly.
- H. Approved Testing Agencies: Not limited to: Underwriters Laboratory (UL), Factory Mutual (FM), Warnock Hersey, and Omega Point Laboratory (OPL).

1.5 PERFORMANCE REQUIREMENTS

Work of Specification Section 078400 will be performed by Owner

- A. Penetrations: Provide through-penetration and membrane-penetration firestop systems that are produced and installed to resist the spread of fire, passage of smoke and other hot gases according to requirements indicated, to restore the original fire-resistance rating of assembly penetrated.
 - 1. Provide and install complete penetration firestopping systems that have been tested and approved by nationally accepted testing agencies per ASTM E814 or UL 1479 fire tests in a configuration that is representative of field conditions.
 - 2. F-Rated Systems: Provide firestop systems with F-ratings indicated, as determined per ASTM E814 or UL 1479, but not less than one (1) hour or the fire resistance rating of the assembly being penetrated.
 - 3. T-Rated Systems: Provide firestop systems with T-ratings indicated, as well as F-ratings, as determined per ASTM E814 or UL 1479, where required by the Building Code.
 - 4. L- Rated Systems: Provide firestop systems with L- ratings less than 5cfm/sf.
 - 5. W-Rated systems: Provide firestop systems that are resistant to water. For piping penetrations for plumbing and wet-pipe sprinkler systems, provide moisture-resistant through-penetration firestop systems.
 - 6. For penetrations involving non-metallic, CPVC, PVC, or plastic piping, tubing or conduit, provide firestop systems that are chemically compatible in accordance with Manufacturer requirements.
 - 7. For penetrations involving insulated piping, provide firestop systems not requiring removal of insulation.
 - 8. For penetrations involving fire or fire/smoke dampers, only firestop products approved by the damper manufacturer shall be installed in accordance with the damper installation instructions.
- B. Fire Resistive Joints: Provide joint systems with fire resistance assembly ratings indicated, as determined by UL 2079 (ASTM E1399 and E1966), but not less than the fire resistance assembly rating of the construction in which the joint occurs. Firestopping assemblies must be capable of withstanding anticipated movements for the installed field conditions.
 - 1. For firestopping assemblies exposed to view, traffic, moisture, and physical damage, provide products that after curing do not deteriorate when exposed to these conditions both during and after construction.
 - 2. For floor penetrations exposed to possible loading and traffic, provide firestop systems capable of supporting floor loads involved either by installing floor plates or by other means, as specified by the Architect.
 - 3. L- Rated Systems: Provide firestop systems with L- ratings less than 5cfm/sf.
- C. Firestopping products shall have flame spread ratings less than 25 and smoke-developed ratings less than 450, as determined per ASTM E 84. Note: Firestop products installed in plenum spaces shall have a smoke developed rating less than 50.
- D. Engineering Judgment (EJ): Where there is no specific third party tested and classified firestop system available for an installed condition, the Contractor shall obtain from the firestopping material manufacturer an Engineering Judgment (EJ) to be submitted to the Approving Authority, Design Professional and Authority Having Jurisdiction for approval prior to installation. The EJ shall follow International Firestop Council (IFC) guidelines.

1.6 SUBMITTALS

- A. Product Data: For each type of firestopping product selected. Manufacturer's certification must verify that firestopping materials are free of asbestos, lead and contain volatile organic compounds (VOCs) within limits of the local jurisdiction.
- B. Design Listings: Submit system design listings, including illustrations, from a qualified testing and inspecting agency that is applicable to each firestop configuration.
- C. Installation Instructions: Submit the manufacturer's installation instruction for each firestop assembly.

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- D. Where there is no specific third party tested and classified firestop system available for a particular configuration, the Contractor shall obtain from the firestopping material manufacturer an Engineering Judgment (EJ) for submittal.
- E. Material Safety Data Sheet (MSDS): Submit for each type of firestopping product selected.
- F. Qualification Data: For firms and persons specified in “Quality Assurance” Article to demonstrate their capabilities and experience. Submit documents as per 1.7.
- G. A quality control manual approved by FM or UL (if applicable).
- H. Firestop Schedule: Submit schedule (see appendix A) itemizing the following:
 - 1. Manufacturer’s product reference numbers and/or drawing numbers.
 - 2. Listing agency’s design number.
 - 3. Penetrating Item Description/Limits: Material, size, insulated or uninsulated, and combustibility.
 - 4. Maximum allowable annular space or maximum size opening.
 - 5. Wall type construction.
 - 6. Floor type construction.
 - 7. Hourly Fire resistance rating of wall or floor.
 - 8. F rating.
 - 9. T, L, and W rating, if applicable.
- I. Firestop Application Log: A separate binder shall be prepared and kept on site for use by the Inspection Agency and the Authority Having Jurisdiction. The binder shall contain the following:
 - 1. The binder shall be a three (3) ring binder.
 - 2. Firestop Schedule (see appendix A)
 - 3. All approved firestopping assemblies including engineering judgments shall be provided and organized by trade.
 - 4. Copy of manufacturer’s installation instruction for each firestop assembly.
 - 5. A matrix or table of contents listing each assembly shall be provided.
 - 6. The binder shall be updated as new firestop assemblies or EJ’s are added.
 - 7. The binder shall be kept on-site at a location approved by the Owner.
 - 8. Qualifications or Certification of Installer

1.7 QUALITY ASSURANCE

- A. Provide firestopping system design listings from UL, FM, Warnock Hersey or OPL in accordance with the appropriate ASTM Standard(s) per article 1.5.
- B. Contractor Qualifications: An acceptable Firestop Contractor shall be:
 - 1. Licensed by State or Local Authority where applicable, or
 - 2. FM Research approved in accordance with FM Standard 4991, or
 - 3. UL Qualified Firestop Contractor, or
 - 4. Meet the following requirements
 - i. Installation personnel shall be trained by the approved firestop manufacturer.
 - ii. The installation firm shall be experienced in installing firestop systems and fire resistive joint systems similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful performance.

Work of Specification Section 078400 will be performed by Owner

- iii. Qualifications include having the necessary experience, staff, and training to install manufacturer's products per specified tested and listed system requirements.
 - iv. Minimum of three (3) years experience and shown to have successfully completed not less than 5 comparable scale projects and provide references.
- C. Single Source Limitations: Obtain firestop systems for all conditions from a single manufacturer.
 - D. Materials from different firestop manufacturers shall not be installed in the same firestop system or opening.
 - E. Firestopping material shall be asbestos and lead free and shall not incorporate nor require the use of hazardous solvents.
 - F. Firestopping sealants must be flexible, allowing for normal movement.
 - G. Firestopping materials shall not shrink upon drying as evidenced by cracking or pulling back from contact surfaces such that a void is created.
 - H. Firestopping materials shall be moisture resistant, and may not dissolve in water after curing.
 - I. Materials used shall be in accordance with the manufacturer's written installation instructions.
 - J. Identify installed firestop systems with preprinted metal or plastic labels. Attach labels permanently to surfaces adjacent to and within 6 inches (150 mm) of edge of the firestop systems so that labels will be visible to anyone seeking to remove penetrating items or firestop systems. Use mechanical fasteners for metal labels. For plastic labels, use self-adhering type with adhesives capable of permanently bonding labels to surfaces on which labels are placed and provide a label material that will result in partial destruction of label if removal is attempted. Include the following information on labels:
 - 1. The words "Warning - Firestop System - Do Not Disturb. Notify Building Management of Any Damage."
 - 2. Contractor's name, address, and phone number.
 - 3. Firestop system designation of applicable testing and listing agency.
 - 4. Date of installation.
 - 5. Firestop system manufacturer's name.
 - 6. Installer's name.
 - 7. Inspector's name (if applicable)
 - K. Inspection of penetrations through fire rated floor and wall assemblies shall be in accordance with ASTM E2174, Standard Practice for On-Site Inspection of Installed Fire Stops and ASTM E2393-04 Standard Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers. The Owner may engage a qualified, independent inspection agency, or material testing agency to perform these inspections.
 - L. Field Mock-up Installations: Prior to installing firestopping, erect mock-up installations for each type firestop system indicated in the Firestop Schedule to verify selections made and to establish standard of quality and performance by which the firestopping work will be judged by the Owner or Owner's Representative. Obtain acceptance of mock-up installations by the Owner or Owner's Representative before start of firestopping installation. Provide at least 72 hours notice to Owner or Owner's Representative prior to inspection.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver firestopping products to Project site in original, unopened containers or packages with intact and legible manufacturer's labels identifying product and manufacturer, date of manufacture/expiration, lot number, listing agency's classification marking, and mixing instructions for multi-component materials.
- B. Store and handle materials per manufacturer's instructions to prevent deterioration or damage due to moisture, temperature changes, contaminants, or other causes.

- C. All firestop materials shall be installed prior to expiration date.

1.9 PROJECT CONDITIONS

- A. Environmental Limitations: Install firestopping when ambient or substrate temperatures are within limits permitted by the manufacturer's written instructions. Do not install firestopping when substrates are wet due to rain, frost, condensation, or other causes.
- B. Ventilate per the manufacturers written instructions on the product's Material Safety Data Sheet.
- C. Verify the condition of the substrates before starting work.
- D. Care should be taken to ensure that firestopping materials are installed so as not to contaminate adjacent surfaces.

1.10 COORDINATION

- A. Coordinate areas prior to firestopping installation with the Owner, Construction Manager and/or all other Contractors.
- B. Coordinate construction of openings and penetrating items to ensure that firestopping assemblies are installed according to specified requirements. Opening shall not exceed maximum restrictions allowable for annular spacing per listing or acceptable Engineering Judgments.
- C. Coordinate sizing of sleeves, openings, core-drilled holes, or cut openings to accommodate through-penetration firestop systems.
- D. Do not conceal firestopping installations until the Owner's inspection agency or Authorities Having Jurisdiction have examined each installation.
- E. Schedule firestopping after installation of penetrants and joints but prior to concealing or obstructing access to areas requiring firestopping.
- F. Preinstallation Conference: This conference should be a joint meeting attended by the Owner's Representative and all prime contractors, respective firestopping sub-contractors and firestopping company field advisor to review project requirements. The agenda for the conference should include the following topics:
 - 1. Review scope of work.
 - 2. Review shop drawings and firestop application log.
 - 3. Review mock-up requirements.
 - 4. Discuss identification labels and locations.
 - 5. Review schedule, coordination and sequencing with all trades.
 - 6. Review any engineering judgments or other special requirements.
 - 7. Function and frequency of inspections and testing labs.
- G. Destructive testing shall be performed at mock up and at pre determined intervals according to ASTM E 2174 and ASTM E 2393-04 by the inspector and with the installing Contractor present. Inspector to test for in place installation conformance to tested and listed system or engineering judgment details. Non conformances will result in additional destructive testing, at the cost of the installer.

PART 2 - PRODUCTS

2.1 FIRESTOPPING, GENERAL

- A. Firestopping products specified in system design listings by approved testing agencies may be used providing they conform to the construction type, penetrant type, annular space requirements and fire rating involved in each separate assembly.

- B. Manufacturer of firestopping products shall have been successfully producing and supplying these products for a period of not less than three years and be able to show evidence of at least ten projects where similar products have been installed and accepted.
- C. Accessories: Provide components for each firestop system that is needed to install fill materials and to comply with "Performance Requirements" Article. Use only components specified by the firestopping manufacturer and by the approved testing agencies for the firestop systems indicated. Accessories include, but are not limited to the following items:
 - 1. Permanent forming/damming/backing materials, including the following:
 - i. Slag wool fiber insulation.
 - ii. Foams or sealants used to prevent leakage of fill materials in liquid state.
 - iii. Fire-rated form board.
 - iv. Polyethylene/polyurethane backer rod.
 - v. Rigid polystyrene board.
 - 2. Temporary forming materials.
 - 3. Substrate primers.
 - 4. Steel sleeves
- D. All firestopping products and systems shall be designed and installed so that the basic sealing system will allow the full restoration of the thermal and fire resistance properties of the barrier being penetrated with minimal repair if penetrants are subsequently removed.

2.2 MIXING

- A. For those products requiring mixing before application, comply with firestopping manufacturer's written instructions for accurate proportioning of materials, water (if required), type of mixing equipment, selection of mixer speeds, mixing containers, mixing time, and other items or procedures needed to produce products of uniform quality with optimum performance characteristics for application indicated.

2.3 MANUFACTURERS

- A. Subject to compliance with the requirements, provide products by one of the following or equivalent manufacturers:
 - 1. Grace Construction Products.
 - 2. Nelson Firestop Products.
 - 3. Hilti Firestop Products.
 - 4. A/D Fire Protection Systems Inc.
 - 5. RectorSeal Corporation (The).
 - 6. Specified Technologies Inc.
 - 7. 3M; Fire Protection Products Division.
 - 8. Tremco; Sealant/Weatherproofing Division.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions for compliance with requirements for opening configurations, penetrating items, substrates, and other conditions affecting performance.

- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Verify that all pipes, conduits, cables, and/or other items which penetrate fire-rated construction have been permanently installed prior to installation of firestops.

3.2 PREPARATION

- A. Surface Cleaning: Clean out openings immediately before installing firestop systems to comply with written recommendations of firestopping manufacturer and the following requirements:
 - 1. Remove from surfaces of opening substrates and from penetrating items foreign materials that could interfere with adhesion of firestop systems.
 - 2. Clean opening substrates and penetrating items to produce clean, sound surfaces capable of developing optimum bond with firestop systems. Remove loose particles remaining from cleaning operation.
 - 3. Remove laitance and form-release agents from concrete.

3.3 FIRESTOP SYSTEMS INSTALLATION

- A. General: Install firestop systems to comply with “Performance Requirements” article in Part 1 and firestopping manufacturer’s written installation instructions and published drawings for products and applications indicated.
- B. Installation of firestopping shall be performed by an applicator/installer qualified as described in article 1.7.
- C. Apply firestopping in accordance with approved testing agencies listed system designs or manufacturer’s EJ per the manufacturer’s installation instructions.
- D. Verify that environmental conditions are safe and suitable for installation of firestop products.
- E. Install forming/damming/backing materials and other accessories required to support fill materials during their application and in the position needed to produce cross-sectional shapes and depths required to achieve fire resistance ratings required.
- F. Install joint forming/damming materials and other accessories required to support fill materials during their application and in the position needed to produce cross-sectional shapes and depths of installed firestopping material relative to joint widths that allow optimum movement capability and achieve fire resistance ratings required.
- G. Install metal framing, curtain wall insulation, mechanical attachments, safing materials and firestop materials as applicable within the system design.
- H. Install fill materials for firestop systems by proven techniques to produce the following results:
 - 1. Fill voids, joints and cavities formed by openings, forming materials, accessories, and penetrating items as required to achieve fire-resistance ratings indicated.
 - 2. Apply materials so they fully contact and adhere to substrates formed by openings and penetrating items.
 - 3. For fill materials that will remain exposed after completing Work, finish to produce smooth, uniform surfaces that are flush with adjoining finishes.
 - 4. Tool non-sag firestop materials after their application and prior to the time skinning begins. Use tooling agents approved by the firestopping manufacturer.
- I. On vertical pipe penetrations, lift riser clamps to permit the installation of firestopping around the entire pipe penetration. For penetrations involving fire or fire/smoke dampers, only firestop products approved by the damper manufacturer shall be installed in accordance with the damper installation instructions.

3.4 FIELD QUALITY CONTROL

- A. Inspecting Agency: Authorities Having Jurisdiction, the Owner, or Owner's Representative shall be allowed to perform random destructive testing during inspection of firestop systems to verify compliance per listings or manufacturer's installation instructions. All areas of work must be accessible until inspection by the applicable Authorities Having Jurisdiction and inspection agencies. The contractor shall be responsible to repair all tested assemblies with no cost to the owner.
- B. Proceed with enclosing firestop systems with other construction only after inspections are complete.
- C. Where deficiencies are found, repair or replace firestop systems so they comply with requirements.

3.5 CLEANING AND PROTECTION

- A. Clean off excess fill materials adjacent to openings, as Work progresses by methods and with cleaning materials that are approved in writing by firestopping manufacturer(s) and that do not damage materials in which openings occur. Leave finished work in neat, clean condition with no evidence of spillovers or damage to adjacent surfaces.
- B. Provide final protection and maintain conditions during and after installation that ensure firestop systems are without damage or deterioration at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated firestop systems immediately and install new materials to produce firestop systems complying with specified requirements.

Work of Specification Section 078400 will be performed by Owner

FIRESTOP SCHEDULE

Project No:	Contractor Name and Address:	Date Submitted:
Project Title:	Supplier/Installer Name and Address:	Company Field Advisor Name and Address:
	Manufacturer Name and Address:	

Manufacturer's Product Reference Numbers and/or Drawing Numbers	U.L., FM, Warnock Hersey or Omega Point Lab Penetration Design Nos.	Penetrating Item: Material, Size, Insulated, Combustible, Joint, Perimeter, etc. Description:	Maximum Allowable Annular Space or Maximum Size Opening	Wall type Construction		Floor Type Construction	Fire Resistance Rating of Wall or Floor (Hourly)	F Rating	T Rating (floors Only)	L Rating (if available)	W Rating (if available)
				DES.	CONST.						
Example No. 1 DCFSS-130	UL #130	Maximum 4" Steel Pipe Non- Insulated		P4	6" CMU	N.A.	1 Hour	1 Hour	N.A	.	
Example No. 2 5300-ICF88.01	UL #591	Maximum 4" PVC Pipe		N.A.	N.A.	UL # D916	3 Hour	1 Hour	2 Hour		
Exmple No. 3	CW-S-2006	Curtain Wall/Perimeter	6" to 12"	NA	NA	4 ½" Reinforced LW concrete	2 Hour	2 Hour	NA	1 CFM/ Lin Ft.	

SECTION 260501 - COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Electrical equipment coordination and installation.
2. Common electrical installation requirements.

1.2 COORDINATION

A. Coordinate arrangement, mounting, and support of electrical equipment:

1. To allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
2. To provide for ease of disconnecting the equipment with minimum interference to other installations.
3. To allow right of way for piping and conduit installed at required slope.
4. So connecting raceways, cables and wireways, will be clear of obstructions and of the working and access space of other equipment.

B. Coordinate installation of required supporting devices.

PART 2 - PRODUCTS

2.1 NOT USED

PART 3 - EXECUTION

3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

- A. Comply with NECA 1.
- B. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.
- C. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.

- D. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.

END OF SECTION 260501

SECTION 260502 - ELECTRICAL DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Removal of existing electrical equipment, wiring, and conduit in areas as indicated on Drawings; removal of designated construction; dismantling, cutting and alterations for completion of the Work.
 - 2. Disposal of materials.
 - 3. Storage of removed materials.
 - 4. Identification of utilities.
 - 5. Salvaged items.
 - 6. Protection of items to remain as indicated on Drawings.
 - 7. Relocate existing equipment to accommodate construction.

1.2 CLOSEOUT SUBMITTALS

- A. Section 013300 – Submittal Procedure: Requirements for submittals.
- B. Project Record Documents: Record actual locations of conduits and equipment abandoned in place.

1.3 QUALITY ASSURANCE

- A. Perform Work in accordance with Federal, State and Local rules and regulations.

1.4 COORDINATION

- A. Section 013100 – Project Management and Coordination: Requirements for coordination.
- B. Conduct demolition to minimize interference with adjacent and occupied building areas.
- C. Coordinate demolition work with the construction manager.
- D. Coordinate and sequence demolition so as not to cause shutdown of operation of surrounding areas.
- E. Shut-down Periods:
 - 1. Arrange timing of shut-down periods of in service panels with the construction manager. Do not shut down any utility without prior written approval.
 - 2. Keep shut-down period to a minimum or use intermittent period as directed by the construction manager.
 - 3. Maintain life-safety systems in full operation in occupied facilities.

PART 2 PRODUCTS
Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 013100 - Project Management and Coordination: Verification of existing conditions before starting work.
- B. Verify wiring and equipment indicated to be demolished serve only site lighting and systems noted on drawings.
- C. Verify termination points for demolished branch circuits.

3.2 DEMOLITION

- A. Demolition Drawings are based on casual field observation and existing record documents. Report discrepancies to the construction manager before disturbing existing installation.
- B. Remove exposed abandoned conduit above accessible ceiling finishes. Cut conduit flush with walls and floors, and patch surfaces.
- C. Remove conduit, wire, boxes, and fastening devices to avoid any interference with new installation.
- D. Reconnect equipment being disturbed and required for continued service.
- E. Remove electrical fixtures, equipment, and related contactors, switches, conduit and wiring which are not part of final project.
- F. Install temporary wiring and connections to maintain existing systems in service during construction.
- G. Perform work on energized equipment or circuits with experienced and trained personnel.
- H. Repair adjacent construction and finishes damaged during demolition and new work.
- I. Remove exposed abandoned grounding and bonding components, fasteners and supports, and electrical identification components, including abandoned components above accessible ceiling finishes. Cut embedded support elements flush with walls and floors.
- J. Remove light pole foundations, pole, fixtures, and associated wiring, conduits, and controls as noted on contract drawings.

- K. Clean existing equipment to remain or to be reinstalled.
- L. Protect and retain power to existing active equipment remaining.
- M. Cap portions of remaining abandoned empty conduit at both ends. Provide pull string with tag at each end, indicating the location of the other end of the conduit.

3.3 EXISTING PANELBOARDS

- A. Where additional circuits are needed, reuse circuits available for reuse. Install new breakers as required to accommodate site lighting and other systems noted on the drawings.
- B. Tag unused circuits as spare.
- C. Where existing circuits are indicated to be reused, use sensing measuring devices to verify circuits feeding Project area are not in use.
- D. Remove existing wire no longer in use from panel to equipment.
- E. Provide new updated directories where more than three circuits have been modified or rewired.

3.4 SALVAGE ITEMS

- A. Remove and protect items indicated on Drawings to be salvaged and turn over to Owner.

3.5 REUSABLE ELECTRICAL EQUIPMENT

- A. Carefully remove equipment, materials, or fixtures which are to be reused.
- B. Disconnect, remove, or relocate existing electrical material and equipment interfering with new installation.

3.6 CLEANING

- A. Section 017419 - Execution Requirements: Requirements for cleaning.
- B. Remove demolished materials as work progresses. Legally dispose.
- C. Keep workplace neat.

3.7 PROTECTION OF FINISHED WORK

- A. Section 017329 – Cutting and Patching: Requirements for protecting finished Work.

END OF SECTION

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SECTION 260519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Copper building wire rated 600 V or less.
2. Connectors, splices, and terminations rated 600 V and less.

B. Related Requirements:

1. Section 078400 "Penetration Firestopping" for penetration firestopping installed in fire-resistance-rated walls, horizontal assemblies, and smoke barriers, with and without penetrating items.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Product Schedule: Indicate type, use, location, and termination locations.

1.3 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

PART 2 - PRODUCTS

2.1 COPPER BUILDING WIRE

A. Description: Flexible, insulated and uninsulated, drawn copper current-carrying conductor with an overall insulation layer or jacket, or both, rated 600 V or less.

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Cerro Wire LLC.
2. General Cable Technologies Corporation.
3. Okonite Company (The).
4. Southwire Company.
5. WESCO.

C. Standards:

1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
 2. RoHS compliant.
 3. Conductor and Cable Marking: Comply with wire and cable marking according to UL's "Wire and Cable Marking and Application Guide."
- D. Conductors: Copper, complying with ASTM B 3 for bare annealed copper and with ASTM B 8 for stranded conductors.
- E. Conductor Insulation:
1. Type THHN and Type THWN-2: Comply with UL 83.

2.2 CONNECTORS AND SPLICES

- A. Description: Factory-fabricated connectors, splices, and lugs of size, ampacity rating, material, type, and class for application and service indicated; listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. 3M Electrical Products.
 2. Ideal Industries, Inc.
 3. ILSCO.
 4. O-Z/Gedney; a brand of Emerson Industrial Automation.
 5. Thomas & Betts Corporation; A Member of the ABB Group.
- C. Lugs: One piece, seamless, designed to terminate conductors specified in this Section.
1. Material: Copper.
 2. Type: One hole with standard barrels.
 3. Termination: Compression.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: Copper; solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

- A. Exposed Feeders: Type THHN/THWN-2, single conductors in raceway.

- B. Exposed Branch Circuits, Including in Crawlspace: Type THHN/THWN-2, single conductors in raceway.
- C. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN/THWN-2, single conductors in raceway.
- D. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN/THWN-2, single conductors in raceway.

3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Finished Spaces: Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
- B. Complete raceway installation between conductor and cable termination points according to Section 260533 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.
- C. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- D. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips that will not damage cables or raceway.
- E. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.
- F. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."

3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
- C. Wiring at Outlets: Install conductor at each outlet, with at least 12 inches of slack.

3.5 IDENTIFICATION

- A. Identify and color-code conductors and cables according to Section 260553 "Identification for Electrical Systems."
- B. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

3.6 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

3.7 FIRESTOPPING

- A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly according to Section 078400 "Firestopping."

\END OF SECTION 260519

SECTION 260526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes grounding and bonding systems and equipment.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.3 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Plans showing dimensioned as-built locations of grounding features specified in "Field Quality Control" Article.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.
 - 1. Plans showing as-built, dimensioned locations of grounding features specified in "Field Quality Control" Article, including the following:
 - a. Ground rods.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with UL 467 for grounding and bonding materials and equipment.

2.2 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Burndy; Part of Hubbell Electrical Systems.
 - 2. ERICO International Corporation.
 - 3. ILSCO.

4. O-Z/Gedney; a brand of Emerson Industrial Automation.
5. Thomas & Betts Corporation; A Member of the ABB Group.

2.3 CONDUCTORS

- A. Insulated Conductors: tinned-copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
 1. Stranded Conductors: ASTM B 8.
 2. Tinned Conductors: ASTM B 33.

2.4 CONNECTORS

- A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
- B. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

2.5 GROUNDING ELECTRODES

- A. Ground Rods: Copper-clad steel; 3/4 inch by 10 feet.

PART 3 - EXECUTION

3.1 APPLICATIONS

- A. Conductors: Install solid conductor for No. 10 AWG and smaller, and stranded conductors for No. 8 AWG and larger unless otherwise indicated.
- B. Underground Grounding Conductors: Install bare tinned-copper conductor, No. 4 AWG minimum, from ground rod to ground lug in luminaire pole.
 1. Refer to “Foundation Detail – Site Luminaires Round Base” in drawing set.
- C. Conductor Terminations and Connections:
 1. Equipment Grounding Conductor Terminations: Bolted connectors.
 2. Underground Connections: Exothermic welded connectors except as otherwise indicated.

3.2 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.
- B. Poles Supporting Outdoor Lighting Fixtures: Install grounding electrode and a separate insulated equipment grounding conductor in addition to grounding conductor installed with branch-circuit conductors.

3.3 INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Ground Rods: Drive rods until tops are 18 inches below final grade unless otherwise indicated.

END OF SECTION 260526

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SECTION 260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel slotted support systems.
2. Conduit and cable support devices.
3. Mounting, anchoring, and attachment components, mechanical expansion anchors, concrete inserts, clamps, through bolts, toggle bolts, and hanger rods.

B. Related Requirements:

1. Section 078400 "Penetration Firestopping" for penetration firestopping installed in fire-resistance-rated walls, horizontal assemblies, and smoke barriers, with and without penetrating items.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For fabrication and installation details for electrical hangers and support systems.

1. Hangers. Include product data for components.
2. Slotted support systems.
3. Equipment supports.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Flame Rating: Class 1.
2. Self-extinguishing according to ASTM D 635.

2.2 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

A. Steel Slotted Support Systems: Preformed steel channels and angles with minimum 13/32-inch-diameter holes at a maximum of 8 inches o.c. in at least one surface.

Work of Specification Section 260529 will be performed by Owner

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following
 - a. B-line, an Eaton business.
 - b. ERICO International Corporation.
 - c. Thomas & Betts Corporation; A Member of the ABB Group.
 - d. Unistrut; Part of Atkore International.
 2. Standard: Comply with MFMA-4 factory-fabricated components for field assembly.
 3. Material for Channel, Fittings, and Accessories: Galvanized steel.
 4. Channel Width: Selected for applicable load criteria,
 5. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
- B. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- C. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
1. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel, for use in hardened portland cement concrete, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
 - a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1) B-line, an Eaton business.
 - 2) Hilti, Inc.
 - 3) MKT Fastening, LLC.
 2. Clamps for Attachment to Steel Structural Elements: MSS SP-58 units are suitable for attached structural element.
 3. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
 4. Toggle Bolts: Stainless-steel springhead type.
 5. Hanger Rods: Threaded steel.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Comply with the following standards for application and installation requirements of hangers and supports, except where requirements on Drawings or in this Section are stricter:
1. NECA 1.
 2. NECA 101
 3. NECA 105.

Work of Specification Section 260529 will be performed by Owner

- B. Comply with requirements in Section 078400 "Penetration Firestopping" for firestopping materials and installation for penetrations through fire-rated walls, ceilings, and assemblies.
- C. Comply with requirements for raceways and boxes specified in Section 260533 "Raceways and Boxes for Electrical Systems."
- D. Maximum Support Spacing and Minimum Hanger Rod Size for Raceways: Space supports for EMT and RMC as required by NFPA 70. Minimum rod size shall be 1/4 inch in diameter.
- E. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted support system, sized so capacity can be increased by at least 25percent in future without exceeding specified design load limits.
 - 1. Secure raceways and cables to these supports with single-bolt conduit clamps using spring friction action for retention in support channel.
- F. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch and smaller raceways serving branch circuits and communication systems above suspended ceilings, and for fastening raceways to trapeze supports.

3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, EMT and RMC may be supported by openings through structure members, according to NFPA 70.
- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.
- D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
 - 1. To Wood: Fasten with lag screws or through bolts.
 - 2. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
 - 3. To Existing Concrete: Expansion anchor fasteners.
 - 4. To Steel: Beam clamps (MSS SP-58, Type 19, 21, 23, 25, or 27), complying with MSS SP-69.
 - 5. To Light Steel: Sheet metal screws.
 - 6. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate.
- E. Drill holes for expansion anchors in concrete at locations and to depths that avoid the need for reinforcing bars.

Work of Specification Section 260529 will be performed by Owner

3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

- A. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.

END OF SECTION 260529

SECTION 260533 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Metal conduits and fittings.
2. Metal wireways and auxiliary gutters.
3. Boxes, enclosures, and cabinets.

B. Related Requirements:

1. Section 078400 "Penetration Firestopping" for penetration firestopping installed in fire-resistance-rated walls, horizontal assemblies, and smoke barriers, with and without penetrating items.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For custom enclosures and cabinets. Include plans, elevations, sections, and attachment details.

PART 2 - PRODUCTS

2.1 METAL CONDUITS AND FITTINGS

A. Metal Conduit:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. AFC Cable Systems; a part of Atkore International.
 - b. Allied Tube & Conduit; a part of Atkore International.
 - c. O-Z/Gedney; a brand of Emerson Industrial Automation.
 - d. Thomas & Betts Corporation; A Member of the ABB Group.
 - e. Wheatland Tube Company.
2. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
3. GRC: Comply with ANSI C80.1 and UL 6.

4. EMT: Comply with ANSI C80.3 and UL 797.
- B. Metal Fittings: Comply with NEMA FB 1 and UL 514B.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following.
 - a. AFC Cable Systems; a part of Atkore International.
 - b. Allied Tube & Conduit; a part of Atkore International.
 - c. O-Z/Gedney; a brand of Emerson Industrial Automation.
 - d. Thomas & Betts Corporation; A Member of the ABB Group.
 - e. Wheatland Tube Company.
 2. Listing and Labeling: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
 3. Fittings, General: Listed and labeled for type of conduit, location, and use.
 4. Fittings for EMT:
 - a. Material: Steel.
 - b. Type: Setscrew.
 5. Expansion Fittings: PVC or steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.
- C. Joint Compound for GRC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2.2 METAL WIREWAYS AND AUXILIARY GUTTERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. B-line, an Eaton business.
 2. Hoffman; a brand of Pentair Equipment Protection.
 3. MonoSystems, Inc.
 4. Square D.
- B. Description: Sheet metal, complying with UL 870 and NEMA 250, Type 1 unless otherwise indicated, and sized according to NFPA 70.
- C. Fittings and Accessories: Include covers, couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.

2.3 BOXES, ENCLOSURES, AND CABINETS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Crouse-Hinds, an Eaton business.
 - 2. EGS/Appleton Electric.
 - 3. Hoffman; a brand of Pentair Equipment Protection.
 - 4. Hubbell Incorporated; Wiring Device-Kellems.
 - 5. O-Z/Gedney; a brand of Emerson Industrial Automation.
 - 6. RACO; Hubbell.
 - 7. Spring City Electrical Manufacturing Company.
 - 8. Thomas & Betts Corporation; A Member of the ABB Group.

- B. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.

- C. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL 514A.

- D. Cast-Metal Outlet and Device Boxes: Comply with NEMA FB 1, ferrous alloy, Type FD, with gasketed cover.

- E. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.

- F. Cast-Metal Access, Pull, and Junction Boxes: Comply with NEMA FB 1 and UL 1773, cast aluminum with gasketed cover.

- G. Box extensions used to accommodate new building finishes shall be of same material as recessed box.

- H. Device Box Dimensions: 4 inches square by 2-1/8 inches deep.

- I. Gangable boxes are prohibited.

- J. Hinged-Cover Enclosures: Comply with UL 50 and NEMA 250, Type 1 with continuous-hinge cover with flush latch unless otherwise indicated.
 - 1. Metal Enclosures: Steel, finished inside and out with manufacturer's standard enamel.
 - 2. Interior Panels: Steel; all sides finished with manufacturer's standard enamel.

- K. Cabinets - Interior:
 - 1. NEMA 250, Type 1 galvanized-steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
 - 2. Hinged door in front cover with flush latch and concealed hinge.
 - 3. Key latch to match panelboards.
 - 4. Metal barriers to separate wiring of different systems and voltage.
 - 5. Accessory feet where required for freestanding equipment.

- L. Cabinets - Exterior:

1. NEMA 250, Type 4x stainless steel box.
2. Hinged door
3. Internal 3-Point latch with provisions for pad lock on handle.
4. 14 gauge type 304 or 306l stainless steel enclosure.
5. Seamless gasket.
6. Bonding provision on door; grounding stud on body.
7. Rails for equipment mounting.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

A. Outdoors: Apply raceway products as specified below unless otherwise indicated:

1. Exposed Conduit: GRC.
2. Concealed Conduit, Aboveground: GRC.
3. Underground Conduit: Refer to drawing details and Section 260453 Underground Ducts and Raceways for Electrical Systems.
4. Boxes and Enclosures, Aboveground: NEMA 250, Type 4.

B. Indoors: Apply raceway products as specified below unless otherwise indicated.

1. Exposed, Not Subject to Physical Damage: EMT.
2. Exposed and Subject to Physical Damage: GRC. Raceway locations include the following:
 - a. Loading dock.
 - b. Corridors used for traffic of mechanized carts, forklifts, and pallet-handling units.
 - c. To match surrounding GRC raceways.
3. Damp or Wet Locations: GRC.
4. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4 stainless steel in institutional and commercial kitchens and damp or wet locations.

C. Minimum Raceway Size: 3/4-inch trade size.

D. Raceway Fittings: Compatible with raceways and suitable for use and location.

1. Rigid Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
2. EMT: Use steel compression fittings. Comply with NEMA FB 2.10.

E. Do not install aluminum conduits, boxes, or fittings in contact with concrete or earth.

3.2 INSTALLATION

A. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for hangers and supports.

- B. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- C. Do not fasten conduits onto the bottom side of a metal deck roof.
- D. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- E. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for hangers and supports.
- F. Arrange stub-ups so curved portions of bends are not visible above finished slab.
- G. Install no more than the equivalent of three 90-degree bends in any conduit run except for communication or control wiring conduits, for which fewer bends are allowed. Support within 12 inches of changes in direction.
- H. Make bends in raceway using large-radius preformed ells. Field bending shall be according to NFPA 70 minimum radii requirements. Use only equipment specifically designed for material and size involved.
- I. Support conduit within 12 inches of enclosures to which attached.
- J. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- K. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors including conductors smaller than No. 4 AWG.
- L. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch trade size and insulated throat metal bushings on 1-1/2-inch trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
- M. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb tensile strength. Leave at least 12 inches of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- N. Install raceway sealing fittings at accessible locations according to NFPA 70 and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces.
- O. Install devices to seal raceway interiors at accessible locations. Locate seals so no fittings or boxes are between the seal and the following changes of environments. Seal the interior of all raceways at the following points:
 - 1. Where an underground service raceway enters a building or structure.
 - 2. Conduit extending from interior to exterior of building.

3. Conduit extending into pressurized zones that are automatically controlled to maintain different pressure set points.
4. Where otherwise required by NFPA 70.

P. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to bottom of box unless otherwise indicated.

Q. Locate boxes so that cover or plate will not span different building finishes.

R. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.

3.3 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

3.4 FIRESTOPPING

A. Install firestopping at penetrations of fire-rated floor and wall assemblies. Comply with requirements in Section 078400 "Penetration Firestopping."

3.5 PROTECTION

A. Protect coatings, finishes, and cabinets from damage and deterioration.

1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
2. Repair damage to paint finishes with matching touchup coating recommended by manufacturer.

END OF SECTION 260533

SECTION 260543 - UNDERGROUND DUCTS AND RACEWAYS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Metal conduits and fittings, including GRC steel conduit.
2. Rigid nonmetallic duct.
3. Duct accessories.
4. Polymer concrete handholes and boxes with polymer concrete cover.

1.2 DEFINITIONS

A. Direct Buried: Duct or a duct bank that is buried in the ground within sand bed.

B. Duct: A single duct or multiple ducts. Duct may be either installed singly or as component of a duct bank.

C. Duct Bank:

1. Two or more ducts installed in parallel, with or without additional casing materials.
2. Multiple duct banks.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings:

1. Factory-Fabricated Handholes and Boxes Other Than Precast Concrete:

- a. Include dimensioned plans, sections, and elevations, and fabrication and installation details.
- b. Include duct entry provisions, including locations and duct sizes.
- c. Include cover design.

1.4 INFORMATIONAL SUBMITTALS

A. Source quality-control reports.

B. Field quality-control reports.

1.5 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Qualified according to ASTM E 329 for testing indicated.

PART 2 - PRODUCTS

2.1 METAL CONDUIT AND FITTINGS

- A. GRC: Comply with ANSI C80.1 and UL 6.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Allied Tube & Conduit; a part of Atkore International.
 - 2. O-Z/Gedney; a brand of Emerson Industrial Automation.
 - 3. Republic Conduit.
 - 4. Thomas & Betts Corporation; A Member of the ABB Group.
- C. Listed and labeled as defined in NFPA 70, by a nationally recognized testing laboratory, and marked for intended location and application.

2.2 RIGID NONMETALLIC DUCT

- A. Underground Plastic Utilities Duct: Type EPC-80-PVC complying with NEMA TC 2 and UL 651, with matching fittings complying with NEMA TC 3 by same manufacturer as duct.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. CANTEX INC.
 - 2. CertainTeed Corporation.
 - 3. Manhattan/CDT.
- C. Listed and labeled as defined in NFPA 70, by a nationally recognized testing laboratory, and marked for intended location and application.

2.3 DUCT ACCESSORIES

- A. Duct Spacers: Factory-fabricated, rigid, PVC interlocking spacers; sized for type and size of duct with which used, and selected to provide minimum duct spacing indicated while supporting duct during concreting or backfilling.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Allied Tube & Conduit; a part of Atkore International.

- b. CANTEX INC.
- c. Carlon; a brand of Thomas & Betts Corporation.
- d. IPEX USA LLC.
- e. PenCell Plastics.

B. Underground-Line Warning Tape: Comply with requirements for underground-line warning tape specified in Section 260553 "Identification for Electrical Systems."

2.4 POLYMER CONCRETE HANDHOLES AND BOXES WITH POLYMER CONCRETE COVER

A. Description: Molded of sand and aggregate, bound together with a polymer resin, and reinforced with steel or fiberglass or a combination of the two.

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- 1. Armorcast Products Company.
- 2. NewBasis.
- 3. Oldcastle Enclosure Solutions.
- 4. Quazite: Hubbell Power Systems, Inc.

C. Standard: Comply with SCTE 77. Comply with tier requirements in "Underground Enclosure Application" Article.

D. Color: Gray.

E. Configuration: Units shall be designed for flush burial and have open bottom unless otherwise indicated.

F. Cover: Weatherproof, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure.

G. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.

H. Cover Legend: Molded lettering, "ELECTRIC."

I. Duct Entrance Provisions: Duct-terminating fittings shall mate with entering duct for secure, fixed installation in enclosure wall.

2.5 SOURCE QUALITY CONTROL

A. Test and inspect precast concrete utility structures according to ASTM C 1037.

B. Nonconcrete Handhole and Pull-Box Prototype Test: Test prototypes of handholes and boxes for compliance with SCTE 77. Strength tests shall be for specified tier ratings of products supplied.

1. Strength tests of complete boxes and covers shall be by an independent testing agency or manufacturer. A qualified registered professional engineer shall certify tests by manufacturer.
2. Testing machine pressure gages shall have current calibration certification, complying with ISO 9000 and ISO 10012, and traceable to NIST standards.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Coordinate layout and installation of duct, duct bank, handholes, and boxes with final arrangement of other utilities, site grading, and surface features as determined in the field. Notify Engineer or Site Representative if there is a conflict between areas of excavation and existing structures or archaeological sites to remain.
- B. Coordinate elevations of duct and duct-bank entrances into handholes, and boxes with final locations and profiles of duct and duct banks, as determined by coordination with other utilities, underground obstructions, and surface features. Revise locations and elevations as required to suit field conditions and to ensure that duct and duct bank will drain to handholes and away from buildings.

3.2 UNDERGROUND DUCT APPLICATION

- A. Duct for Electrical Branch Circuits: RNC Type EPC-80-PVC, direct-buried in sand bed unless otherwise indicated.
- B. Underground Ducts Crossing or located beneath Driveways and Roadways: RNC Type EPC-80-PVC, direct-buried in sand bed unless otherwise indicated.
- C. Stub-ups: GRC.

3.3 UNDERGROUND ENCLOSURE APPLICATION

- A. Handholes and Boxes for 600 V and Less:
 1. Polymer concrete, SCTE 77, Tier 15 structural load rating.
 2. Cover design load shall not exceed the design load of the handhole or box.

3.4 EARTHWORK

- A. Excavation and Backfill: Comply with Section 312000 "Earth Moving," but do not use heavy-duty, hydraulic-operated, compaction equipment.
- B. Restore areas disturbed by trenching, storing of dirt, cable laying, and other work. Restore vegetation and include necessary topsoiling, fertilizing, liming, seeding, sodding, sprigging, and mulching. Comply with Section 329200 "Turf and Grasses."

- C. Cut and patch existing pavement in the path of underground duct, duct bank, and underground structures according to "Cutting and Patching" Article in Section 017300 "Execution."

3.5 DUCT AND DUCT-BANK INSTALLATION

- A. Where indicated on Drawings, install duct, spacers, and accessories into the duct-bank configuration shown. Duct installation requirements in this Section also apply to duct bank.
- B. Install duct according to NEMA TCB 2.
- C. Slope: Pitch duct a minimum slope of 1:300 down toward handholes and away from buildings and equipment. Slope duct from a high point to drain in both directions.
- D. Curves and Bends: Use 5-degree angle couplings for small changes in direction. Use manufactured long sweep bends with a minimum radius of 25 feet, both horizontally and vertically, at other locations unless otherwise indicated.
 - 1. Duct shall have maximum of two 90 degree bends or the total of all bends shall be no more 180 degrees between pull points.
- E. Joints: Use solvent-cemented joints in duct and fittings and make watertight according to manufacturer's written instructions. Stagger couplings so those of adjacent duct do not lie in same plane.
- F. Installation Adjacent to High-Temperature Steam Lines: Where duct is installed parallel to underground steam lines, perform calculations showing the duct will not be subject to environmental temperatures above 40 deg C. Where environmental temperatures are calculated to rise above 40 deg C, and anywhere the duct crosses above an underground steam line, install insulation blankets listed for direct burial to isolate the duct bank from the steam line.
- G. Building Wall Penetrations: Make a transition from underground duct to GRC at least 5 feet outside the building wall, without reducing duct line slope away from the building and without forming a trap in the line. Use fittings manufactured for RNC-to-GRC transition. Install GRC penetrations of building walls as specified in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."
- H. Sealing: Provide temporary closure at terminations of duct with pulled cables. Seal spare duct at terminations. Use sealing compound and plugs to withstand at least 15-psig hydrostatic pressure.
- I. Pulling Cord: Install 200-lbf-test nylon cord in empty ducts.
- J. Direct-Buried Duct and Duct Bank:
 - 1. Excavate trench bottom to provide firm and uniform support for duct. Comply with requirements in Section 312000 "Earth Moving" for preparation of trench bottoms for pipes less than 6 inches in nominal diameter.
 - 2. Width: Excavate trench 3 inches wider than duct on each side.
 - 3. Depth: Install top of duct at least 30 inches below finished grade unless otherwise indicated.

4. Support ducts on duct spacers coordinated with duct size, duct spacing, and outdoor temperature.
5. Spacer Installation: Place spacers close enough to prevent sagging and deforming of duct, with not less than four spacers per 20 feet of duct. Place spacers within 24 inches of duct ends. Stagger spacers approximately 6 inches between tiers. Secure spacers to earth and to ducts to prevent floating during concreting. Tie entire assembly together using fabric straps; do not use tie wires or reinforcing steel that may form conductive or magnetic loops around ducts or duct groups.
6. Install duct with a minimum of 3 inches between ducts for like services and 6 inches between power and communications duct.
7. Elbows: Install manufactured duct elbows for stub-ups, at building entrances, and at changes of direction in duct direction unless otherwise indicated. Encase elbows for stub-up ducts throughout length of elbow.
8. Install manufactured GRC elbows for stub-ups, at building entrances, and at changes of direction in duct.
9. After installing first tier of duct, backfill and compact. Start at tie-in point and work toward end of duct run, leaving ducts at end of run free to move with expansion and contraction as temperature changes during this process. Repeat procedure after placing each tier. After placing last tier, hand place backfill to 4 inches over duct and hand tamp. Firmly tamp backfill around ducts to provide maximum supporting strength. Use hand tamper only. After placing controlled backfill over final tier, make final duct connections at end of run and complete backfilling with normal compaction. Comply with requirements in Section 312000 "Earth Moving" for installation of backfill materials.
 - a. Place minimum 3 inches of sand as a bed for duct. Place sand to a minimum of 6 inches above top level of duct.

- K. Underground-Line Warning Tape: Bury conducting underground line specified in Section 260553 "Identification for Electrical Systems" no less than 12 inches above all concrete-encased duct and duct banks and approximately 12 inches below grade. Align tape parallel to and within 3 inches of centerline of duct bank. Provide an additional warning tape for each 12-inch increment of duct-bank width over a nominal 18 inches. Space additional tapes 12 inches apart, horizontally.

3.6 INSTALLATION OF HANDHOLES AND BOXES OTHER THAN PRECAST CONCRETE

- A. Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting duct, to minimize bends and deflections required for proper entrances. Use box extension if required to match depths of duct, and seal joint between box and extension as recommended by manufacturer.
- B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch sieve to No. 4 sieve and compacted to same density as adjacent undisturbed earth.
- C. Field cut openings for duct according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.

3.7 GROUNDING

- A. Ground underground ducts and utility structures according to Section 260526 "Grounding and Bonding for Electrical Systems."

3.8 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
 - 1. Demonstrate capability and compliance with requirements on completion of installation of underground duct, duct bank, and utility structures.
 - 2. Pull solid aluminum or wood test mandrel through duct to prove joint integrity and adequate bend radii, and test for out-of-round duct. Provide a minimum 12-inch-long mandrel equal to duct size minus 1/4 inch. If obstructions are indicated, remove obstructions and retest.
- B. Correct deficiencies and retest as specified above to demonstrate compliance.
- C. Prepare test and inspection reports.

3.9 CLEANING

- A. Pull leather-washer-type duct cleaner, with graduated washer sizes, through full length of duct until duct cleaner indicates that duct is clear of dirt and debris. Follow with rubber duct swab for final cleaning and to assist in spreading lubricant throughout ducts.

END OF SECTION 260543

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SECTION 260544 - SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Sleeves for raceway and cable penetration of non-fire-rated construction walls and floors.
2. Sleeve-seal systems.
3. Sleeve-seal fittings.
4. Grout.
5. Silicone sealants.

B. Related Requirements:

1. Section 078400 "Penetration Firestopping" for penetration firestopping installed in fire-resistance-rated walls, horizontal assemblies, and smoke barriers, with and without penetrating items.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 SLEEVES

A. Wall Sleeves:

1. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, zinc coated, plain ends.
2. Cast-Iron Pipe Sleeves: Cast or fabricated "wall pipe," equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop unless otherwise indicated.

2.2 SLEEVE-SEAL SYSTEMS

A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Advance Products & Systems, Inc.

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- b. CALPICO, Inc.
 - c. Metraflex Company (The).
 - d. Pipeline Seal and Insulator, Inc.
 - e. Proco Products, Inc.
2. Sealing Elements: EPDM rubber interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
 3. Pressure Plates: Plastic.
 4. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements.

2.3 SLEEVE-SEAL FITTINGS

- A. Description: Manufactured plastic, sleeve-type, waterstop assembly made for embedding in concrete slab or wall. Unit shall have plastic or rubber waterstop collar with center opening to match piping OD.
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. HOLDRITE.
 - b. Metraflex Company (The).
 - c. GPT Industries.

2.4 GROUT

- A. Description: Nonshrink; recommended for interior and exterior sealing openings in non-fire-rated walls or floors.
- B. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.
- C. Design Mix: 5000-psi, 28-day compressive strength.
- D. Packaging: Premixed and factory packaged.

2.5 SILICONE SEALANTS

- A. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants of grade indicated below.
 1. Grade: Pourable (self-leveling) formulation for openings in floors and other horizontal surfaces that are not fire rated.
- B. Silicone Foams: Multicomponent, silicone-based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, nonshrinking foam.

PART 3 - EXECUTION

3.1 SLEEVE INSTALLATION FOR NON-FIRE-RATED ELECTRICAL PENETRATIONS

- A. Comply with NECA 1.
- B. Comply with NEMA VE 2 for cable tray and cable penetrations.
- C. Sleeves for Conduits Penetrating Above-Grade Non-Fire-Rated Concrete and Masonry-Unit Floors and Walls:
 - 1. Interior Penetrations of Non-Fire-Rated Walls and Floors:
 - a. Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint.
 - b. Seal space outside of sleeves with mortar or grout. Pack sealing material solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect material while curing.
 - 2. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.
 - 3. Size pipe sleeves to provide 1/4-inch annular clear space between sleeve and raceway or cable unless sleeve seal is to be installed.
 - 4. Install sleeves for wall penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of walls. Cut sleeves to length for mounting flush with both surfaces of walls. Deburr after cutting.
 - 5. Install sleeves for floor penetrations. Extend sleeves installed in floors 2 inches above finished floor level. Install sleeves during erection of floors.
- D. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies:
 - 1. Use circular metal sleeves unless penetration arrangement requires rectangular sleeved opening.
 - 2. Seal space outside of sleeves with approved joint compound for gypsum board assemblies.
- E. Aboveground, Exterior-Wall Penetrations: Seal penetrations using steel pipe sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.
- F. Underground, Exterior-Wall and Floor Penetrations: Install cast-iron pipe sleeves. Size sleeves to allow for 1-inch annular clear space between raceway or cable and sleeve for installing sleeve-seal system.

3.2 SLEEVE-SEAL-SYSTEM INSTALLATION

- A. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at raceway entries into building.
- B. Install type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of sleeve. Assemble mechanical

Work of Specification Section 260544 will be performed by Owner

sleeve seals and install in annular space between raceway or cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.3 SLEEVE-SEAL-FITTING INSTALLATION

- A. Install sleeve-seal fittings in new walls and slabs as they are constructed.
- B. Assemble fitting components of length to be flush with both surfaces of concrete slabs and walls. Position waterstop flange to be centered in concrete slab or wall.
- C. Secure nailing flanges to concrete forms.
- D. Using grout, seal the space around outside of sleeve-seal fittings.

END OF SECTION 260544

SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Color and legend requirements for raceways, conductors, and warning labels and signs.
2. Labels.
3. Tags.
4. Signs.
5. Cable ties.
6. Fasteners for labels and signs.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Comply with ASME A13.1 and IEEE C2.
- B. Comply with NFPA 70.
- C. Comply with ANSI Z535.4 for safety signs and labels.
- D. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

2.2 COLOR AND LEGEND REQUIREMENTS

- A. Color-Coding for Phase- and Voltage-Level Identification, 600 V or Less: Use colors listed below for ungrounded branch-circuit conductors.
 1. Color shall be factory applied or field applied for sizes larger than No. 8 AWG if authorities having jurisdiction permit.
 2. Colors for 208/120-V Circuits:
 - a. Phase A: Black.
 - b. Phase B: Red.
 - c. Phase C: Blue.

3. Colors for 240-V Circuits:
 - a. Phase A: Black.
 - b. Phase B: Red.
4. Colors for 480/277-V Circuits:
 - a. Phase A: Brown.
 - b. Phase B: Orange.
 - c. Phase C: Yellow.
5. Color for Neutral: White.
6. Color for Equipment Grounds: Green..
7. Colors for Isolated Grounds: Green with white stripe.

B. Warning Label Colors:

1. Identify system voltage with black letters on an orange background.

C. Warning labels and signs shall include, but are not limited to, the following legends:

1. Workspace Clearance Warning: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES."

D. Identification Labels:

1. Equipment Label - Black letters on a white field.
2. Light Pole Label (Decal) – Black letters on reflective vinyl

2.3 LABELS

A. Self-Adhesive Labels: Vinyl, thermal, transfer-printed, 3-mil-thick, multicolor, weather- and UV-resistant, pressure-sensitive adhesive labels, configured for intended use and location.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Brady Corporation.
 - b. Brother International Corporation.
 - c. emedco.
 - d. Ideal Industries, Inc.
 - e. Marking Services, Inc.
 - f. Panduit Corp.
2. Minimum Nominal Size:
 - a. 1-1/2 by 6 inches for raceway and conductors.
 - b. 3-1/2 by 5 inches for equipment.

- B. Self-Adhesive Labels: Reflective vinyl, thermal transfer-printed, black letters, weather- and UV-resistant, pressure-sensitive adhesive labels, configured for intended use and location.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Brady Corporation.
 - b. Brother International Corporation.
 - c. emedco.
 - d. Ideal Industries, Inc.
 - e. Marking Services, Inc.
 - f. Panduit Corp.
 - 2. Minimum Nominal Size:
 - a. 6 by 3 inches for light fixture decal (refer to drawing details).

2.4 TAPES AND STENCILS

- A. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Carlton Industries, LP.
 - b. Champion America.
 - c. HellermannTyton.
 - d. Ideal Industries, Inc.
 - e. Marking Services, Inc.
 - f. Panduit Corp.
- B. Self-Adhesive Vinyl Tape: Colored, heavy duty, waterproof, fade resistant; not less than 3 mils thick by 1 to 2 inches wide; compounded for outdoor use.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Brady Corporation.
 - b. Carlton Industries, LP.
 - c. emedco.
 - d. Marking Services, Inc.
- C. Underground-Line Warning Tape:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. Brady Corporation.
 - b. Ideal Industries, Inc.
 - c. LEM Products Inc.
2. Color and Printing:
- a. Comply with ANSI Z535.1, ANSI Z535.2, ANSI Z535.3, ANSI Z535.4, and ANSI Z535.5.
 - b. Inscriptions for Red-Colored Tapes: "CAUTION – BURIED ELECTRIC LINE BELOW".
3. Tag:
- a. Detectable three-layer laminate, consisting of a printed pigmented polyolefin film, a solid aluminum-foil core, and a clear protective film that allows inspection of the continuity of the conductive core; bright colored, continuous-printed on one side with the inscription of the utility, compounded for direct-burial service.
 - b. Width: 3 inches.
 - c. Overall Thickness: 5 mils.
 - d. Foil Core Thickness: 0.35 mil.
 - e. Weight: 28 lb/1000 sq. ft..
 - f. Tensile according to ASTM D 882: 70 lbf and 4600 psi.

2.5 SIGNS

A. Laminated Acrylic or Melamine Plastic Signs:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Brady Corporation.
 - b. Carlton Industries, LP.
 - c. Emedco.
2. Engraved legend.
3. Thickness:
 - a. For signs up to 20 sq. in., minimum 1/16 inch thick.
 - b. For signs larger than 20 sq. in., 1/8 inch thick.
 - c. Engraved legend with black letters on white face.
 - d. Self-adhesive.
 - e. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.

2.6 CABLE TIES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. HellermannTyton.
 - 2. Ideal Industries, Inc.
 - 3. Marking Services, Inc.
 - 4. Panduit Corp.

- B. General-Purpose Cable Ties: Fungus inert, self-extinguishing, one piece, self-locking, and Type 6/6 nylon.
 - 1. Minimum Width: 3/16 inch.
 - 2. Tensile Strength at 73 Deg F according to ASTM D 638: 12,000 psi.
 - 3. Temperature Range: Minus 40 to plus 185 deg F.
 - 4. Color: Black, except where used for color-coding.

- C. UV-Stabilized Cable Ties: Fungus inert, designed for continuous exposure to exterior sunlight, self-extinguishing, one piece, self-locking, and Type 6/6 nylon.
 - 1. Minimum Width: 3/16 inch.
 - 2. Tensile Strength at 73 Deg F according to ASTM D 638: 12,000 psi.
 - 3. Temperature Range: Minus 40 to plus 185 deg F.
 - 4. Color: Black.

- D. Plenum-Rated Cable Ties: Self-extinguishing, UV stabilized, one piece, and self-locking.
 - 1. Minimum Width: 3/16 inch.
 - 2. Tensile Strength at 73 Deg F according to ASTM D 638: 7000 psi.
 - 3. UL 94 Flame Rating: 94V-0.
 - 4. Temperature Range: Minus 50 to plus 284 deg F.
 - 5. Color: Black.

2.7 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Verify and coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and operation and maintenance manual. Use consistent designations throughout Project.

- B. Install identifying devices before installing acoustical ceilings and similar concealment.
- C. Verify identity of each item before installing identification products.
- D. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and operation and maintenance manual.
- E. Apply identification devices to surfaces that require finish after completing finish work.
- F. Install signs with approved legend to facilitate proper identification, operation, and maintenance of electrical systems and connected items.
- G. Self-Adhesive Identification Products: Before applying electrical identification products, clean substrates of substances that could impair bond, using materials and methods recommended by manufacturer of identification product.
 - 1. Provide light pole decal sample for approval.
 - 2. Obtain final light pole decal designation plan from the campus prior to printing decals.
- H. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.
- I. Emergency Operating Instruction Signs: Install instruction signs with white legend on a red background with minimum 3/8-inch-high letters for emergency instructions at equipment used for power transfer.
- J. Elevated Components: Increase sizes of labels, signs, and letters to those appropriate for viewing from the floor.
- K. Accessible Fittings for Raceways: Identify the covers of each junction and pull box of the following systems with the wiring system legend and system voltage. System legends shall be as follows:
 - 1. "EMERGENCY POWER."
 - 2. "POWER."
- L. Vinyl Wraparound Labels:
 - 1. Secure tight to surface at a location with high visibility and accessibility.
 - 2. Attach labels that are not self-adhesive type with clear vinyl tape, with adhesive appropriate to the location and substrate.
- M. Self-Adhesive Wraparound Labels: Secure tight to surface of raceway or cable at a location with high visibility and accessibility.
- N. Self-Adhesive Labels:
 - 1. On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and operation and maintenance manual.
 - 2. Unless otherwise indicated, provide a single line of text with 1/2-inch-high letters on 1-1/2-inch-high label; where two lines of text are required, use labels 2 inches high.

- O. Self-Adhesive Vinyl Tape: Secure tight to surface at a location with high visibility and accessibility.
 - 1. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding.
- P. Underground Line Warning Tape:
 - 1. During backfilling of trenches, install continuous underground-line warning tape directly above cable or raceway at 6 to 8 inches below finished grade. Use multiple tapes where width of multiple lines installed in a common trench or concrete envelope exceeds 16 inches overall.
 - 2. Install underground-line warning tape for direct-buried cables and cables in raceways.
- Q. Laminated Acrylic or Melamine Plastic Signs:
 - 1. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
 - 2. Unless otherwise indicated, provide a single line of text with 1/2-inch-high letters on minimum 1-1/2-inch-high sign; where two lines of text are required, use signs minimum 2 inches high.
- R. Cable Ties: General purpose, for attaching tags, except as listed below:
 - 1. Outdoors: UV-stabilized nylon.
 - 2. In Spaces Handling Environmental Air: Plenum rated.

3.2 IDENTIFICATION SCHEDULE

- A. Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment. Install access doors or panels to provide view of identifying devices.
- B. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, pull points, and locations of high visibility. Identify by system and circuit designation.
- C. Accessible Fittings for Raceways and Cables within Buildings: Identify the covers of each junction and pull box of the following systems with self-adhesive labels containing the wiring system legend and system voltage. System legends shall be as follows:
 - 1. "POWER."
 - 2. "LIGHTING."
- D. Power-Circuit Conductor Identification, 600 V or Less: For conductors in pull and junction boxes, and handholes, use self-adhesive vinyl tape to identify the phase.

1. Locate identification at changes in direction, at penetrations of walls and floors, at 50-foot maximum intervals in straight runs, and at 25-foot maximum intervals in congested areas.
- E. Control-Circuit Conductor Termination Identification: For identification at terminations, provide self-adhesive wraparound labels with the conductor designation.
- F. Locations of Underground Lines: Underground-line warning tape for power, lighting, communication, and control wiring and optical-fiber cable.
- G. Warning Labels for Indoor Cabinets, Boxes, and Enclosures for Power and Lighting: Self-adhesive equipment labels.
1. Apply to exterior of door, cover, or other access.
 2. For equipment with multiple power or control sources, apply to door or cover of equipment, including, but not limited to, the following:
 - a. Controls with external control power connections.
- H. Equipment Identification Labels:
1. Indoor Equipment: Self-adhesive label, Laminated acrylic or melamine plastic sign.
 2. Outdoor Equipment: Laminated acrylic or melamine sign.

END OF SECTION 260553

SECTION 265613 - LIGHTING POLES AND STANDARDS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Poles and accessories for support of luminaires.

1.2 DEFINITIONS

- A. EPA: Equivalent projected area.
- B. Luminaire: Complete luminaire.
- C. Pole: Luminaire-supporting structure.
- D. Standard: See "Pole."

1.3 ACTION SUBMITTALS

- A. Product Data: For each pole and accessory.
- B. Shop Drawings:
 - 1. Include plans, elevations, sections, and mounting and attachment details.
 - 2. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 3. Detail fabrication and assembly of poles and pole accessories.
 - 4. Foundation construction details, including material descriptions, dimensions, anchor bolts, support devices, and calculations, signed and sealed by a professional engineer licensed in the state of installation.
 - 5. Anchor bolt templates keyed to specific poles and certified by manufacturer.
 - 6. Method and procedure of pole installation. Include manufacturer's written installations.

1.4 INFORMATIONAL SUBMITTALS

- A. Pole and Support Component Certificates: Signed by manufacturers of poles, certifying that products are designed for indicated load requirements according to AASHTO LTS-6-M and that load imposed by luminaire and attachments has been included in design. The certification shall be based on design calculations signed and sealed by a professional engineer.
- B. Material test reports.

- C. Field quality-control reports.
- D. Sample warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data for pole-mounted accessories.

1.6 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of pole(s) that fail in materials or workmanship; that corrode; or that fade, stain, perforate, erode, or chalk due to effects of weather or solar radiation within a specified warranty period. Manufacturer may exclude lightning damage, hail damage, vandalism, abuse, or unauthorized repairs from special warranty period.

- 1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Structural Characteristics: Comply with AASHTO LTS-6-M.
- B. Dead Load: Weight of luminaire and its horizontal and vertical supports, and supporting structure, applied according to AASHTO LTS-6-M.
- C. Ice Load: Load of 3 lbf/sq. ft., applied according to AASHTO LTS-6-M for applicable areas on the Ice Load Map.
- D. Wind Load: Pressure of wind on pole and luminaire, calculated and applied according to AASHTO LTS-6-M.
 - 1. Basic wind speed for calculating wind load for poles 50 feet high or less is 100 mph.
- E. Strength Analysis: For each pole, add 2.5 to the actual EPA to account for pole attachments, then multiply by a factor of 1.1 to obtain the EPA to be used in pole selection strength analysis.
- F. Luminaire Attachment Provisions: Comply with luminaire manufacturers' mounting requirements. Use stainless-steel fasteners and mounting bolts unless otherwise indicated.

2.2 ALUMINUM POLES – POLE ARM MOUNTING TYPE

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Lithonia

2. Cooper Lighting, an Eaton business.
 3. Gardco
 4. US Architectural.
- B. Poles: Seamless, extruded structural tube complying with ASTM B 221, Alloy 6063-T6, with access handhole in pole wall.
1. Shape: square.
 2. Mounting Provisions: Butt flange for bolted mounting on foundation or breakaway support.
- C. Pole-Top Tenons: Fabricated to support luminaire or luminaires and brackets indicated, and securely fastened to pole top.
- D. Grounding and Bonding Lugs: Bolted 1/2-inch threaded lug, complying with requirements in Section 260526 "Grounding and Bonding for Electrical Systems," listed for attaching grounding and bonding conductors of type and size listed in that Section, and accessible through handhole.
- E. Fasteners: Galvanized steel, size and type as determined by manufacturer. Corrosion-resistant items compatible with support components.
1. Materials: Compatible with poles and standards as well as to substrates to which poles and standards are fastened and shall not cause galvanic action at contact points.
 2. Anchor Bolts, Leveling Nuts, Bolt Caps, and Washers: Hot-dip galvanized after fabrication unless otherwise indicated.
- F. Handhole: Oval shaped, with minimum clear opening of 2-1/2 by 5 inches, with cover secured by stainless-steel captive screws.
- G. Powder-Coat Finish: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" recommendations for applying and designating finishes.
1. Surface Preparation: Clean surfaces to comply with SSPC-SP 1 to remove dirt, oil, grease, and other contaminants that could impair powder coat bond. Grind welds and polish surfaces to a smooth, even finish. Remove mill scale and rust, if present, from uncoated steel, according to SSPC-SP 5/NACE No. 1 or SSPC-SP 8.
 2. Powder coat shall comply with AAMA 2604.
 - a. Electrostatic applied powder coating; single application with a minimum 2.5- to 3.5-mils dry film thickness; cured according to manufacturer's instructions. Coat interior and exterior of pole for equal corrosion protection.
 - b. Color: Refer to Luminaire Schedule on drawings.

2.3 POLE ACCESSORIES

- A. Base Covers: Manufacturers' standard metal units, finished same as pole, and arranged to cover pole's mounting bolts and nuts.
- B. In-line fuses in pole base.

2.4 MOUNTING HARDWARE

- A. Anchor Bolts: Manufactured to ASTM F 1554, Grade 55, with a minimum yield strength of 55,000 psi.
 - 1. Galvanizing: Hot dip galvanized according to ASTM A 153, Class C.
- B. Nuts: ASTM A 563, Grade A, Heavy-Hex
 - 1. Galvanizing: Hot dip galvanized according to ASTM A 153, Class C.
 - 2. Four nuts provided per anchor bolt, shipped with nuts pre-assembled to the anchor bolts.
- C. Washers: ASTM F 436, Type 1.
 - 1. Galvanizing: Hot dip galvanized according to ASTM A 153, Class C.
 - 2. Two washers provided per anchor bolt.

2.5 GENERAL FINISH REQUIREMENTS

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 POLE FOUNDATION

- A. Pre-Cast Foundations: Factory fabricated, with structural steel complying with ASTM A 36/A 36M and hot-dip galvanized according to ASTM A 123/A 123M; and with top-plate and mounting bolts to match pole-base flange and strength required to support pole, luminaire, and accessories. Concrete, reinforcement, and formwork are specified in Section 033000 "Cast-in-Place Concrete."
- B. Anchor Bolts: Install plumb using manufacturer-supplied template, uniformly spaced.

3.2 POLE INSTALLATION

- A. Concrete Pole Foundations: Set anchor bolts according to anchor-bolt templates furnished by pole manufacturer. Concrete materials, installation, and finishing requirements are specified in Section 033000 "Cast-in-Place Concrete."
- B. Foundation-Mounted Poles: Mount pole with leveling nuts and tighten top nuts to torque level according to pole manufacturer's written instructions.

- C. Poles and Pole Foundations Set in Concrete-Paved Areas: Install poles with a minimum 6-inch-wide, unpaved gap between the pole or pole foundation and the edge of the adjacent concrete slab. Fill unpaved ring with pea gravel. Insert material to a level 1 inch below top of concrete slab.
- D. Raise and set pole using web fabric slings (not chain or cable) at locations indicated by manufacturer.

3.3 CORROSION PREVENTION

- A. Aluminum: Do not use in contact with earth or concrete. When in direct contact with a dissimilar metal, protect aluminum using insulating fittings or treatment.
- B. Steel Conduits: Comply with requirements in Section 260533 "Raceways and Boxes for Electrical Systems." In concrete foundations, wrap conduit with 0.010-inch-thick, pipe-wrapping plastic tape applied with a 50-percent overlap.

3.4 GROUNDING

- A. Ground Metal Poles and Support Structures: Comply with requirements in Section 260526 "Grounding and Bonding for Electrical Systems."
 - 1. Install grounding electrode for each pole unless otherwise indicated.
 - 2. Install grounding conductor pigtail in the base for connecting luminaire to grounding system.

END OF SECTION 265613

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SECTION 265619 - LED EXTERIOR LIGHTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Exterior solid-state luminaires that are designed for and exclusively use LED lamp technology.
2. Luminaire supports.

1.2 DEFINITIONS

- A. CCT: Correlated color temperature.
- B. CRI: Color rendering index.
- C. Fixture: See "Luminaire."
- D. IP: International Protection or Ingress Protection Rating
- E. Lumen: Measured output of lamp and luminaire, or both.
- F. Luminaire: Complete lighting unit, including lamp, reflector, and housing.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of luminaire.

1.4 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Plans, drawn to scale and coordinated.
- B. Sample warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.
 1. Provide a list of all lamp types used on Project. Use ANSI and manufacturers' codes.

1.6 FIELD CONDITIONS

- A. Mark locations of exterior luminaires for approval by construction manager prior to the start of luminaire installation.

1.7 WARRANTY

- A. Warranty: Manufacturer and Installer agree to repair or replace components of luminaires that fail in materials or workmanship within specified warranty period.

1. Warranty Period: two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 LUMINAIRE REQUIREMENTS

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. NRTL Compliance: Luminaires shall be listed and labeled for indicated class and division of hazard by an NRTL.
- C. FM Global Compliance: Luminaires for hazardous locations shall be listed and labeled for indicated class and division of hazard by FM Global.
- D. UL Compliance: Comply with UL 1598 and listed for wet location.
- E. CRI of minimum 80 . CCT of 4100 K.
- F. L70 lamp life of 50,000 hours.
- G. Nominal Operating Voltage: Refer to Luminaire Schedule on drawings.
- H. In-line Fusing: Separate pole base mounted in-line fuse for each luminaire.
- I. Source Limitations: Obtain luminaires for each fixture type from single source from a single manufacturer.

2.2 POLE ARM MOUNTING TYPE

- A. Manufacturers: Subject to compliance with requirements, provide products by the listed design make series or the design make equals as indicated on the drawing Luminaire Schedule.
- B. Refer to Luminaire Schedule on drawings.

2.3 MATERIALS

- A. Metal Parts: Free of burrs and sharp corners and edges.
- B. Sheet Metal Components: Corrosion-resistant. Form and support to prevent warping and sagging.
- C. Doors, Frames, and Other Internal Access: Smooth operating and free of light leakage under operating conditions. Designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally when secured in operating position. Doors shall be removable for cleaning.
- D. Lens and Refractor Gaskets: Use heat- and aging-resistant resilient gaskets to seal and cushion lenses and refractors in luminaire doors.
- E. Reflecting surfaces shall have minimum reflectance as follows unless otherwise indicated:
 - 1. White Surfaces: 85 percent.
 - 2. Specular Surfaces: 83 percent.
 - 3. Diffusing Specular Surfaces: 75 percent.
- F. Housings:
 - 1. Rigidly formed, weather- and light-tight enclosure that will not warp, sag, or deform in use.

2.4 FINISHES

- A. Variations in Finishes: Noticeable variations in finishes are unacceptable.
- B. Luminaire Finish: Manufacturer's standard paint applied to factory-assembled and -tested luminaire before shipping. Where indicated, match finish process and color of pole or support materials.

PART 3 - EXECUTION

3.1 GENERAL INSTALLATION REQUIREMENTS

- A. Comply with NECA 1.
- B. Wiring Method: Install wiring in raceways.
- C. Install luminaires level, plumb, and square.
- D. Coordinate layout and installation of luminaires with other construction.
- E. Adjust luminaires that require field adjustment or aiming. Include adjustment of photoelectric device to prevent false operation of relay by artificial light sources, favoring a north orientation.

- F. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables" and Section 260533 "Raceways and Boxes for Electrical Systems" for wiring connections and wiring methods.

3.2 CORROSION PREVENTION

- A. Aluminum: Do not use in contact with earth or concrete. When in direct contact with a dissimilar metal, protect aluminum by insulating fittings or treatment.
- B. Conduits: Comply with Section 260533 "Raceways and Boxes for Electrical Systems."

3.3 IDENTIFICATION

- A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

3.4 FIELD QUALITY CONTROL

- A. Inspect each installed luminaire for damage. Replace damaged luminaires and components.
- B. Perform the following tests and inspections:
 - 1. Operational Test: After installing luminaires, switches, and accessories, and after electrical circuitry has been energized, test units to confirm proper operation.
 - 2. Verify operation of photoelectric controls.
- C. Illumination Tests:
 - 1. Operational Test: After installing luminaires, switches, and accessories, and after electrical circuitry has been energized, test units to confirm proper operation.
- D. Luminaire will be considered defective if it does not pass tests and inspections.
- E. Prepare a written report of tests, inspections, observations, and verifications indicating and interpreting results. If adjustments are made to lighting system, retest to demonstrate compliance with standards.

3.5 DEMONSTRATION

- A. Train Owner's maintenance personnel to adjust, operate, and maintain luminaires.

END OF SECTION 265619

SECTION 310100 – MAINTENANCE OF EARTHWORK

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Project Survey and Layout. Includes construction stake-out, control points, and maintenance of all layout points during the Project.
- B. Utility Locating Service
- C. Utility Test Pits
- D. Off-site Disposal of Excess Soil Materials
- D. Moisture and Dust Control
- E. Temporary Resurfacing of Roadways
- F. Restoration of existing facilities damaged as a result of this project. Items included but are not limited to: curbs, concrete walks, and gutters, underground utilities, signs, ditches and swales.

1.2 PRE-CONSTRUCTION REQUIREMENT. The Contractor shall video the entire project site and all areas that will require restoration and supply the Owner's Representative with a copy of the video on a compact disk, or similar data electronic storage device.

1.3 RELATED DOCUMENTS - Refer to Section 321000 (Earthmoving).

PART 2 - PRODUCTS

2.1 RESTORATION OF SURFACES. The quality of materials and the performance of work used in the restoration shall be equal to or better than the condition of each before the work began. In the event a surface or material requires restoration and the material is not specified under this Contract, the Contractor shall notify the Owner's Representative and submit to the Owner's Representative his proposed restoration plan. Such restoration shall be reviewed by the Owner's Representative.

2.2 TEMPORARY RESURFACING

- A. Temporary resurfacing shall consist of crushed stone at such depth as is necessary to withstand the traffic to which it is subjected. Where concrete pavements are removed, the broken stone shall be surfaced with "cold patch." In areas where temporary asphalt walkways are specified, the Contractor shall provide a minimum of 2 ½" of Hot Mix Asphalt Binder over 6" of crushed stone (A1) subbase material.

- B. For dust protection, the Contractor shall treat all surfaces not covered with cold patch with calcium chloride (liquid or granular) as approved by the Owner's Representative.
- 2.3 OTHER TYPES OF PAVEMENTS AND SURFACES. All pavement other than brick and concrete, and all gravel, crushed stone and other types of roadway surfaces, shall be replaced with new materials except where, in the opinion of the Owner's Representative, materials salvaged from stone or gravel roadways have been removed, handled, and stored in such a manner that their original quality has been maintained, in which case such salvaged materials may be used to the extent available in the lower portion of the roadway surfaces after proper screening to remove dust and other excess material.
- 2.4 ROADSIDE DITCHES. All disturbed ditches and swales shall be regraded to their original grades. Ditches shall be topsoiled and seeded with new materials; topsoil (free from weeds, sticks, and stones) and a seed mix consistent with the remaining lawns.
- 2.5 MATERIALS FOR CONSTRUCTION STAKEOUT. The Contractor shall supply all stakeout materials.

PART 3 - EXECUTION

3.1 TEMPORARY RESURFACING AND REPAVING

- A. Immediately upon completion of refilling of the trench or excavation, the Contractor shall place a temporary pavement over all disturbed areas of the road, driveways, and other travelled places where the original surface has been disturbed as a result of this project. The temporary pavement shall be of a character satisfactory in all respects and safe for public travel. The surface of the temporary pavement shall conform to the street grades. Mounding up of any material over a trench and covering the same with loose broken stone will not be considered in compliance with the above requirements.
- B. The temporary pavement shall be placed and maintained by the Contractor in a safe and satisfactory condition until such time as the permanent pavement is completed. The Contractor shall immediately remove and restore to a satisfactory condition any and all such pavements as they become unsatisfactory and not in accordance with the terms and intent of the Specifications.

3.2 CONCRETE WALKS

- A. Concrete walks removed in connection with or damaged as a result of construction operations under the Contract shall be replaced with new construction. Refer to Section 321313 (Cement Concrete Paving).

- 3.3 CURBS, GUTTERS, AND CULVERTS. The Contractor shall, at his own expense, permanently repair and relay all curbs, gutters, roadway and driveway culverts where the same have been broken, damaged, or disturbed by the Contractor in executing any of the work covered by the Contract or by or on account of said work. The Contractor shall restore the same in a manner, to a condition and with material, either new or old as required, similar and equal to what existed before the start of this project.

- 3.4 WORK ADJACENT TO EXISTING BUILDINGS. Contractor shall take care to protect existing building features when earthwork and soil compaction is performed near buildings. Additional care and coordination with the Owner's Representative may be required.
- 3.5 DUST CONTROL. The Contractor shall minimize dust from disturbed soil surfaces or other materials that can cause onsite or off-site damage, health hazards, and traffic safety problems. Dusty conditions resulting from the Contractor's operations shall be corrected at no additional cost to the Owner.
- 3.6 UNDERGROUND FACILITIES. The Contractor shall repair or replace all disturbed underground facilities by methods approved by the Owner's Representative and regulatory agencies.
- 3.7 CONSTRUCTION STAKEOUT. The Contractor shall perform all construction stakeout work necessary to establish, spatially position, measure, and verify the locations of existing and proposed terrain features of the Project.
- A. The following types of Survey Operations shall be performed under the direction of a New York State Licensed Land Surveyor:
- 1.) Location of property or highway boundary markers
 - 2.) Tie measurements to, or resetting of control points
- B. The following types of Survey Operations shall be performed under the direction of a New York State Licensed Land Surveyor or New York State Licensed Professional Engineer:
- 1.) Establishment or reestablishment of primary or secondary control which shall be used for:
 - a. Establishing location for horizontal or vertical roadway alignment.
 - b. Establishing location for the horizontal or vertical alignment of a structure, or feature for which the coordinates or elevations are indicated on the contract drawings.
 - c. Establishing reference station for Global Positioning System (GPS) control work.
 - 2.) Establishing new horizontal or vertical roadway alignment in the field from contract control either by conventional stakeout methods or by use of automated equipment operations. If the Contractor utilizes automated equipment for stakeout, he shall coordinate his locations and grades with the Owners Representative by utilizing an acceptable benchmark method to ensure proper grading.
- 3.8 UTILITY LOCATING SERVICE.

Due to the fact that the majority of the underground utilities at the project site are owned by the Campus, the Contractor shall locate utilities not covered under the Dig Safely New York program. As part of this project, the Contractor shall procure the services of an Underground Utility Locator Service. Utility Locator Service (ULS) shall meet the following requirements:

- At least 5 years experience of providing underground utility location services. Firm providing Utility Locating Service shall be acceptable to the Owner.
- The ULS shall provide the equipment and competent operation required for Ground Penetrating Radar (GPR), electro-magnetic induction, as well as standard pipe and cable locating techniques.

- ULS shall review all utility plans, construction plans, and record plans that are provided by the Owner to determine the precise location of underground utilities in areas that are scheduled for excavation by the Contractor.
- Provide materials required to mark the locations of underground utilities in the field for the Contractor.
- Observe all Federal, State, and Campus Safety Regulations.
- Coordinate utility locating and marking with Utility Location that is performed as part of the Dig Safe New York (811) program.
- Record position of buried utilities and provide to the Owner's Representative.

Cost of the Utility Locating Service will be the responsibility of the Contractor. Contractor shall notify the Utility Locating Service such that all required utility clearances are performed prior to the start of any excavation.

3.9 UTILITY TEST PITS

The Contractor shall excavate and backfill test pits in order to determine existing underground utility type, size, elevation and where utility crossings or new utility connections to existing facilities are proposed. The Contractor shall excavate and backfill test pits in a manner approved by the Owner's Representative (DASNY Representative) that prevents damage to wrappings, coatings or other protective coverings, such as by hand digging, vacuum excavation or similar non-destructive locating equipment. The limits of the excavation shall be those sufficient to determine existing utility type, size and/or condition.

Contractor shall coordinate with the Owner's Representative regarding the location of the exposed utility. At a minimum, this effort will include the following:

- Coordinate work with Utility Locator Service.
- Installing a wood stake (nominal 2" x 4" x 24" long) into the ground, as close as possible, at a known offset from the utility.
- Measure and record the horizontal offset distance from the stake to the utility, the vertical depth from the top of stake to top of utility, the size of the exposed utility, and its apparent material composition.
- Protect wood stake from damage.
- Backfill test pits in kind with the surrounding soils with suitable material as defined in Section 310513. Existing utility to be bedded and covered in kind, with Lining Material as defined in Section 310516.

Utility Test Pit Excavation work shall include the furnishing all labor, materials and equipment necessary to excavate, locate, and backfill the test pit and replace any pavement, shoulder and sidewalk courses, subbase courses, curbs, drives, lawns and other top surfaces required to complete the work.

3.10 DISPOSAL OF EXCESS SOIL MATERIALS OFF-SITE

- A. If the Contractor elects to remove soils from the site, it will be the Contractor's responsibility to legally dispose of these materials off Owner's property.

It will be the Contractor's responsibility to coordinate a location for off-site fill materials, and ensure that the following requirements are adhered to at the off-site location (as applicable):

- Releases from Property Owners.
- Approvals and permits from the local municipality.
- Permits from the U.S. Army Corps of Engineers and NYS DEC if the fill site is near streams, wetlands, or floodplains.
- Adherence to the NYS DEC requirements for stormwater discharges from the fill site , as they apply to General Permit No. GP-0-20-001 (permit for stormwater discharges from construction activity).
- Installation of erosion and sediment control features at the fill site, and grading / stabilization of the fill site.

END OF SECTION 310100

SECTION 310513 – SOILS FOR EARTHWORK

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Suitable soil material for fill, backfill and embankment construction.
2. Structural Fill for various locations of backfill and embankment construction.
3. Controlled low strength material.
4. Bioretention Soil for placement at bioretention basin and dry swale construction.

B. Related Sections:

1. Division 31 Section 310516 “Aggregates for Earthwork” for various stone and sand aggregates used as part of this project.
2. Division 31 Section 312000 “Earth Moving” for excavation, backfill, placement and compaction of various soil types.
3. Division 31 Section 312319 “Dewatering” for construction dewatering.
4. Division 31 Section 315000 “Excavation Support and Protection” for temporary excavation support and protection systems.

1.2 DEFINITIONS

A. Backfill: Soil material used to fill an excavation.

1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
2. Final Backfill: Backfill placed over initial backfill to fill a trench.

B. Borrow Soil: Satisfactory (suitable) soil imported from off-site for use as fill or backfill.

C. Fill: Soil materials used to raise existing grades.

D. Structural Fill: Material as defined in Section 310516, Type A1 Aggregate.

E. Select Granular Fill: Material as defined in Section 310516, Type A2 Aggregate. On site soil materials meeting this requirement can be substituted for this use if suitable material is available. On site material will be considered by the Owner’s Representative for substitution if the Contractor can demonstrate that on site material can be modified to meet the requirements of this material.

F. Controlled Low Strength Material (Flowable Fill): A flowable, self-compacting, low density cementitious material which shall gain sufficient strength to be walked on and buried within a day, and which shall remain excavatable by hand tools after curing.

G. Bioretention Soil: Soil for use in dry swales & bioretention basins / rain gardens that consists of a uniform mix of sand and topsoil, free of stones, stumps, roots (or other objects larger than 2” in diameter), and free of noxious weeds.

- H. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material 3/4 cu. yd. or more in volume that exceed a standard penetration resistance of 100 blows/2 inches when tested by a geotechnical testing agency, according to ASTM D1586.
- I. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- J. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- K. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.3 SUBMITTALS

- A. Product Data: For each type of the following manufactured products required:
 - 1. Soil Materials (if imported from off-site).
- B. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:
 - 1. Classification according to ASTM D2487.
 - 2. Laboratory compaction curve according to ASTM D 1557.

1.4 QUALITY ASSURANCE

- A. Geotechnical Testing Agency Qualifications: Qualified according to ASTM E329 and ASTM D3740 for testing indicated.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Suitable Material (Subsoil Type S-1) – Suitable Material is defined as soil material whose composition is satisfactory for embankment construction. The moisture content of the material has no bearing upon this designation. In general, any mineral (inorganic) soil, blasted or broken rock and similar materials of natural or man made (i.e. recycled) origin, including mixtures thereof, are considered suitable materials. Determination of whether a specific natural or man made material is a suitable material shall be made by the Owner’s Representative on the above basis.

Furthermore, Suitable Material shall be soil that falls within Classification Groups GW, GP, GM, SW, SP, SM according to ASTM D2487 “*Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)*”, or a combination of these groups.

1. Material shall be free of rock or gravel larger than 3-inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
 2. Soil classified as GM, SP or SM can be used; however, these soil types can be moisture sensitive and difficult to work with. No additional expense shall be incurred by the Owner if the Contractor chooses to use these materials and the required compaction cannot be achieved.
- C. Unsuitable Material – Unsuitable Material is defined as any material containing vegetable or organic matter, such as muck, peat, organic silt, topsoil, or sod, that is not satisfactory for embankment construction. Certain man made deposits of industrial waste, toxic or contaminated materials, sludge, landfill, or other materials may also be determined to be unsuitable, based on an evaluation by the Owner’s Representative.
1. Soils that are Unsuitable Material are further defined as soil within the Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D2487 “*Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)*”, or a combination of these groups.
 2. Broken pieces or sections of asphalt pavement, macadam, or similar construction debris material that contains petroleum based products are also considered unsuitable for this Project.
 3. The moisture content of a soil has no bearing upon the designation of a soil material as being an unsuitable or suitable soil. (Refer to Section 312000, Earthmoving).
- D. Controlled Low Strength Material (CLSM) – Controlled Low Strength Material (flowable fill) shall have a compressive strength between 40 psi and 150 psi. Contractor to certify that the Controlled Low Strength Material meets the following requirements:
1. Portland Cement, Type 1 or Type 2: Shall comply with ASTM C150. Pozzolans and other cementitious materials shall comply with ASTM C618. Note that if CLSM is to be placed around ductile iron pipes, it shall not contain fly ash. If not placed near metals, Class “C” or Class “F” Fly Ash can be used.
 2. Water: Use water, which is potable and free from deleterious amounts of alkali, acid, and organic materials, which would adversely affect the setting time or strength of the CLSM.
 3. Aggregates: 100% passing the No. 10 sieve and a maximum of 20% passing the No. 200 sieve.
 4. Do not place CLSM in temperatures less than 40° F, nor when freezing temperatures are expected with 24 hours. If these conditions cannot be met, consult with the manufacturer and determine procedures and protection necessary to ensure proper CLSM installation and curing.
- E. Bioretention Soil – Defined as uniform mix of three (3) parts sand and one (1) part topsoil, by volume. This soil shall be free of stones, stumps, roots (or other objects larger than 2” in diameter), and free of noxious weeds. The Bioretention soil shall have a pH range of 5.2 to 7.6, and an organic content of 6% to 7%. In order to meet the requirement of 6% to 7% organic content in the bio soils, the Contractor may add suitable compost material to achieve this requirement for organic content. Compost that is used shall meet the requirements of NYSDOT 2013 Standard Specifications Section 713-15.

1.) Topsoil shall be onsite material when possible amended to meet the following general requirements:

- pH range between 5.5 and 7.6
- Organic Content not less than 6% or more than 12% (dry weight basis)
- Percent of topsoil (by weight) that passes through a No. 200 (75-µm) US standard sieve is 20% to 65%.

Additional topsoil requirements are included in Specification Section 329113.

2.) Requirements for Sand:

- Meeting the requirements of Sand, A9 Aggregate, as defined in Section 310516.

3.) Soil Amendments to increase organic content shall be peat moss. Peat moss shall be commercially produced, composed of the partly decomposed stems and leaves of any or several species of sphagnum moss.

4.) The Contractor shall provide the Owner's Representative with a copy of the soil test results that show the overall gradation, organic content, and concentration of soil phosphorus. (Concentration of soil phosphorus will not be a basis for acceptance or rejection of the bioretention soil, but is required for the Owner's records).

F. Topsoil – Refer to Section 329113 for additional requirements. Topsoil may be naturally occurring or may be manufactured.

If naturally occurring topsoil exists on the site it shall be the surface layer of soil removed during soil stripping operations.

All topsoil shall be free from refuse, material toxic or otherwise deleterious to plant growth, subsoil, sod clumps, seeds or other viable propagules of invasive plants, woody vegetation and stumps, roots, brush, refuse, stones, clay lumps, or similar objects.

Construction and demolition debris as classified under 6 NYCRR Part 360, other than uncontaminated land clearing debris, shall not be used to manufacture or amend topsoil. Sod and herbaceous growth such as grass and non-invasive weeds need not be removed but shall be thoroughly broken up and mixed with the soil during handling or manufacturing operations.

Existing topsoil stripped and stockpiled shall be tested and amended by the Contractor as needed to meet the requirements of Specification Section 329113.

PART 3 - EXECUTION

3.1 STORAGE OF SOIL MATERIALS - Refer to Section 312000 (Earthmoving).

3.2 PLACEMENT OF SOIL MATERIALS IN EMBANKMENT CONSTRUCTION

- Refer to Section 312000 (Earthmoving) for Embankment Construction.

END OF SECTION 310513

SECTION 310516 – AGGREGATES FOR EARTHWORK

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Aggregates for subgrades for pavements and utility installation.
2. Subbase course to be placed and compacted in advance of asphalt paving.
3. Aggregate Material for pipe bedding.
4. Fine Aggregate Material for conduit bedding.
5. Foundation Backfill Material.
6. Underdrain Filter Stone.
7. Stone Filling (Heavy & Medium) for Bank and Channel Protection.
8. Stone Filling (Light) for soil erosion control.

B. Related Sections:

1. Division 31 Section “Dewatering” for construction dewatering.
2. Division 31 Section “Excavation Support and Protection” for temporary excavation support and protection systems.
3. This Specification makes reference to the New York State Department of Transportation (NYSDOT) Standard Specifications, most recent version.

1.2 DEFINITIONS

- A. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.
- B. Lining Course: Aggregate layer placed around and above the installed pipe or underground utility in a trench.
- C. Medium and Fine Stone Filling: Shall consist of well graded stone placed as protective material on stream-banks, in channels and elsewhere, as required.
- D. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a Portland cement concrete pavement.
- E. Structural Fill: Subbase Course placed for the construction of the new building and exterior stairs.
- F. Underdrain Filter Stone: Shall consist of washed crushed stone, washed gravel gravel, or screened gravel (pea stone) that is similarly graded in size.

1.3 SUBMITTALS

- A. Product Data: For each type of the aggregate product required, certify that the material requirements in Part 2 of this Section are met.

- B. Materials Certificate: Certify that products meet or exceed the New York State Department of Transportation (NYSDOT) Standard Specifications requirements as follows:
 - 1. Section 203-2: Materials – Select Granular Fill.
 - 2. Section 304-2: Materials - Subbase Aggregate Course.
 - 3. Section 605-2: Materials - Underdrains.
 - 4. Section 620-2: Materials - Stone Filling for Bank and Channel Protection.

1.4 QUALITY ASSURANCE

- A. Furnish each aggregate material from single source throughout the Work
- B. Perform Work in accordance with the NYSDOT, Standard Specifications:
 - 1. Section 203: Select Granular Fill.
 - 2. Section 207: Geosynthetics.
 - 3. Section 304: Subbase Course.
 - 4. Section 605: Underdrain Filter Stone.
 - 5. Section 620: Bank and Channel Protection.
- C. Preinstallation Conference: Conduct conference at Project site.
- D. Material Test Reports: For Subbase (A1), Select Granular Fill (A2), and Bedding & Lining Course (A4) provide tests as follows:
 - 1. Laboratory compaction curve according to ASTM D 1557.

PART 2 - PRODUCTS

2.1 AGGREGATE MATERIALS

- A. Subbase Material: Coarse Aggregate Type A1: Conforming to NYSDOT Subbase Item 304.12, Type 2 Subbase. Certify that the Type A1 aggregate meets these requirements, as noted in Section 733-04 of the NYSDOT Materials Specifications.
- B. Select Granular Fill: Coarse Aggregate Type A2 (Gravel): Conforming to the material requirements for Select Granular Fill, NYSDOT Item 203.07. Certify that the Type A2 aggregate meets these requirements as noted in Section 733-11 of the NYSDOT Materials Specifications. A2 aggregate may include crushed concrete.
- C. Drainage Fill Material: Aggregate Type A3: Shall be a crushed angular washed stone that meets the material requirements as per Section 703-02 of the NYSDOT Standard Specifications for Coarse Aggregate. This material shall meet the size designation for # 2 Stone, as shown in Table 703-4 of Section 703-02 of the NYSDOT Standard Specifications.
- D. Bedding and Lining Course: Aggregate Type A4: Crushed Stone; ASTM D 2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve. Certify that the Type A4 aggregate meets these requirements.

- E. Underdrain Filter Stone: Fine Aggregate Type A5: Certify that this aggregate will meet the following requirements: Natural stone; washed, free of clay, shale, organic matter; graded in accordance with ASTM C136 (or NYSDOT Underdrain Type 1, Item 605.0901); to the following limits:
 - a. Minimum Size: 1/4 inch.
 - b. Maximum Size: 5/8 inch.
- F. Stone Filling (Heavy): Aggregate Type A6: Certify and furnish materials in accordance with NYSDOT 2006 Standard Specifications for Item 620.05.
- G. Stone Filling (Medium): Aggregate Type A7: Certify and furnish materials in accordance with NYSDOT 2006 Standard Specifications for Item 620.04.
- H. Stone Filling (Fine): Aggregate Type A8: Certify and furnish materials in accordance with NYSDOT 2006 Standard Specifications for Item 620.02.
- I. Sand: Fine Aggregate Type A9: Certify and furnish natural river or bank sand; free of silt, clay, loam, friable or soluble materials, and organic matter; graded in accordance with ASTM C136; within the following limits:

Sieve Size	Percent Passing
No. 4	100
No. 14	90 to 100
No. 200	0 to 5

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth moving operations.
- C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 STOCKPILING OF AGGREGATE MATERIALS

- A. Stockpile materials on site at locations designated by and coordinated with the Owner's Representative.
- B. Stockpile in sufficient quantities to meet Project schedule and requirements.
- C. Separate different aggregate materials with dividers or stockpile individually to prevent mixing.
- D. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.

- E. Remove stockpile at completion of work. Leave area in clean and neat condition. Grade site surface to prevent free standing surface water.

3.3 INSTALLATION OF SUBBASE COURSE

- A. Install granular subbase in accordance with NYSDOT Standard Specifications, Section 304-3 (Construction Details - Subbase Course) to compacted depth indicated in Contract Documents.
- B. Place subbase course on subgrades free of mud, frost, snow, or ice.
- C. Spread and place granular subbase in maximum 6-inch layers and compact to 95% modified proctor maximum density with a 10 ton minimum self propelled tandem roller.
- D. Level and contour surfaces to elevations and gradients indicated in Contract Drawings.
- E. If moisture content is too low, add water to assist compaction. If excess water is apparent, remove contaminated granular subbase and aerate to reduce moisture content.
- F. Use mechanical tamping equipment in areas inaccessible to rolling equipment.

3.4 GRANULAR SUBBASE TOLERANCES

- A. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.
- B. Scheduled Compacted Thickness: Within 1/4 inch.
- C. Variation from True Elevation: Within 1/2 inch.

3.5 GRANULAR SUBBASE FIELD QUALITY CONTROL

- A. Compaction testing will be performed in accordance with ANSI/ASTM D1556, ANSI/ASTM D1557, or ASTM D2922.
- B. If tests indicate work does not meet specified requirements, remove work, replace and retest.
- C. Frequency of Tests: One minimum plus one for every 5,000 sq. ft. of pavement.

3.6 PLACEMENT, GENERAL

- A. Place geotextile fabric in accordance with NYSDOT Standard Specifications, Section 207-3 (Construction Details - Prefabricated Composite Drains for Structures) as indicated on Drawings.
- B. Place stone filling in accordance with NYSDOT Standard Specifications, Section 620-3 (Construction Details - Bank and Channel Protection) at embankment slopes as indicated on Drawings.

- C. Install to thickness as indicated on Drawings.

3.7 DISPOSAL OF MATERIAL

- A. Materials displaced thru the use of the above operations shall be disposed of by the Contractor offsite. The cost of such clean-up and removal shall be included in the price of the materials. Refer to Specification Section 310100 for off-site disposal of excess soil materials.

END OF SECTION 310516

SECTION 310519 – GEOSYNTHETICS FOR EARTHWORK

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Geotextile Separation Fabric.
 - 2. Geotextile Stabilization Fabric
 - 3. Geogrid

1.2 DEFINITIONS

- A. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.
- B. Geotextile Fabric: Includes Geotextile Stabilization and Geotextile Separation.

1.3 QUALITY ASSURANCE

- A. Furnish each aggregate material from single source throughout the Work
- B. Manufacturer's Certificate: Certify that products meet or exceed the New York State Department of Transportation (NYSDOT) Standard Specifications (most recent version) requirements as follows:
 - 1. Section 207-2: Materials -Geotextiles and Prefabricated Composite Drains for Structures.
- C. Perform Work in accordance with the NYSDOT (current version) Standard Specifications:
 - 1. Section 207: Geotextiles and Prefabricated Composite Drains for Structures.
- D. Preinstallation Conference: Conduct conference at Project site.

PART 2 - PRODUCTS & SUBMITTALS

2.1 MATERIALS

- A. Geosynthetic material brought to the project site shall be provided in rolls wrapped with covering for protection from mud, dirt, and debris.
- B. Geotextile Filter Fabric: (placed at temporary construction entrances for erosion control, and silt fence) Filter Fabric Type A shall be provided for installation at locations indicated on the drawings and as specified herein. Filter Fabric Type A shall be composed of high-tenacity polypropylene yarns, meeting the requirements of Mirafi® 500X or approved equal. The geotextile fabric shall be inert to commonly encountered chemicals; shall be resistant to mildew, rot, ultraviolet light, insects, and rodents; and shall have the indicated properties:

Physical Property	Test Method	Minimum Average Roll Value
Fabric Weight	ASTM D5261	4.0 oz / yd ²
Grab Strength	ASTM D4632	200 lb
Grab Elongation	ASTM D4632	15 %
Apparent Opening Size	CW-02215	40 (U.S. Standard Sieve Size)

At geotextile separation areas where a non-woven geotextile is specified, Contractor has option of provide Mirafi 140N or approved equal, or a material from item 2.1 C below.

C. Geotextile Separation Fabric: (place beneath roadway subbase) Shall be in accordance with the NYSDOT Approved List for Geosynthetics for Highway Construction, for the following parameters:

1. Geotextile Separation:
 - a. Meet requirements of Separation (S).
 - b. Default strength class 2.

D. Geotextile Stabilization Fabric: (place beneath Heavy, Medium, and Fine Stone Fill, (Aggregate Types A6, A7, and A8). Stabilization Fabric shall be in accordance with the NYSDOT Approved List for Geosynthetics for Highway Construction for the following parameters:

- a. Meet requirements of Stabilization (ST).
- b. Default strength class 1.

Product Submittal: Submit a geotextile fabric product that meets these requirements, and is on the NYSDOT Approved List.

E. Geogrid: (placement at undercut locations). Provide a load transfer capability in accordance with ASTM D6637 and ASTM D7737 (expressed as a percentage of ultimate tensile strength). Structural integrity of material to meet requirements of ASTM D4355 (resistant to chemical and ultra-violet degradation).

2.2 SUBMITTALS AND CERTIFICATIONS

A. Submittals and Certifications required are as follows:

1. Catalog data showing that the Geotextile Filter Fabric meets the requirements specified.
2. Catalog data showing that the Geotextile Separation Fabric meets the requirements specified, as well as verification that it is a material from the NYSDOT Approved List.
3. Catalog data showing that the Geotextile Stabilization Fabric meets the requirements specified, as well as verification that it is a material from the NYSDOT Approved List.
4. Catalog / Product data showing that the Geogrid material meets the noted ASTM requirements.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Place Geosynthetic Materials with reference to Division 31 Section 312000 "Earth Moving".

3.2 CONSTRUCTION METHODS

- A. Separation Fabric and Stabilization Fabric shall be installed in accordance with the details shown on the Contract Drawings and in accordance with the manufacturer's recommendations. Contractor shall protect fabric from exposure to sunlight during transportation and storage. After placement, the stabilization fabric shall not be left exposed for more than two weeks. Traffic or construction equipment shall not operate directly on the stabilization fabric. Seams on adjacent rolls shall be overlapped a minimum of 2 feet. Stabilization fabric which becomes torn or damaged shall be replaced or patched. The patch shall extend three feet beyond the perimeter of the torn or damaged area.

END OF SECTION 310519

SECTION 311000 - SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Attention is directed to the Contract and General Conditions and all Sections of Division 01 – General Requirements which are hereby made a part of the Specification.
- B. Examine all Drawings and all other Sections of the Specifications for requirements therein affecting the work of this Section.
- C. Coordinate work with that of all other trades affecting or affected by work of the Section. Cooperate with such trades to assure steady progress of all work under the Contract.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Protecting existing trees to remain.
 - 2. Removing existing trees.
 - 3. Clearing and grubbing.
 - 4. Removing above- and below-grade site improvements.
 - 5. Disconnecting, capping or sealing, and abandoning site utilities in place and removing site utilities.
- B. Related Sections include the following:
 - 1. Division 01 Section "Temporary Facilities and Controls" for temporary utilities, temporary construction and support facilities, temporary security and protection facilities, and temporary erosion and sedimentation control procedures.
 - 2. Division 02 Section "Selective Site Demolition" for demolition of features for the site improvements.
 - 3. Division 31 Section "Erosion and Sedimentation Controls" for erosion control.
 - 4. Division 31 Section "Earth Moving" for soil materials, excavating, backfilling, and site grading.
 - 5. Division 32 Section "Soil Preparation" for finish grading including preparing and placing planting soil mixes and testing of topsoil material.

1.3 DEFINITIONS

- A. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches (50 mm) in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.

- B. Tree Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

1.4 MATERIAL OWNERSHIP

- A. Except for materials indicated to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.5 SUBMITTALS

- A. Photographs or videotape, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.
- B. Record drawings, according to Division 01 Section "Project Record Documents," identifying and accurately locating capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6 QUALITY ASSURANCE

- A. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

1.7 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- B. Salvable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
- C. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.
- D. Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. Satisfactory Soil Materials: Requirements for satisfactory soil materials are specified in Division 31 Section "Earth Moving."
 - 1. Obtain approved borrow soil materials off-site when satisfactory soil materials are not available on-site.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Locate and clearly flag trees and vegetation to remain or to be relocated.
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to Erosion and Sediment Control Plan and Storm Water Pollution Prevention Plan.
- B. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- C. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 TREE PROTECTION

- A. Erect and maintain temporary fencing around tree protection zones before starting site clearing. Remove fence when construction is complete.
 - 1. Do not store construction materials, debris, or excavated material within fenced area.
 - 2. Do not permit vehicles, equipment, or foot traffic within fenced area.
 - 3. Maintain fenced area free of weeds and trash.
- B. Do not excavate within tree protection zones, unless otherwise indicated.

- C. Where excavation for new construction is required within tree protection zones, hand clear and excavate with air spade to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible.
 - 1. Cover exposed roots with burlap and water regularly.
 - 2. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
 - 3. Coat cut faces of roots more than 1-1/2 inches (38 mm) in diameter with an emulsified asphalt or other approved coating formulated for use on damaged plant tissues.
 - 4. Backfill with soil as soon as possible.
- D. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by Architect.

3.4 UTILITIES

- A. Owner will arrange for disconnecting and sealing indicated utilities that serve existing structures before site clearing, when requested by Contractor.
 - 1. Verify that utilities have been disconnected and capped before proceeding with site clearing.
- B. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.
 - 1. Arrange with utility companies to shut off indicated utilities.
 - 2. Owner will arrange to shut off indicated utilities when requested by Contractor.
- C. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Owner, Engineer and Owner's Representative not less than four days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Engineers written permission.
- D. Excavate for and remove underground utilities indicated to be removed.

3.5 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction.
 - 1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 - 2. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
 - 3. Grind stumps and remove roots, obstructions, and debris extending to a depth of 18 inches (450 mm) below exposed subgrade.
 - 4. Use only hand methods for grubbing within tree protection zone.

5. Chip removed tree branches and dispose of off-site.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
 1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches (200 mm), and compact each layer to a density equal to adjacent original ground.

3.6 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.
 2. Paint cut ends of steel reinforcement in concrete to remain to prevent corrosion.

3.7 DISPOSAL

- A. Disposal: Remove unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.
 1. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities.

END OF SECTION 311000

SECTION 312000 EARTH MOVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Attention is directed to the Contract and General Conditions and all Sections of Division 01 – General Requirements which are hereby made a part of the Specification.
- B. Examine all Drawings and all other Sections of the Specifications for requirements therein affecting the work of this Section.
- C. Coordinate work with that of all other trades affecting or affected by work of the Section. Cooperate with such trades to assure steady progress of all work under the Contract.

1.2 SUMMARY

- A. The Work of this Section includes all labor, materials, equipment and services necessary to complete the earthwork as shown on the drawings and/or specified herein, including but not necessarily limited to the following:
 - 1. Laying out and staking all lines and levels.
 - 2. Preparing subgrades for slabs-on-grade, building foundations, walks, pavements, lawns, and plantings.
 - 3. Base course for pavements.
 - 4. Subsurface drainage backfill for walls.
 - 5. Dewatering.
 - 6. Pneumatic trenching (air spade) within drip line of trees to remain.
 - 7. Separation and filter fabrics. Preparing sub-grades for slabs-on-grade, walks, pavements, turf, grasses and plants.
 - 8. Excavating and backfilling for buildings and structures.
 - 9. Subsurface drainage backfill for walls and trenches.
 - 10. Excavating and backfilling trenches for utilities and pits for buried utility structures.
 - 11. Undercutting
 - 12. Placement and compaction of soil fill materials for embankment construction.
 - 13. Rock Excavation
- B. Related Sections include the following:
 - 1. Division 31 Section “Soil Erosion and Sedimentation Control” for the Stormwater Pollution Prevention Plan and stormwater discharge permit requirements.

2. Division 31 Section "Site Clearing" for temporary erosion and sedimentation control measures, site stripping, grubbing, and removal of above- and below-grade improvements and utilities.
3. Division 31 Section "Maintenance of Earthwork"
4. Division 31 Section "Soils for Earthwork"
5. Division 31 Section "Aggregate for Earthwork"
6. Division 31 Section "Geosynthetics for Earthwork"
7. Division 32 Section "Soil Preparation" for finish grading, including preparing and placing topsoil and planting soil for lawns.
8. Division 32 Section "Plants" for planting bed establishment and tree and shrub pit excavation and planting.
9. Division 32 Section "Turf & Grasses" for lawn establishment.
10. Division 33 Sections "Storm Drainage", "Sanitary Sewerage" and "Water Distribution" for utility improvements.

1.3 DEFINITIONS

- A. Backfill: Soil materials used to fill an excavation.
 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Bedding Course: Layer placed over excavated subgrade in a trench before laying a pipe.
- C. Borrow: Satisfactory soil imported from off-site for use as fill or backfill.
- D. Drainage Course: Layer supporting slab-on-grade used to minimize capillary flow of pore water.
- E. Excavation: Removal of material encountered above subgrade elevations.
 1. Additional Excavation: Excavation below subgrade elevations as directed by Landscape Architect. Additional excavation and replacement will be paid for according to Contract provisions for changes in the Work.
 2. Bulk Excavation: Excavations more than 10 feet (3 m) in width and pits more than 30 feet (9 m) in either length or width.
 3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated dimensions without direction by the Engineer. Unauthorized excavation, as well as remedial work directed by Engineer, shall be without additional compensation.
- F. Fill: Soils materials used to raise existing grades.
- G. Rock: Rock materials in beds, ledges, unstratified masses, and conglomerate deposits and boulders of rock material exceeding 1 cu. yd. (0.76 cu. m) for bulk excavation or ¾ cu. yd. (0.57 cu. m) for footing, trench, and pit excavation that cannot be removed by rock excavating equipment equivalent to the following in size and performance ratings, without systematic drilling, ram hammering, ripping, or blasting, when permitted:

1. Excavation of Footings, Trenches, and Pits: Late-model, track-mounted hydraulic excavator; equipped with a 42-inch (1065 mm) wide, short-tip-radius rock bucket; rated at not less than 120-hp (89 kW) flywheel power with bucket-curling force of not less than 25,000 lbf (111 kN) and stick-crowd force of not less than 18,700 lbf (83 kN); measured according to SAE J-1179.
 2. Bulk Excavation: Late-model, track-mounted loader; rated at not less than 210 hp (157 kW) flywheel power and developing a minimum of 45,000 lbf (200 kN) breakout force; measured according to SAE J-732.
- H. Structures: Building, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- I. Subbase course: Course placed between the subgrade and a cement concrete or hot mix asphalt pavement.
- J. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below base, drainage fill, or topsoil materials.
- K. Utilities include on-site underground pipes, conduits, ducts, cables, and appurtenant structures.

1.4 QUALITY ASSURANCE

- A. Pre-excavation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Meetings."

1.5 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities servicing facilities occupied by Owner or others unless permitted in writing by Owner's Representative and then only after arranging to provide temporary utility services according to requirements indicated:
1. Do not proceed with utility interruptions without Owner's Representative's written permission.
 2. Contact Dig Safely New York (U-Dig NY) at 1-800-962-7962 (811) before starting site clearing or excavation operations.
 3. Coordinate with Owner and utility companies to shut off services if lines are active.
 4. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult utility owner immediately for directions. Cooperate with Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of utility owner.

PART 2 - PRODUCTS

- A. Refer to Specification Sections 310100, 310513, 310516, and 310519.

2.2 PNEUMATIC EXCAVATION (AIR SPADE)

- A. Pneumatic Excavating Tool: Excavation within drip line of trees to remain shall be performed through the use of a pneumatic excavation tool with the following requirements:
1. The high air velocity excavation tool shall be specifically designed to fracture, pulverize, and displace porous and semi-porous soils without harming or causing damage to tree roots, existing subsurface utilities or other non-porous objects. The Contractor shall submit catalog cuts from the manufacturer verifying that the pneumatic excavation tool meets the following criteria:
 - a. Rated Operating Pressure 6.2 - 7.0 bar
 - b. Air Stream Velocity at Cutting Head 2,200 – 2,500 km/hr
 - c. Air Displacement 4,000 – 5,000 L/min
- B. Air Compressor: The air compressor may be either a portable or truck-mounted unit and shall be adequately sized as required to power the pneumatic excavation tool in accordance with the manufacturer's recommendations for the pneumatic excavating tool.
- C. Vacuum Truck: A vacuum truck should be used to collect excavated spoil directly from the trench or pit.
- D. Containment Structure: To prevent the spread of excavated soil onto adjacent roadways and areas beyond the designated work zone limits, the Contractor shall provide a mobile structure or barrier to contain the material dislodged by the pneumatic excavation tool from the trench or pit. Timber or corrugated metal shields, tents supported on tubular frames, or other structures as approved by Landscape Architect may be used

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine the areas and conditions where earthwork is to be installed and correct any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions are corrected to permit proper installation of the work.

3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.

- C. Provide erosion-control measures to prevent erosion or displacement of soils and discharge or soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 DEWATERING

- A. Refer to Specification Section 312319. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
 - 1. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of subgrades and foundations. Provide and maintain pumps, well points, sumps, suction and discharge lines, and other dewatering system components necessary to convey water from excavations. Maintain water levels below base of excavation to control hydrostatic pressure on subgrade soils.
 - 2. Establish and maintain temporary drainage ditches and other diversion outside excavation limits to convey rain water and water removed from excavations to collecting or run-off areas. Do not use trench excavations as temporary drainage ditches.
 - 3. Do not discharge sediment laden water into the adjoining storm or sanitary sewer system or open swales. Pump sediment laden water from excavations into a portable sediment tank or a high-strength, non-woven geotextile fabric bag. Size portable sediment tanks in accordance with the New York Guidelines for Urban Erosion and Sediment Control.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
 - 2. Install a dewatering system as needed to keep subgrades dry and convey ground water away from excavations. Maintain until dewatering is no longer required.

3.4 EXPLOSIVES

- A. Explosives: Do not use explosives.

3.5 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavation to subgrade elevations regardless of the character of surface and subsurface conditions encountered, including rock, soil materials, and obstructions.
 - 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
- B. Stability of Excavations: Slope sides of excavations to comply with local codes and ordinances having jurisdiction. Shore and brace where sloping is not possible because of space restrictions

or stability of material excavated. Maintain sides and slopes of excavations in safe condition until completion of backfilling.

- C. Material Storage: Stockpile satisfactory excavated materials where directed until required for backfill or fill. Place, grade and shape stockpiles for proper drainage.
 - 1. Locate and retain soil materials away from edge of excavations. Do not store within drip line of trees indicated to remain.
 - 2. Dispose of excess soil material and waste materials not re-used.

3.6 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch (25 mm). Extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
 - 1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
 - 2. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions within a tolerance of plus or minus 1 inch. Do not disturb bottom of excavations intended for bearing surface.

3.7 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated cross section, elevations, and grades.

3.8 APPROVAL OF SUBGRADE

- A. When excavation has reached required subgrade elevations, notify Geotechnical Engineer who will make an inspection of conditions.
- B. If Geotechnical Engineer determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
- C. Proof-roll subgrade below the building slabs and pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Proof-rolling is to be done in the presence of the project Geotechnical Engineer after excavation to required subgrade elevations. Do not proof-roll wet or saturated subgrades.
 - 1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
 - 2. Proof-roll with a self propelled roller in non-vibratory mode weighing at least 14,000 lbs.

3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Geotechnical Engineer, and replace with compacted structural fill as directed.

D. Additional Excavation:

1. If unsuitable bearing materials are encountered at required subgrade elevations, carry excavations deeper and replace excavated material as directed by the Geotechnical Engineer. Excavation of unsuitable material must extend laterally beyond the edge of the footing or slab for a distance equal to or greater than the required depth of the excavation.
2. Removal of unsuitable material and its replacement as directed will be paid on basis of contract conditions relative to changes in work.
3. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect.

3.9 UNAUTHORIZED EXCAVATION

- A. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimension without specific direction of Geotechnical Engineer. Unauthorized excavation, as well as remedial work directed by Geotechnical Engineer, shall be at Contractor's expense.
- B. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill may be used when approved by Geotechnical Engineer.
 1. Fill unauthorized excavation under other construction or utility pipe as directed by Engineer.

3.10 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow materials and satisfactory excavated soil materials. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.11 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 1. Surveying locations of underground utilities for record documents.
 2. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
 3. Inspecting and testing underground utilities.

4. Removing concrete formwork.
5. Removing trash and debris.

B. Coordinate backfilling with utilities testing.

C. Install warning tape directly above utilities, 18 inches below finished grade, except 6 inches below subgrade under pavements and slabs

3.12 FILL

A. Preparation: Remove vegetation, topsoil, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface before placing fills.

B. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.

C. Place and compact fill material in layers to required elevations as follows:

1. Under grass and planted areas, use satisfactory soil material.
2. Under base course for walks and pavements, use satisfactory soil material.
3. Under footings and foundations, use Granular Base NYSDOT Type 2 (Type A1 Aggregate, as per Section 310516). Under footings and foundations, use Structural Fill to existing grade elevation. All fill placed above existing grade elevation is to be Lightweight Structural Fill. Reference Specification Section 312353, Lightweight Aggregate Structural Fill.

3.13 MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within 2 percent of optimum moisture content.

1. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
2. Remove and replace, or scarify and air-dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.14 COMPACTION OF BACKFILLS AND FILLS

A. Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

- B. Place backfill and fill materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil to not less than the following percentages of maximum dry unit weight according to ASTM D 1557:
 - 1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches (300 mm) of existing subgrade and each layer of backfill or fill material at 95 percent of Modified Proctor at +/- 2% optimum moisture content.
 - 2. Under walkways, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill material at 95 percent.
 - 3. Under lawn or unpaved areas, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill material at 95 percent.
 - 4. For utility trenches, compact each layer of initial and final backfill soil material at 95 percent.

3.15 GRADING

- A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 - 1. Provide a smooth transition between adjacent existing grades and new grades.
 - 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 - 1. Lawn or Unpaved Areas: Plus or minus 1 inch (25 mm).
 - 2. Pavements: Plus or minus 1/4 inch (13 mm).

3.16 SUBBASE COURSES

- A. Place subbase course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place subbase course under pavements and walks as follows:
 - 1. Install separation geotextile on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.
 - 2. Place subbase course material over subgrade under hot-mix asphalt pavement.
 - 3. Shape subbase course to required crown elevations and cross-slope grades.
 - 4. Place subbase course 6 inches or less in compacted thickness in a single layer.
 - 5. Place subbase course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.

6. Compact subbase course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.
- C. Pavement Shoulders: Place shoulders along edges of subbase and base course to prevent lateral movement. Construct shoulders, at least 12 inches wide, of satisfactory soil materials and compact simultaneously with each subbase and base layer to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

3.17 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing.
- B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
- C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Geotechnical Engineer.
- D. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed as the following locations and frequencies:
1. Paved Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 200 sq. ft. (186 sq. m) or less of paved area, but in no case fewer than three tests.
 2. Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least 1 test for every 2000 sq. ft. or less of building slab, but in no case fewer than 3 tests.
 3. Foundation Wall Backfill: At each compacted backfill layer, at least 1 test for each 100 feet or less of wall length, but no fewer than 2 tests.
 4. Trench Backfill: At each compacted initial and final backfill layer, at least 1 test for each 150 feet or less of trench length, but no fewer than 2 tests.

3.18 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and re-establish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.

1. Scarify or remove and replace soil material to depth as directed by the Owner's Representative; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible.
- D. Protection of Persons and Property: Barricade or steel plate open excavations occurring as part of this work and post with warning lights.
 1. Operate warning lights as recommended by authorities having jurisdiction.
 2. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthworks operations.

3.19 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property. Refer to Specification Section 310100.

END OF SECTION 312000

SECTION 312319 - DEWATERING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes construction dewatering.
- B. This Section also includes the use of cofferdams, as required to remove and divert water during the installation of culvert pipes near existing water sources.

1.2 PERFORMANCE REQUIREMENTS

- A. Dewatering Performance: Furnish and install a dewatering system of sufficient size and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of ground water and permit excavation and construction to proceed.

1.3 QUALITY ASSURANCE

- A. Perform work in accordance with the following Sections:
 - 1. Section 312000: Earth Moving
 - 2. Section 312500: Soil Erosion and Sedimentation Control.
 - 3. Section 315000: Excavation Support and Protection.
- B. Regulatory Requirements: Comply with New York State Department of Environmental Conservation (NYSDEC) regulations for storm water pollution control before beginning dewatering.
- C. Preinstallation Conference: Conduct conference at Project site prior to discharge of water. Meet with the DASNY Site Representative and the Stormwater Inspector.

PART 2 - PRODUCTS

2.1 COFFERDAMS

- A. Contractor has the option of utilizing a cofferdam system for runoff control. Material options for cofferdams shall include:
 - 1. A commercially designed system manufactured specifically for the control of water.
 - 2. A system of temporary steel sheeting, meeting the requirements of ASTM A328M. Temporary steel sheeting may be used, provided that it is in suitable condition, as determined by the Owner's Representative.

3. Tightly sealed, impermeable sand bags may be used if demonstrated by the Contractor that it's application will be suitable for the height of water and type of flow. Sand bags shall be of a reinforced geotextile with ties. No burlap bags shall be used. Sand or gravel may be used as the fill material in the bags. Gravel shall meet the requirements of Type A4 or A5 Aggregate, as per Section 310516. Sand shall meet the requirements of Type A9 Aggregate, as per Section 310516. All materials used for sand/gravel bags shall be double bagged, inversely inserted and each bag individually tied to prevent leakage.
4. No soil laden water shall be in the cofferdam discharge.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Provide temporary grading to facilitate dewatering and control of surface water.
- B. Monitor dewatering systems continuously.
- C. Protect and maintain temporary erosion and sedimentation controls, which are specified in Division 31 Section "Site Clearing" during dewatering operations.
- D. Install dewatering system utilizing pump equipment, filter material gradation, valves, appurtenances, water disposal, and surface-water controls.
 1. Use filters or other means to prevent pumping of fine sands or silts from the subsurface.
 2. Dewatering must be done so that the velocity of the discharged water doesn't cause scouring of the receiving area.
 3. Discharge water from dewatering pumps shall not be directly discharged without treatment to remove silt and velocity from the groundwater.
- E. Provide an adequate system to lower and control ground water to permit excavation, construction of structures, and placement of fill materials on dry subgrades.
 1. Do not permit open-sump pumping that leads to loss of fines, soil piping, subgrade softening, and slope instability.
 2. Maintain water table at least 2 ft below bottom of excavations at all times.
- F. Cofferdams shall be maintained in a dewatered condition during foundation construction or culvert pipe and end section installation. The placement of foundation concrete shall not be impeded by water standing or flowing within the cofferdam.

Dewatering equipment and any additional bracing shall be of adequate quality and capacity and shall be so arranged as to permit their proper functioning in connection with the cofferdam. Dewatering equipment and bracing shall be so located to permit construction of the structure in accordance with the plans.

END OF SECTION 312319

SECTION 312500 – SOIL EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

- 1.1 Drawings and General Provisions of the Contract, including the Stormwater Pollution Prevention Plan (SWPPP) for this Project apply to this Section.
- 1.2 WORK INCLUDED
 - A. Installation of Erosion Control Facilities.
 - B. Inspection of Erosion Control Facilities.
 - C. Maintenance of Erosion Control Facilities.
 - D. Repairs to Erosion Control Facilities.
 - E. Removal and disposal of temporary erosion control facilities, where directed by the SWPPP.
- 1.3 REFERENCES
 - A. *New York Standards and Specifications for Erosion and Sediment Controls*, 2016 Version.
 - B. *New York State Stormwater Management Design Manual*, 2010. New York State Department of Environmental Conservation (NYS DEC).
 - C. *NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activity*, Permit No. GP-0-20-001.
 - D. Stormwater Pollution Prevention Plan (SWPPP) for this Project.
- 1.4 REFERENCED REQUIREMENTS
 - A. Local (if applicable)
 - B. County (if applicable)
 - C. State - New York State Department of Environmental Conservation (NYSDEC)
 - D. Federal - United States Army Corps of Engineers (USACE)
- 1.5 ENVIRONMENTAL REQUIREMENTS/PROTECTION OF EXISTING FACILITIES
 - A. Protect the following:
 - 1. Existing storm sewers
 - 2. Wetlands - USCOE and NYSDEC
 - 3. Existing drainage ways

PART 2 - PRACTICES

- A. Refer to New York Standards and Specifications for Erosion and Sediment Controls, 2016 Version.
- B. Refer to the Stormwater Pollution Prevention Plan (SWPPP) for this Project. The SWPPP is a part of the Contract Documents.

PART 3 - EXECUTION

3.1 GENERAL

- A. The Contractor is responsible for controlling sediment from leaving the project site. The Owner will have a qualified inspector perform weekly SWPPP inspections. Contractor to make any corrections that are noted in the SWPPP inspection reports.
- B. Before beginning any work on-site, the Contractor shall become familiar with the SWPPP, and sign the required certifications that are in the SWPPP. Contractor shall keep a copy of the SWPPP on-site at all times.
- B. Pollutants such as fuels, lubricants, bitumens, raw sewage, chlorine, and other harmful materials shall be handled and disposed of by approved methods and shall not be discharged into rivers, streams, impoundments, wetlands, or into natural or man-made channels leading thereto. Washwater or waste from concrete mixing or curing operations shall not be allowed to enter live streams, etc.
- C. In the event of a conflict between these specification requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.
- D. In case of repeated failures on the part of the Contractor to control pollution/erosion, the right shall be reserved by the Owner to employ outside assistance to provide the necessary corrective measures. Such incurred costs, plus related engineering costs, shall be charged to the Contractor and appropriate deductions made to the Contractor's progress payments.

3.2 INSTALLATION OF EROSION CONTROL FACILITIES

- A. The installation of all erosion control facilities shall be in accordance with the SWPPP unless an alternative construction specification and installation detail has been provided or otherwise directed by the Consultant.
- B. The location and method of construction of all erosion control facilities shall be the responsibility of the Contractor unless an erosion control plan and specifications are provided.
- C. All erosion control facilities shall be installed prior to beginning any work unless a construction sequence has been provided. The erosion control facilities will be installed in accordance with the construction sequence unless otherwise directed by the Engineer.
- D. Coordinate locations of concrete washout areas with the DASNY Site Representative.

3.3 INSPECTION OF EROSION CONTROL FACILITIES

- A. An inspection of all erosion control facilities shall be made by the Contractor at least once every seven calendar days and/or within 24 hours of the end of rain event where the total rainfall is 0.5

inches or greater whichever comes first or as otherwise specified. Inspections are further outlined in the Project SWPPP.

3.4 MAINTENANCE OF EROSION CONTROL FACILITIES

- A. Maintenance of all erosion control facilities will be the Contractor's responsibility throughout the project, as outlined in the SWPPP.
- B. Maintenance of all erosion control facilities must be provided after every inspection or as required.
- C. Remove and dispose of temporary erosion control facilities as directed by the Engineer. Remove excess silt and/or debris as directed by the SWPPP.

3.5 REPAIRS TO EROSION CONTROL FACILITIES

- A. All repairs to the erosion control facilities (temporary and permanent, as noted in the SWPPP inspection reports) shall be made by the Contractor at no cost to the Owner.
- B. All repairs shall be made immediately upon notification by the Engineer, Qualified Inspector, or when the Contractor finds an erosion control facility not properly functioning or in need of repair or maintenance.

END OF SECTION 312500

SECTION 312500 – SOIL EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

- 1.1 Drawings and General Provisions of the Contract, including the Stormwater Pollution Prevention Plan (SWPPP) for this Project apply to this Section.
- 1.2 WORK INCLUDED
 - A. Installation of Erosion Control Facilities.
 - B. Inspection of Erosion Control Facilities.
 - C. Maintenance of Erosion Control Facilities.
 - D. Repairs to Erosion Control Facilities.
 - E. Removal and disposal of temporary erosion control facilities, where directed by the SWPPP.
- 1.3 REFERENCES
 - A. *New York Standards and Specifications for Erosion and Sediment Controls*, 2016 Version.
 - B. *New York State Stormwater Management Design Manual*, 2010. New York State Department of Environmental Conservation (NYS DEC).
 - C. *NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activity*, Permit No. GP-0-20-001.
 - D. Stormwater Pollution Prevention Plan (SWPPP) for this Project.
- 1.4 REFERENCED REQUIREMENTS
 - A. Local (if applicable)
 - B. County (if applicable)
 - C. State - New York State Department of Environmental Conservation (NYSDEC)
 - D. Federal - United States Army Corps of Engineers (USACE)
- 1.5 ENVIRONMENTAL REQUIREMENTS/PROTECTION OF EXISTING FACILITIES
 - A. Protect the following:
 - 1. Existing storm sewers
 - 2. Wetlands - USCOE and NYSDEC
 - 3. Existing drainage ways

PART 2 - PRACTICES

- A. Refer to New York Standards and Specifications for Erosion and Sediment Controls, 2016 Version.
- B. Refer to the Stormwater Pollution Prevention Plan (SWPPP) for this Project. The SWPPP is a part of the Contract Documents.

PART 3 - EXECUTION

3.1 GENERAL

- A. The Contractor is responsible for controlling sediment from leaving the project site. The Owner will have a qualified inspector perform weekly SWPPP inspections. Contractor to make any corrections that are noted in the SWPPP inspection reports.
- B. Before beginning any work on-site, the Contractor shall become familiar with the SWPPP, and sign the required certifications that are in the SWPPP. Contractor shall keep a copy of the SWPPP on-site at all times.
- B. Pollutants such as fuels, lubricants, bitumens, raw sewage, chlorine, and other harmful materials shall be handled and disposed of by approved methods and shall not be discharged into rivers, streams, impoundments, wetlands, or into natural or man-made channels leading thereto. Washwater or waste from concrete mixing or curing operations shall not be allowed to enter live streams, etc.
- C. In the event of a conflict between these specification requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.
- D. In case of repeated failures on the part of the Contractor to control pollution/erosion, the right shall be reserved by the Owner to employ outside assistance to provide the necessary corrective measures. Such incurred costs, plus related engineering costs, shall be charged to the Contractor and appropriate deductions made to the Contractor's progress payments.

3.2 INSTALLATION OF EROSION CONTROL FACILITIES

- A. The installation of all erosion control facilities shall be in accordance with the SWPPP unless an alternative construction specification and installation detail has been provided or otherwise directed by the Consultant.
- B. The location and method of construction of all erosion control facilities shall be the responsibility of the Contractor unless an erosion control plan and specifications are provided.
- C. All erosion control facilities shall be installed prior to beginning any work unless a construction sequence has been provided. The erosion control facilities will be installed in accordance with the construction sequence unless otherwise directed by the Engineer.
- D. Coordinate locations of concrete washout areas with the DASNY Site Representative.

3.3 INSPECTION OF EROSION CONTROL FACILITIES

- A. An inspection of all erosion control facilities shall be made by the Contractor at least once every seven calendar days and/or within 24 hours of the end of rain event where the total rainfall is 0.5

inches or greater whichever comes first or as otherwise specified. Inspections are further outlined in the Project SWPPP.

3.4 MAINTENANCE OF EROSION CONTROL FACILITIES

- A. Maintenance of all erosion control facilities will be the Contractor's responsibility throughout the project, as outlined in the SWPPP.
- B. Maintenance of all erosion control facilities must be provided after every inspection or as required.
- C. Remove and dispose of temporary erosion control facilities as directed by the Engineer. Remove excess silt and/or debris as directed by the SWPPP.

3.5 REPAIRS TO EROSION CONTROL FACILITIES

- A. All repairs to the erosion control facilities (temporary and permanent, as noted in the SWPPP inspection reports) shall be made by the Contractor at no cost to the Owner.
- B. All repairs shall be made immediately upon notification by the Engineer, Qualified Inspector, or when the Contractor finds an erosion control facility not properly functioning or in need of repair or maintenance.

END OF SECTION 312500

SECTION 315000 - EXCAVATION SUPPORT AND PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes temporary excavation support and protection systems.

1.2 RELATED DOCUMENTS

- A. 29 CFR 1926 Subpart P of "Safety and Health Regulations for Construction", as administered by the Federal Occupational Safety and Health Administration (OSHA).

1.3 SUMMARY

- A. Section includes temporary excavation support and protection systems.
- B. Related Sections:
 - 1. Division 31 Section 312000 "Earthmoving".
 - 2. Division 31 Section 312319 "Dewatering" for dewatering system for excavations.

1.4 PERFORMANCE REQUIREMENTS

- A. Design excavation support and protection system including comprehensive engineering analysis by a qualified Professional Engineer, as per Occupational Safety and Health Administration (OSHA) requirements.
- B. Install and maintain excavation support and protection systems without damaging existing buildings, structures, and site improvements adjacent to excavation.
- C. Prevent surface water from entering excavation by grading, dikes or other means.

1.5 ACTION SUBMITTALS

- A. Shop Drawings: For excavation support and protection system signed and stamped/sealed by a qualified Professional Engineer, including data analysis and calculations.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification data for qualified Professional Engineer and qualified Surveyor.
- B. Videotape (or video files) and photographs showing existing conditions of adjacent construction and site improvements that might be misconstrued as damage caused by the absence of, the installation of, or the performance of excavation support and protection systems. Submit before Work begins.
- C. Record drawings identifying and locating capped utilities and other subsurface structural, electrical, or mechanical conditions.

1.7 QUALITY ASSURANCE

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Review methods and procedures related to excavation support and protection system including, but not limited to, the following:
 - a. Geotechnical report of soil boring logs and soil analysis.
 - b. Existing utilities and subsurface conditions.
 - c. Proposed excavations.
 - d. Proposed equipment.
 - e. Monitoring of excavation support and protection system.
 - f. Working area location and stability.
 - g. Abandonment or removal of excavation support and protection system.

1.8 PROJECT CONDITIONS

- A. Interruption of Existing Utilities: Do not interrupt any utility serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility according to requirements indicated:
 - 1. Notify Owner and Owner's Representative no fewer than four (4) days in advance of proposed interruption of utility.
 - 2. Do not proceed with interruption of utility without Owner's written permission.
- B. Project-Site Information: A geotechnical report consisting of soil borings and gradations on soil samples has been prepared for this Project and is available for information only. The opinions expressed in this report are those of the geotechnical investigation and represent interpretations of subsoil conditions, tests, and results of analyses conducted by geotechnical engineer. Owner will not be responsible for interpretations or conclusions drawn from the data. Advance additional borings and conduct other exploratory operations necessary for excavation support and protection.
- C. Survey Work: Engage a qualified land surveyor to survey adjacent existing buildings, structures, and site improvements; establish exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.
 - 1. During installation of excavation support and protection systems, regularly resurvey benchmarks, maintaining an accurate log of surveyed elevations and positions for comparison with original elevations and positions. Promptly notify the Engineer if changes in elevations or positions occur or if cracks, sags, or other damage is evident in adjacent construction.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide materials that are either new or in serviceable condition.
- B. Structural Steel: ASTM A 36, ASTM A 690, or ASTM A 992.

- C. Steel Sheet Piling: ASTM A 328, ASTM A 572, or ASTM A 690; with continuous interlocks. Corners shall be roll-formed corner shapes with continuous interlock.
- D. Wood Lagging: Lumber, mixed hardwood, nominal rough thickness of 3 inches.
- E. Cast-in-Place Concrete: ACI 301, of compressive strength required for application as determined by the Professional Engineer in the design calculation.
- F. Reinforcing Bars: ASTM A 615, Grade 60, deformed.
- G. Tiebacks: Steel bars, ASTM A 722.
- H. Tiebacks: Steel strand, ASTM A 416.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that could develop during excavation support and protection system operations.
 - 1. Shore, support, and protect utilities encountered.
- B. Install excavation support and protection systems to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
 - 2. Contractor to determine the applicable type of sheeting to utilize when the protection of adjacent trees and buildings that are directly adjacent to the trenching is required, as shown on the project plans.
- C. Locate excavation support and protection systems clear of permanent construction so that forming and finishing of concrete surfaces are not impeded.
- D. Monitor excavation support and protection systems daily during excavation progress and for as long as excavation remains open. Promptly correct bulges, breakage, or other evidence of movement to ensure that excavation support and protection systems remain stable.
- E. Promptly repair damages to adjacent facilities caused by installing excavation support and protection systems.

3.2 TRENCH SHIELDS

- A. If applicable and suitable for type of work, provide a trench box or trench shield system that meets OSHA requirements.

3.3 SOLDIER PILES AND LAGGING

- A. Install steel soldier piles before starting excavation. Extend soldier piles below excavation grade level to depths adequate to prevent lateral movement. Space soldier piles at regular intervals not to exceed allowable flexural strength of wood lagging. Accurately align exposed faces of flanges to vary not more than 2 inches from a horizontal line and not more than 1:120 out of vertical alignment.
- B. Install wood lagging within flanges of soldier piles as excavation proceeds. Trim excavation as required to install lagging. Fill voids behind lagging with soil, and compact.
- C. Install wales horizontally at locations indicated on Drawings and secure to soldier piles.

3.4 SHEET PILING

- A. Before starting excavation, install one-piece sheet piling lengths and tightly interlock to form a continuous barrier. Accurately place the piling, using templates and guide frames unless otherwise recommended in writing by the sheet piling manufacturer. Limit vertical offset of adjacent sheet piling to 36 inches. Accurately align exposed faces of sheet piling to vary not more than 2 inches from a horizontal line and not more than 1:120 out of vertical alignment. Cut tops of sheet piling to uniform elevation at top of excavation if the sheet piling shall be a permanent structure.

3.5 TIEBACKS

- A. Tiebacks: Drill, install, grout, and tension tiebacks. Test load-carrying capacity of each tieback and replace and retest deficient tiebacks.
 - 1. Test loading shall be observed by a qualified professional engineer responsible for design of excavation support and protection system.
 - 2. Maintain tiebacks in place until permanent construction is able to withstand lateral soil and hydrostatic pressures.

3.6 BRACING

- A. Bracing: Locate bracing to clear columns, floor framing construction, and other permanent work. If necessary to move brace, install new bracing before removing original brace.
 - 1. Do not place bracing where it will be cast into or included in permanent concrete work unless otherwise approved by the Owner's Representative.
 - 2. Install internal bracing, if required, to prevent spreading or distortion of braced frames.
 - 3. Maintain bracing until structural elements are supported by other bracing or until permanent construction is able to withstand lateral earth and hydrostatic pressures.

3.7 REMOVAL AND REPAIRS

- A. Remove excavation support and protection systems when construction has progressed sufficiently to support excavation and bear soil and hydrostatic pressures. Remove in stages to avoid disturbing underlying soils or damaging structures, pavements, facilities, and utilities.

1. Fill voids immediately with approved backfill compacted to density specified in Division 31 Section 312000 "Earth Moving."
2. Repair or replace, as approved by Owner's Representative, adjacent work damaged or displaced by removing excavation support and protection systems.

END OF SECTION 315000

SECTION 320116 - COLD MILLING AND ASPHALT PAVING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

- Furnishing all labor equipment and materials necessary to mill pavement areas at the locations and depths as shown on the Contract Drawings.

- All pavement millings and debris shall be disposed of off-site, per the Contractor's recycling program.

B. Related Sections:

1. Section 321200 - Flexible Paving
2. Section 321723 - Pavement Markings
3. Section 340133 – Maintenance and Protection of Traffic

1.2 REFERENCES

New York State Department of Transportation (NYSDOT):

1. Standard Specifications, most recent published version.

1.3 SUBMITTALS

None

PART 2 PRODUCTS

2.1 MATERIALS

- A. Asphalt Pavement: Refer to Section 321200. Hot Mix Asphalt to be installed over the milled pavement shall meet the material requirement in Section 321200 for Top Course.
- B. Tack Coat shall meet the requirements in Section 321200.

PART 3 EXECUTION

3.1 GENERAL

- A. Pavement Milling work is to be performed as per Section 490 of the NYSDOT Standard Specifications (most recent version).
- B. Contractor is to locate, mark and protect all existing grates, covers, frames, etc.
- C. All milled surfaces to be cleaned and shall receive a tack coat prior to paving.
- D. Contractor to mill existing asphalt to a depth sufficient to allow a minimum compacted depth of 1-1/2" of new asphalt top course. Hot Mix Asphalt Binder and trueing and leveling courses will also be required to establish profile grade at certain areas.
- E. All milled material shall be immediately removed from the milled surfaces and adjacent surfaces. Surfaces shall be cleaned of all fines and dust prior to re-opening to traffic. Milled surfaces shall be re-cleaned again, immediately prior to tack coat and paving.
- F. The Contractor shall maintain drainage at catch basins that are milled around.
- G. Milled surfaces to be overlaid with hot mix asphalt (HMA) concrete shall be covered with at least a single layer of HMA before the end of the paving season.
- H. Contractor shall protect and maintain traffic during milling and paving operations. Temporary signage and warning devices shall be placed and maintained 24 hours a day. The Owner's Representative shall be notified on a daily basis of anticipated traffic restrictions, and schedule.
Pavement Milling Activities shall be scheduled with the Owner and Owner's Representative at least 1 week in advance of the planned activity, and re-confirmed at least one day before any traffic restrictions.

END OF SECTION 320116

SECTION 321200 - FLEXIBLE PAVING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Saw cutting pavements.
 - 2. Hot Mix Asphalt (HMA) paving.
 - 3. Hot Mix Asphalt (HMA) paving overlay.
 - 4. Tack Coat.

- B. Related Sections:
 - 1. Division 31 Section "Earth Moving" for subgrade preparation.
 - 2. Division 31 Section "Aggregates for Earthwork" for aggregate subbase.
 - 3. Division 32 Section "Cold Milling and Asphalt Paving"
 - 4. Division 32 Section "Pavement Markings"

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
 - 1. Job-Mix Designs: For each job mix proposed for the Work submit material product data and HMA design.

- B. Manufacturer's Certificate:
 - 1. Certify HMA Products meet or exceed New York State Department of Transportation (NYSDOT) 2022 Standard Specifications (1/01/2022 version):
 - a. Section 401: Plant Production.
 - b. Section 402: Hot Mix Asphalt (HMA) Pavements.
 - c. Section 407: Tack Coat

- C. Provide an Environmental Product Declaration for each HMA mix to be provided.

1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A paving-mix manufacturer with NYSDOT approved materials and batch plant equipment.

- B. Installer: Company specializing in performing work of this section with minimum three years experience.

- C. Perform work in accordance with the following NYSDOT Jan. 1, 2022 Standard Specifications:
 - 1. Section 402: HMA Pavements.
 - 2. Section 407: Tack Coat.

- D. Mixing Plant:
 - 1. Obtain materials from same source throughout.
 - 2. Conform to the following NYSDOT Jan. 1, 2022 Standard Specifications:
 - a. Section 401: Plant Production.
 - b. Section 402: Hot Mix Asphalt (HMA) Pavements.
- E. Preinstallation Conference: Conduct conference at Project site.

1.4 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
 - 1. Perform work in accordance with NYSDOT 2022 Standard Specifications, Section 402, Table 402-1 – Temperature Requirements (HMA Pavements).

PART 2 - PRODUCTS

2.1 AGGREGATES

- A. Aggregate for Base, Binder, and Top Course Mix: In accordance with NYSDOT Jan. 1, 2022 Standard Specifications: Section 401-2.02 (Aggregates).
- B. Mineral Filler: Finely ground particles of limestone, hydrated lime, or other mineral dust, free of foreign matter and in accordance with NYSDOT Jan. 1, 2022 Standard Specifications: Section 703-08 (Mineral Filler).

2.2 ASPHALT MATERIALS

- A. Asphalt Binder: AASHTO MP1, PG 64-22. Refer to Part 2.4B of this Section.
- B. Tack Coat: Emulsified asphalt in accordance with NYSDOT Jan. 1, 2022 Standard Specifications Section 407-2, Materials (Tack Coat).

2.3 AUXILIARY MATERIALS

2.4 MIXES

- A. Hot-Mix Asphalt: Dense, hot-laid, hot-mix asphalt plant mixes meeting NYSDOT Jan. 1, 2022 Standard Specifications, Section 402-2 (Materials – HMA Pavements) for each pavement course and complying with the following requirements:
 - 1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.

2. Hot Mix Asphalt (HMA) Mixes to be placed at thickness noted on the plans.
 3. SuperPave Base HMA: NYSDOT Item 402.258903. 25.0 mm Nominal Maximum Aggregate Size, with F3 (low volume road) coarse aggregate friction requirement.
 4. SuperPave Binder HMA: NYSDOT Item 402.198903. 19.0 mm Nominal Maximum Aggregate Size, with F3 (low volume road) coarse aggregate friction requirement.
 5. SuperPave Top HMA: NYSDOT Item 402.098303. 9.5 mm Nominal Maximum Aggregate Size, with F3 (low volume road) coarse aggregate friction requirement.
- B. The Performance Graded Asphalt Binder used to produce the SuperPave Hot Mix Asphalt Mixes is defined by AASHTO Provisional Standard MP-1, Standard Specification for Performance Graded Asphalt Binder.
1. The Performance Graded Asphalt Binder shall be PG 64-22, as per NYSDOT Standard Specification 702-6422.
 2. The HMA design mixtures shall be developed in accordance with the criteria specified in the SuperPave HMA Items that are appropriate for a 50-year 18-kip Equivalent Single Axle Load (ESAL) of 29,785,200.
 3. Under no circumstances shall the Performance Graded Asphalt Binder Content be less than:
 - a. 5.0% for the Top Course Mix (9.5 mm aggregate)
 - b. 4.0% for the Binder and Base Course Mixes (19.0 mm and 25.0 mm aggregate)
- C. Crushed Gravel: When crushed gravel is to be used in the production of SuperPave Hot Mix Asphalt Mixes, the minimum percent of crushed particle shall be as follows:
1. For particle sizes greater than 12.5 mm, 75% one crushed face.
 2. For particle sizes between 12.5 mm and 2.36 mm, 85% two crushed faces.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades. Refer to Section 312000 (Earth Moving).
- B. Proceed with paving only after unsatisfactory conditions have been corrected.
- C. Prepare subbase in accordance with NYSDOT Standard Specifications: Section 304 (Subbase Course). Prior to installation of the subbase, Geotextile Separation Fabric is to be installed on the compacted subgrade.
 1. Refer to the plans for the location of the Geotextile Separation Fabric.
 - a. Requirements for Geotextile Separation Fabric are specified in Division 31 Section "Geosynthetics for Earthwork."

3.2 SAW CUTTING

- A. Existing pavement and overlay shall be saw cut perpendicular to the roadway surface along neat lines, and to the depth indicated on the plans and typical sections. A power saw approved by the Owner's Representative shall be used for cutting asphalt surface course and asphalt overlay. A power saw shall be used for cutting concrete pavement. After the existing asphalt pavement, concrete pavement, asphalt surface course or overlay has been saw cut through, the contractor may use pry bars, pneumatic tools or other methods approved by the owner's representative, to pry loose the existing pavement from that pavement which is to remain. A pavement breaker, under the supervision of the owner's representative, may be used to break up the pavement to be removed after the pavement has been completely saw cut through and completely free from the pavement to remain.

3.3 PATCHING

- A. Hot-Mix Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade. Fill excavated pavements with hot-mix asphalt base mix for full thickness of patch and, while still hot, compact flush with adjacent surface

3.4 TACK COAT

- A. Apply tack coat in accordance with NYSDOT Standard Specifications: Section 407-3.02 (Application of Bituminous Material).
- B. Apply tack coat to contact surfaces of curbs and precast drainage structures.
- C. Coat surfaces of manhole and catch basin frames with oil to prevent bond with asphalt pavement. Do not tack coat these surfaces.
- D. Paving over a tack coat should not commence until the emulsion has broken (goes from brown to black) or is tacky when touched.
- E. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
- F. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.5 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.
- B. Tack Coat: Apply in accordance with NYSDOT Standard Specifications: Section 407-3.02 (Application of Bituminous Material).

3.6 HOT-MIX ASPHALT PLACING

- A. Install Work in accordance with NYSDOT Jan. 1, 2022 Standard Specifications, Section 402-3.06: Spreading and Finishing of HMA Pavements.
- B. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
 - 1. Spread mix at minimum temperature of 250 deg F.
 - 2. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- C. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required.
- D. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.7 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.
 - 1. Clean contact surfaces and apply tack coat to joints.
 - 2. Offset longitudinal joints, in successive courses, a minimum of 6 inches.
 - 3. Offset transverse joints, in successive courses, a minimum of 24 inches.

3.8 COMPACTION

- A. Perform work in accordance with NYSDOT Jan. 1, 2022 Standard Specifications, Section 402-3.07 - Compaction (HMA Pavements).
- B. All vibratory compaction equipment for HMA shall be on the NYSDOT Approved List.
- C. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
- D. Compaction of Hot Mix Asphalt to follow the guidelines established 70 Series Compaction Methods as noted in Section 402 of the Jan. 1, 2022 NYS DOT Standard Specifications. On the first day of paving, a test section will be established, with compaction methods determined with the Contractor and Owner's Representative. The starting method of compaction will consist of a breakdown roller pass followed by four vibratory passes. Density readings will be taken after each roller pass to determine the project target density. This density will be used as the target density for the remainder of the project paving for that particular course of hot mix asphalt.

- E. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- F. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.9 INSTALLATION TOLERANCES

- A. Pavement Thickness: Compact each course to produce the thickness indicated on the Project Plans within the following tolerances:
 - 1. SuperPave Base Course: Plus or minus $\frac{1}{4}$ inch.
 - 2. SuperPave Binder Course: Plus or minus $\frac{1}{4}$ inch.
 - 3. SuperPave Top Course: Within $\frac{1}{4}$ inch.
- B. Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:
 - 1. SuperPave Base and SuperPave Binder Course: $\frac{1}{4}$ inch for each course.
 - 2. SuperPave Top Course: $\frac{1}{8}$ inch.
 - 3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is $\frac{1}{4}$ inch.

3.10 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.11 DISPOSAL

- A. Do not clean tools and equipment used for HMA paving on the pavement surface, near streams, ponds, drainage structures, or other areas that are tributary to waterways. If a petroleum product is used for cleaning, contain all liquids products during cleaning operations using tarpaulins, sand pads, or other collection methods. Properly dispose of sand and collected petroleum products as petroleum contaminated material at no additional cost to the Owner.

END OF SECTION 321200

SECTION 321273 - PAVEMENT JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract,

1.2 SUMMARY

- A. Section Includes:

1. Cold-applied joint sealants.
2. Expansion and contraction joints in asphalt and concrete pavements.

- B. Related Sections:

1. Division 32 Section "Flexible Paving" for constructing joints between concrete and asphalt pavement.
2. Division 32 Section "Concrete Paving" for joints in concrete sidewalks.

1.3 ACTION SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Product Certificates: For each type of joint sealant and accessory, from manufacturer.
- C. Manufacturer's Installation Instructions.
- D. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for joint sealants.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Source Limitations: Obtain each type of joint sealant from single source from single manufacturer.
- C. Product Testing: Test joint sealants using a qualified testing agency.

1. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.

1.6 PROJECT CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.
 2. When joint substrates are wet.
 3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
 4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Compatibility: Provide joint sealants, backing materials, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer based on testing and field experience.
- B. Colors of Exposed Joint Sealants: As indicated by manufacturer's designations.
- C. Cold-Applied Joint Sealants at Concrete Pavement Joints: Single Component, Nonsag, Silicone Joint Sealant for Concrete, ASTM D 5893, Type NS. Approved Products include, but are not limited to:
 1. Crafcoc Inc., an ERGON company; RoadSaver Silicone.
 2. Dow Corning Corporation; 888.
 3. Pecora Corporation; 301 NS.
- D. Cold-Applied Fuel Resistant Joint Sealant for Asphalt Pavements: Single Component, Pourable, Traffic-Grade, Modified-Urethane Joint Sealant for Concrete: ASTM C 920, Type S, Grade P, Class 25, for Use T. Products include, but are not limited to:
 1. Pecora Corporation; Urexpan NR-200.
- E. Expansion Joint Material for Concrete Sidewalks and Exterior Slabs:
 1. Provide Asphalt impregnated fiberboard with bond breaker tape that meets the requirements of ASTM D1751. Material to be compatible with joint sealant material that will be placed above it.

F. Joint Sealant Backer Materials:

General: Provide joint-sealant backer materials that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by joint-sealant manufacturer based on field experience and laboratory testing.

2.2 PRIMERS

- A. Primers: Product recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions.
- B. Joint Priming: Prime joint substrates where indicated or where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated unless more stringent requirements apply.
- B. Joint-Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

- C. Install joint-sealant backings of kind indicated to support joint sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - 1. Do not leave gaps between ends of joint-sealant backings.
 - 2. Do not stretch, twist, puncture, or tear joint-sealant backings.
 - 3. Remove absorbent joint-sealant backings that have become wet before sealant application and replace them with dry materials.

- D. Install joint sealants using proven techniques that comply with the following and at the same time backings are installed:
 - 1. Place joint sealants so they directly contact and fully wet joint substrates.
 - 2. Completely fill recesses in each joint configuration.
 - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

- E. Tooling of Nonsag Joint Sealants: Immediately after joint-sealant application and before skinning or curing begins, tool sealants according to the following requirements to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint:
 - 1. Remove excess joint sealant from surfaces adjacent to joints.
 - 2. Use tooling agents that are approved in writing by joint-sealant manufacturer and that do not discolor sealants or adjacent surfaces.

- F. Provide joint configuration to comply with joint-sealant manufacturer's written instructions unless otherwise indicated.

- G. Hot-applied joint sealants to be applied as per the manufacturer's instructions. Only melt enough material to be poured the same day.

3.4 CLEANING

- A. Clean off excess joint sealant or sealant smears adjacent to joints as the Work progresses, by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

- A. Protect joint sealants, during and after curing period, from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately and replace with joint sealant so installations in repaired areas are indistinguishable from the original work. Protect new joints from pedestrian and vehicle traffic during curing.

3.6 PAVEMENT-JOINT-SEALANT SCHEDULE

- A. Joint-Sealant Application: Joints within cement concrete pavement. Use Joint Sealant Material as described in Part 2.1 C of this Section.
 - 1. Joint Location:
 - a. Expansion and isolation joints in cast-in-place concrete pavement and sidewalks.
 - b. Contraction joints in cast-in-place concrete slabs.
 - c. Joints between concrete sidewalk and granite curbing.
 - d. Other joints as indicated.

- B. Joint-Sealant Application: Fuel-resistant joints at asphalt pavement. Use Joint Sealant Material as described in Part 2.1 D of this Section.
 - 1. Joint Location:
 - a. Joints between concrete and asphalt pavement.
 - b. Joints between concrete curbs and asphalt pavement.
 - c. Joints between existing and proposed asphalt pavement.
 - d. Other joints as indicated.

END OF SECTION 321273

SECTION 321313 – CEMENT CONCRETE PAVEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Attention is directed to the Contract and General Conditions and all Sections of Division 01 – General Requirements which are hereby made a part of the Specifications.
- B. Examine all Drawings and all other Sections of the Specifications for requirements therein affecting the Work of this Section.
- C. Coordinate work with that of all other trades affecting or affected by work of the Section. Cooperate with such trades to assure steady progress of all work under the Contract.
- D. Refer to Specification Section 03300.

1.2 SUMMARY

- A. Section includes: exterior cement concrete for the following:
 - 1. Exterior Cement Concrete for Walkways.
 - 2. Cast iron detectable warning plates for placement at ramps.
- B. Related Sections include the following:
 - 1. Division 31 Section “Excavation and Backfilling” for subgrade preparation, grading, and base course.

1.3 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, expansive hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume.

1.4 SUBMITTALS

- A. Product Data: For each type of manufactured material and product indicated.
- B. Design Mixes: For each concrete pavement mix. Include alternate mix designs (subject to review by Engineer) when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.
 - 1. Indicate amounts of water to be withheld for later addition at Project site (generally all water shall be added to transit mixer at batch plant).

- C. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated, based on comprehensive testing of current materials:
- D. Material Certificates: Signed by manufacturers certifying that each of the following materials complies with requirements:
 1. Cementitious materials and aggregates. This must include a test performed within the previous month for Alkali-Silica Reaction in aggregates.
 2. Form materials and form-release agents.
 3. Steel reinforcement and reinforcement accessories.
 4. Admixtures.
 5. Sealing compounds.
 6. Applied finish materials.
 7. Adhesives and epoxies.
 8. Joint fillers.
 9. Joint-filler strips.
 10. Repair materials.
 11. Detectable warning plates.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed pavement work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- B. Manufacturer Qualifications: Manufacturer of ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment.
 1. Manufacturer must be certified according to the National Ready Mix Concrete Association's Plant Certification Program.
- C. Testing Agency Qualifications: An independent testing agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 to conduct the testing indicated, as documented according to ASTM E 548.
 1. Personnel conducting field tests shall be qualified as ACI Concrete Field-Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.
- D. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant and each aggregate from one source, and each admixture from the same manufacturer.
- E. Welding: Qualify procedures and personnel according to AWS D1.4, "Structural Welding Code-Reinforcing Steel."
- F. ACI Publications: Comply with the following, unless more stringent provisions are indicated:
 1. ACI 301, "Specification for Structural Concrete."
 2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

- G. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixes.
- H. Preinstallation Conference: Conduct conference at Project site to include Owner, Owner's Representative, Engineer, General Contractor and Concrete Subcontractor.
 - 1. Before submitting design mixes, review concrete mix design and examine procedures for ensuring quality of concrete materials. Require representatives of each entity directly concerned with cast-in-place are to attend, including the following:
 - a. Contractor's superintendent.
 - b. Independent testing agency responsible for concrete design mixes.
 - c. Ready-mix concrete producer.
 - d. Concrete subcontractor.
 - 2. Layout of all walkways shall be reviewed to ensure alignments as demonstrated on Contract Documents.
 - 3. Scoring patterns and layout shall be reviewed prior to execution.

1.6 DELIVERY STORAGE AND HANDLING

- A. Deliver, store and handle steel reinforcement to prevent bending and damage.

1.7 PROJECT CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities and access to the building.

PART 2 - PRODUCTS

2.1 STEEL REINFORCEMENT

- A. Plain-Steel Welded Wire Fabric: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.
- B. Reinforcement Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.
- C. Epoxy-Coated Reinforcement Bars: ASTM A 775; with ASTM A 615, Grade 60 (Grade 420), bars.

2.2 REINFORCEMENT ACCESSORIES

- A. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcement bars, welded wire fabric, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete or fiber-reinforced concrete of greater compressive strength than concrete, and as follows:
 - 1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.

- B. Epoxy Repair Coating: Liquid, two-part, epoxy repair coating; compatible with epoxy coating on reinforcement and complying with ASTM A 775/A 775M.

2.3 CONCRETE MATERIALS

- A. General: Use the same brand and type of cementitious material from the same manufacturer throughout the Project.
- B. Portland Cement: ASTM C 150, Type I or II.
 - 1. Fly Ash: ASTM C 618, Class F or C.
- C. Normal Weight Aggregate: ASTM C 33, uniformly graded, from a single source, as follows:
 - 1. Class: Severe weathering region, but not less than 3S.
 - 2. Nominal Maximum Aggregate Size: 1 inch (38mm) Refer to design mix.
 - 3. Combined Aggregate Gradation: Well graded from coarsest to finest with not more than 18 percent and not less than 10 percent retained on an individual sieve, except that less than 8 percent may be retained on sieves finer than No. 5 (0.3mm).
 - 4. Do not use fine or coarse aggregates containing substances that cause spalling.
- D. Water: ASTM C 94.

2.4 ADMIXTURES

- A. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride. Refer to design mixes.
- B. Air-Entraining Admixture: ASTM C 260.
- C. High-Range, Water-Reducing Admixture: ASTM C 494, Type F.
- D. Water-Reducing and Retarding Admixture: ASTM C 494, Type A.

2.5 CURING MATERIALS

- A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. (305 g/sq. m) dry.
- B. Moisture-Retaining Cover: ASTM C 171, or white burlap-polyethylene sheet.
- C. Water: Potable.
- D. Evaporation Retarder: NOT PERMITTED.
- E. Curing Compound: NOT PERMITTED.

2.6 RELATED MATERIALS

- A. Joint-Filler Strips: ASTM D 5249, Type 2, ASTM D 1752 Expansion and Isolation Joint-Filler Strips: Ceramar, closed cell foam, available from W. R. Meadows, Inc, Hampshire, Illinois or approved equal.
- B. Dowel alignment system:
 - 1. Products
 - a. Speed Load PSD1/2x9LT, dowel sleeve in sizes for ½” x 18” dowel bar; by Greenstreak Inc, 800-325-9504, or approved equal.
- C. Clear, Waterborne, Membrane-Forming Sealing Compound: ASTM 1315, Type 1, Class A.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Kure-N-Seal W; Sonneborn, Div. Of ChemRex, Inc.
 - b. Approved equivalent.

2.7 CAST IRON ADA DETECTABLE WARNING PLATES

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Products
 - a. Syracuse Castings. Product: ADA Compliant Detectable Warning Plates.
 - b. Neenah Foundry. Product: R-4984.
 - c. East Jordan Iron Works. Product: Duralast Detectable Warning Plates.
- B. Size and shape: 24 x 24”. Provide radius products when specified along radius curbing.
- C. Color: Black.

2.8 CONCRETE MIXES

- A. Prepare design mixes, proportioned according to ACI 211.1 and ACI 301, for each type and strength of normal-weight concrete determined by either laboratory trial mixes or field experience.
- B. Use a qualified independent testing agency for preparing and reporting proposed mix designs for the trial batch method.
- C. Provide an Environmental Product Declaration for the concrete mix.
- D. Concrete Mix Design: Provide a Concrete Mix Design that meets the following:
 - 1. Proportion mixes to provide concrete with the following properties:
 - a. Compressive Strength (28 Days): 5,000 psi.
 - b. Type I/II Cement: 573 #/CY.

- c. Concrete Sand: 1450 #/CY
 - d. Crushed Gravel: 3/4" (1620 #/CY) , 1" (1050 #/CY)
 - e. ISG TYPE F Flyash: 85 #/CY+/-.
 - f. Air Entrained: 6% +/- 1%.
 - g. Masterbuilders Polyheed 997: 33.84 Oz.
 - h. Darex II (WR Grace): 5.07 Oz.
 - i. Maximum Water-Cementitious Materials Ratio: 0.46.
 - j. Curing: Moist cure exposed portions with 2 coats Kure-N-Seal W AND moist cure for 7 days minimum with burlene or approved equivalent.
 - k. 3-5" Slump.
- E. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement according to ACI 301 requirements for concrete exposed to deicing chemicals.
 - F. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.
 - G. Admixtures: Use admixtures according to manufacturer's written instructions.
 - 1. Use water reducing admixture or high-range water-reducing admixture (superplasticizer) in concrete, as required, for placement and workability.
 - 2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
 - 3. Use water-reducing admixture in pumped concrete, concrete for heavy-use industrial slabs and parking structure slabs, concrete required to be watertight, and concrete with a water-cementitious materials ratio below 0.50.
 - 4. Use corrosion-inhibiting admixture in concrete mixtures where indicated.

2.9 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.10 CONCRETE MIXING

- A. Ready-Mixed Concrete: Comply with requirements and with ASTM C 94. Furnish batch ticket information to concrete testing representative.
 - 1. When air temperature is between 85 deg F (30 deg C) and 90 deg F (32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Proof-roll prepared base surface to check for unstable areas and verify need for additional compaction. Proceed with pavement only after nonconforming conditions have been corrected and subgrade is ready to receive pavement.

- B. Remove loose material from compacted base surface immediately before placing concrete.

3.2 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides for pavement to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form release agent to ensure separation from concrete without damage.

3.3 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Limit concrete surface irregularities, designated by ACI 347R as abrupt or gradual, as follows:
 - 1. Class A, 1/8 inch (3mm).
- D. Construct forms tight enough to prevent loss of concrete mortar.
- E. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
 - 1. Install keyways, reglets, recesses, and the like, for easy removal.
 - 2. Do not use rust-stained steel form-facing material.
- F. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces. Provide and secure units to support screed strips; use strike-off templates or compacting-type screeds.
- G. Provide temporary openings for cleanouts and inspection ports where interior of formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss on concrete mortar. Locate temporary openings in forms at inconspicuous locations.
- H. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.
- I. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- J. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

- K. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.4 REMOVING AND REUSING FORMS

- A. General: Formwork that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F (10 deg C) for 24 hours after placing concrete, if concrete is hard enough to not be damaged by form-removal operations and curing and protection operations are maintained.
- B. Leave formwork that supports weight of concrete in place until concrete has achieved at least 70 percent of its 28-day design compressive strength.
 - 1. Determine compressive strength of in-place concrete by testing representative field or laboratory cure test specimens according to ACI 301.
 - 2. Remove forms only if shores have been arranged to permit removal of forms without loosening or disturbing shores.
- C. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-release agent.
- D. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets. Do not use patched forms for exposed concrete surfaces unless approved by Engineer.

3.5 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating reinforcement and with recommendations in CRSI's "Placing Reinforcing Bars" for placing and supporting reinforcement.
 - 1. Apply epoxy repair coating to uncoated or damaged surfaces of epoxy-coated reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.
 - 1. Shop or field weld reinforcement according to AWS D1.4, where indicated.
- D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.
- E. Install welded wire fabric in whole sheets as practicable, set on chairs or supports with tie wires to hold at proper elevation. Lap adjoining pieces at least two full meshes, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

- F. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities, or replace units as required before placement. Set mats for a minimum 2-inch (50-mm) overlap to adjacent mats.

3.6 JOINTS

- A. General: Construct construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated.
 - 1. When joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.
- B. Construction Joints: Install so strength and appearance of concrete is not impaired, at locations indicated or approved by Engineer. Refer to drawings for details. Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour, unless pavement terminates at isolation joints.
 - 1. Install epoxy coated dowel bars and plastic dowel sleeves at joints.
 - 2. Continue reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of pavement strips, unless otherwise indicated.
 - 3. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:
 - 1. Locate expansion joints at intervals of 30 feet (12.192 m) as indicated on the drawings, unless otherwise indicated.
 - 2. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch (3.2 mm). Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
- D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
 - 1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated.
 - 2. Terminate full-width joint-filler strips not less than ½ inch (13 mm) or more than 1 inch (25 mm) below finished concrete surface where joint sealants are indicated.
 - 3. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.
- E. Doweled Joints: Install dowel bars and support assemblies at joints where indicated.

3.7 CONCRETE PLACEMENT FOR WALKS

- A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcement steel, and items to be embedded or cast in. Notify other trades to permit installation of their work.
- B. Remove snow, ice, or frost from subbase surface and reinforcement before placing concrete. Do not place concrete on frozen surfaces.
- C. Moisten subbase to provide a uniform dampened condition at the time concrete is placed. Do not place concrete around manholes or other structures until they are at the required finish elevation and alignment.
- D. Comply with requirements and with recommendations in ACI 304R for measuring, mixing, transporting, and placing concrete.
- E. Do not add water to concrete during delivery, at Project site, or during placement.
- F. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- G. Consolidate concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures to consolidate concrete according to recommendations in ACI 309R.
- H. Screed pavement surfaces with a straightedge and strike off. Commence initial floating using bull floats or darbies to form an open textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading dry-shake surface treatments.
- I. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 - 1. When air temperature has fallen to or is expected to fall below 40 deg F (4.4 deg C), uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F (10 deg C) and not more than 80 deg F (27 deg C) at point of placement.
 - 2. Do not use frozen materials or materials containing ice or snow.
 - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators, unless otherwise specified and approved in mix designs.
- J. Hot-Weather Placement: Place concrete according to recommendations in ACI 305R and as follows when hot-weather conditions exist:
 - 1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 deg F (32 deg C). Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
 - 2. Cover reinforcement steel with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.

3. Fog-spray forms, reinforcement steel, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

3.8 CONCRETE FINISHING FOR WALKS

- A. General: Wetting of concrete surfaces during screeding, initial floating, or finishing operations is prohibited.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and the concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots, and fill low spots. Refloat surface immediately to uniform granular texture.
 1. Medium broom finish: Apply nonslip medium broom finish to exterior concrete walks. Immediately after float finishing, slightly roughen concrete surface by brooming with fiber-bristle broom, perpendicular to main traffic route. Coordinate required final finish with Engineer prior to application.
- C. Rough-Formed Finish: For paver base, provide as-cast concrete texture imparted by form-facing material with tie holes and defective areas repaired and patched. Remove fins and other projections exceeding ACI 347R limits for class of surface specified.

3.9 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and follow recommendations in ACI 305R for hot-weather protection during curing.
- B. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including slabs and other surfaces.
- C. Cure concrete according to ACI 308.1, by the following method:
 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch (300-mm) lap over adjacent absorptive covers.
 2. Curing Compound: NOT PERMITTED

3.10 SEALER

- A. Exterior Sealer: Apply two (2) coats of specified sealer to exterior concrete slabs, walks, landings, steps, walls, ramps and curbs according to manufacturer's directions. Apply uniformly in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial

application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.11 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Owner's Representative. Remove and replace concrete that cannot be repaired and patched to Owner's Representative approval.
- B. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
 - 1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than ½ inch (13 mm) in any dimension in solid concrete, but not less than 1 inch (25 mm) in depth. Make edges of cuts perpendicular to concrete surface. Clean, dampen with water, and brush-coat holes and voids with bonding agent. Fill and compact with patching mortar before bonding agent has dried. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
 - 2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement so that, when dry, patching mortar will match surrounding color. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.
 - 3. Repair defects on concealed formed surfaces that affect concrete's durability and structural performance as determined by Owner's Representative.
- C. Perform structural repairs of concrete, subject to Owner's Representative approval, using epoxy adhesive and patching mortar.
- D. Repair materials and installation not specified above may be used, subject to Owner's Representative approval

3.12 PAVEMENT TOLERANCES

- A. Comply with tolerances of ACI 117 and as follows:
 - 1. Elevation: 1/4 inch (6 mm).
 - 2. Thickness: Plus 3/8 inch (9 mm), minus 1/4 inch (6 mm).
 - 3. Surface: Gap below 10-foot-long, unlevelled straightedge not to exceed 1/4 inch (6 mm).
 - 4. Joint Spacing: 3 inches (75 mm).
 - 5. Contraction Joint Depth: Plus 1/4 inch (6 mm), no minus.
 - 6. Joint Width: Plus 1/8 inch (3 mm), no minus.

3.13 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspection agency to sample materials, perform tests, and submit test reports during concrete placement according to requirements specified in this Article.

- B. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C172 shall be performed according to the following requirements:
1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.
 - a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
 2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change. **SLUMP TEST IS ONLY FOR CONSISTENCY, NOT FOR DETERMINATION OF ACCEPTABLE WATER CONTENT.**
 3. Air Content: ASTM C 231, pressure method, for normal weight concrete; ASTM C173, volumetric method, for structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each type of air-entrained concrete.
 4. Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F (4.4 deg C) and below and when 80 deg F (27 deg C) and above, and one test for each set of compressive-strength specimens.
 5. Compression Test Specimens: ASTM C 31/C 31M; one set of five standard cylinders for each compressive-strength test, unless otherwise indicated. Cylinders shall be molded and stored for laboratory-cured test specimens unless field-cured test specimens are required.
 6. Compressive-Strength Tests: ASTM C 39;
 - a. Test two field-cured specimens at 7 days and two at 28 days.
 - b. A compressive strength test shall average compressive strength from two specimens obtained from the same composite sample and tested at age indicated.
 7. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, current operations shall be evaluated and corrective procedures shall be provided for protecting and curing in-place concrete.
 8. Strength level of concrete will be considered satisfactory if averages of sets of three consecutive compressive-strength test results equal or exceed specified compressive strength and no individual compressive-strength test result falls below specified compressive strength by more than 500 psi (3.4 MPa).
- C. Test results shall be reported in writing to the Owner's Representative, Engineer, Concrete Manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing agency, concrete type and class, location of concrete batch in pavement, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- D. Nondestructive testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Engineer but will not be used as sole basis for approval or rejection of concrete.

- E. Additional Tests: At Contractor's expense, testing agency shall make additional tests of the concrete when test results indicate slump, air entrainment, concrete strengths, or other requirements have not been met, as directed by Engineer. Testing agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed by Engineer.

3.14 REPAIRS AND PROTECTION

- A. Remove and replace concrete pavement that is broken, damaged, or defective, or does not meet requirements in this Section.
- B. Drill test cores where directed by Engineer and Owner's Representative when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to pavement with epoxy adhesive.
- C. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- D. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 321313

SECTION 321640 - STONE CURBS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Attention is directed to the Contract and General Conditions and all Sections of Division 01 – General Requirements which are hereby made a part of the Specifications.
- B. Examine all Drawings and all other Sections of the Specifications for requirements therein affecting the Work of this Section.
- C. Coordinate work with that of all other trades affecting or affected by work of the Section. Cooperate with such trades to assure steady progress of all work under the Contract.

1.2 SUMMARY

- A. This Section includes:
 - 1. Roadway Curb.
 - 2. Flush Granite Curb.
 - 3. Reset of Salvaged Granite Curb
- B. Related Sections include the following:
 - 1. Division 31 Section “Excavation and Backfilling”.
 - 2. Division 32 Section “Cement Concrete Pavement”
 - 3. Division 32 Section “Asphalt/Flexible Paving”

1.3 SUBMITTALS

- A. Product Data: samples of color and finish.

1.4 QUALITY ASSURANCE

- A. Codes and Standards: Provide stone curbing according to the materials, workmanship, and other applicable requirements of the New York State Department of Transportation (NYSDOT) Standard Specifications, Construction and Materials (current edition).
- B. Installer Qualifications: Engage an experienced installer who has completed stone curbing installations similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.

- C. Single Source Responsibility: Obtain stone curbing from a single source with resources to provide products and materials of consistent quality in appearance and physical properties without delaying progress of the Work.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect stone curbing during storage and construction against soiling or contamination from earth and other materials.
- B. Protect grout and mortar materials from deterioration by moisture and temperature. Store in a dry location or waterproof container.

1.6 PROJECT CONDITIONS

- A. Site Information: Perform site survey and layout for curbing. Verify that straight length, radius, and drop curbing sections may be installed in compliance with drawings and referenced standards.
- B. Weather Limitations: Protect mortar material against freezing when ambient air temperature is 40 degrees F and falling. Heat materials and provide temporary protection of completed joints.
- C. Sequencing and Scheduling: Coordinate stone curbing work with location and alignment of roadways, parking lot entrances, traffic islands, walks, and drainage inlets.

PART 2 - PRODUCTS

- 2.1 REGIONAL MATERIALS: Provide stone that has been extracted, harvested, or recovered, as well as fabricated, within 500 miles of the project.

2.2 STONE CURBING

- A. Roadway Curb: Granite, complying with the requirements of NYSDOT Specifications 714-01 for Type NVF (near vertical face) curb:
 - 1. 1. Size: 5 inches wide by 16 inches deep.
 - 2. 2. Finish: Sawn top, split face battered front.
 - 3. 3. For radii less than 100 feet, radiused curb shall be provided.
- B. Flush Curb: Custom cut granite:
 - 1. 1. Size: 5 inches wide by 12 inches deep.
 - 2. 2. Finish: Sawn top, sawn faces.
 - 3. 3. For radii less than 100 feet, radiused curb shall be provided
- C. Concrete Backing and Bedding: Portland cement concrete, 2,500psi mix.
- D. Mortar: Cement mortar complying with the requirements of NYSDOT Specifications 705-20.

- E. Stainless Steel Pins: ASTM A276, Type 304.

PART 3 - EXECUTION

3.1 INSTALLATION : LANDSCAPE CURB

- A. Do not use stone curbing with cracks, voids, discolorations, and other defects that might be visible in the finished work.
- B. Place stone curbing on a continuous concrete backing in accordance with NYSDOT Specifications 609-3.01.
- C. Set stone curb on true line and grade to provide a minimum 4- inch and maximum 6-inch reveal above final pavement elevations, and fit no closer than 1/4 inch at the aris line.
- D. Fill all joints solid with cement mortar, and remove excess mortar from exposed faces of stone curbing.
- E. Backfill, after cement has properly set, with material indicated for applicable pavement section or turf.
- F. Sawcut transition angle from standard face curb to chamfered mountable curb per contract documents.

3.2 INSTALLATION : ROADWAY CURB

- A. Do not use stone curbing with cracks, voids, discolorations, and other defects that might be visible in the finished work.
- B. Place stone curbing on a continuous concrete backing in accordance with NYSDOT Specifications 609-3.01.
- C. Set stone curb on true line and grade to provide a minimum 4- inch and maximum 6-inch reveal above final pavement elevations, and fit no closer than 1/4 inch at the aris line.
- D. Fill all joints as detailed.
- E. Backfill, after cement has properly set, with material indicated for applicable pavement section.
- F. Sawcut transition angle from standard face curb to chamfered mountable curb per contract documents.

3.3 FIELD QUALITY CONTROL

- A. Tolerances: Provide completed stone curbing installation that does not exceed the following deviations from specifications and alignments indicated:
 - 1. Curb Reveal: Plus or minus 3/8 inch.

2. Curb Grade: 1/4 inch per 10 feet.
3. Horizontal Alignment: Within 2 inches.
4. Elevation: Within 1/2 inch at any point.

3.4 PROTECTION

- A. Cleaning: Remove any visible stains and excess mortar from exposed surfaces, wash and scrub clean.
- B. Protect the installed curbing from chipping, staining, displacement or other damage during backfilling and paving operations.

END OF SECTION 321640

SECTION 321723 - PAVEMENT MARKINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Traffic lines and pavement markings.
 - 2. Paint.
 - 3. Glass beads.
- B. Related Sections:
 - 1. Section 321200 Flexible Paving.
 - 2. Section 321313 Concrete Paving.

1.2 REFERENCES

- A. American Association of State Highway and Transportation Officials:
 - AASHTO M247 - Standard Specification for Glass Beads Used in Traffic Paint.
- B. ASTM International:
 - ASTM D711 - Standard Test Method for No-Pick-Up Time of Traffic Paint.
- C. New York State Department of Transportation (NYSDOT) Standard Specifications, current edition.
 - NYSDOT, Section 727-09 – Traffic Paint.
 - NYSDOT, Section 727-05 – Glass Beads for Pavement Markings.

1.3 PERFORMANCE REQUIREMENTS

- A. Paint Adhesion: Adhere to road surface forming smooth continuous film one minute after application.
- B. Paint Drying: Tack free by touch so as not to require coning or other traffic control devices to prevent transfer by vehicle tires within two minutes after application.

1.4 SUBMITTALS

- A. Manufacturer's Installation Instructions: Submit instructions for application temperatures, eradication requirements, application rate, line thickness, type of glass beads, bead embedment and bead application rate, and any other data on proper installation.
- B. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with NYSDOT Standard Specifications, Section 640.

1.6 QUALIFICATIONS

- A. Applicator: Company specializing in performing work of this section with minimum three years experience.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Invert containers several days prior to use when paint has been stored more than 2 months. Minimize exposure to air when transferring paint. Seal drums and tanks when not in use.
- B. Glass Beads. Store glass beads in cool, dry place. Protect from contamination by foreign substances.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Conform to Manufacturer's requirements regarding the use of products on site.

PART 2 PRODUCTS

2.1 PAINTED PAVEMENT MARKINGS

- A. Furnish materials in accordance with the New York State Department of Transportation (NYSDOT) standards (Section 640-2 of the NYSDOT Specifications).

- B. EQUIPMENT

Continuous Longitudinal Line Application Machine: Use application equipment with following capabilities.

- 1. Dual nozzle paint gun to simultaneously apply parallel lines of indicated width in solid or broken patterns or various combinations of those patterns.
 - 2. Pressurized bead-gun to automatically dispense glass beads onto painted surface, at required application rate.
 - 3. Measuring device to automatically and continuously measure length of each line placed, to nearest foot.
- C. Machine Calibration:
 - 1. Paint Line Measuring Device: Calibrate automatic line length gauges to maintain tolerance of plus or minus 25 feet per mile.
 - 2. Cycle Length/Paint Line Length Timer: Calibrate cycle length to maintain tolerance of plus or minus 6 inches per 40 feet; calibrate paint line length to maintain tolerance to plus or minus 3 inches per 10 feet.
 - 3. Paint Guns: Calibrate to simultaneously apply paint binder at uniform rates as specified with an allowable tolerance of plus or minus 1 mil.
 - 4. Bead Guns: Calibrate to dispense glass beads simultaneously at specified rate. Check guns by dispensing glass beads into gallon container for predetermined fixed period of time. Verify weight of glass beads.

- D. Other Equipment:
 - 1. For application of crosswalks, intersections, stop lines, legends and other miscellaneous items by walk behind strippers, hand spray or stencil trucks, apply with equipment meeting requirements of this section. Do not use hand brushes or rollers. Optionally apply glass beads by hand.

2.2 SOURCE QUALITY CONTROL

- A. Test and analyze traffic paints in accordance with ASTM D711.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Review layout of all pavement markings with Owner's Representative before starting work.

3.2 PREPARATION

- A. Maintenance and Protection of Traffic:
 - 1. Provide short term traffic control.
 - 2. Prevent interference with marking operations and to prevent traffic on newly applied markings before markings dry.
- B. Surface Preparation.
 - 1. Clean and dry paved surface prior to painting.
 - 2. Blow or sweep surface free of dirt, debris, oil, grease or gasoline.
 - 3. Spot location of final pavement markings as specified and as indicated on Drawings by applying pavement spots 25 feet on center.
 - 4. Notify Owner's Representative / DASNY Site Representative after placing pavement spots and minimum 3 days prior to applying traffic lines.

3.3 APPLICATION

- A. Install Work in accordance with New York State Department of Transportation (NYSDOT) standards (Section 640-3 of the Specifications). Pavement markings to be placed on clean, dry pavement that has a minimum temperature of 50°F. The ambient temperature shall be a minimum of 50°F and rising.
- B. Install paints with a minimum wet film thickness of 20 mils.

3.4 FIELD QUALITY CONTROL

- A. Inspect for incorrect location, insufficient thickness, line width, coverage, retention, uncured or discolored material, and insufficient bonding.
- B. Repair lines and markings, which after application and curing do not meet following criteria:
 - 1. Incorrect Location: Remove and replace incorrectly placed patterns.

2. Insufficient Thickness, Line Width, Paint Coverage, Glass Bead Coverage or Retention: Prepare defective material by acceptably grinding or blast cleaning to remove substantial amount of beads and to roughen marking surface. Remove loose particles and debris. Apply new markings on cleaned surface in accordance with this Section.
 3. Uncured or Discolored Material, Insufficient Bonding: Remove defective markings in accordance with this Section and clean pavement surface one foot beyond affected area. Apply new markings on cleaned surface in accordance with this Section.
- C. Replace failed or defective markings in entire section of defective markings within 30 days after notification when any of the following exists during prior to project acceptance:
1. Average retroreflectivity within any 528 foot section is less than 1225 mcd/m²/1x for white pavement markings and 100 mcd/m²/1x for yellow pavement markings.
 2. Marking is discolored or exhibits pigment loss, and is determined to be unacceptable by three member team based on visual comparison with beaded color plates.
 3. More than 15 percent of area of continuous line, or more than 15 percent of combined area of skip lines, within any 528 foot section of roadway is missing.

3.5 PROTECTION OF FINISHED WORK

- A. Protect painted pavement markings from vehicular and pedestrian traffic until paint is dry and track free. Follow manufacturer's recommendations or use minimum of 30 minutes. Consider barrier cones as satisfactory protection for materials requiring more than 2 minutes dry time.

END OF SECTION

SECTION 329113 – SOIL PREPARATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Examine all Drawings and all other Sections of the Specifications for requirements therein affecting the Work of this Section.
- C. Coordinate work with that of all other trades affecting or affected by work of the Section. Cooperate with such trades to assure steady progress of all work under the Contract.

1.2 SCOPE OF WORK

- A. This Section specifies administrative and procedural requirements for planting soil including, but not limited to the following:
 - 1. Soil amendments.
 - 2. Soil preparation for imported soils including testing for conformance.
 - 3. Subgrade testing.
 - 4. Installation and placement of soils.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 31 Section “Site Clearing” for stripping and stockpiling topsoil and for protection of existing trees and planting.
 - 2. Division 31 Section “Soils for Earthwork” for bioretention soil mix.
 - 3. Division 32 Section “Earth Moving” for excavation, filling, rough grading, and backfill.
 - 4. Division 32 Sections “Turf and Grasses” and “Plants” for planting soil mix placement.
- C. Coordinate activities with other project contractors so that there is no soil disturbance from traffic or other construction activities subsequent to placement.

1.3 REFERENCES

- A. ANSI: American National Standards Institute.
- B. ASTM: American Society for Testing Materials.
- C. USDA Soil Texture System of Classification.

1.4 DEFINITIONS

- A. Backfill: The earth used to replace or the act of replacing earth in an excavation.
- B. Finish Grade: Elevation of finished surface of planting soil.
- C. Planting Soil: Stockpiled or imported topsoil and/or subsoil mixed with soil amendments for planting trees, shrubs, ground covers and lawn.
- D. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill.
- E. Subsoil: All soil beneath the topsoil layer of the site soil profile, and typified by the lack of organic matter and soil organisms. Subsoil is unsuitable for plant growth unless amended as specified.
- F. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches (50 mm) in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.

1.5 SUBMITTALS

- A. Sources for Soil Components and Planting Soil Mixes: Submit information identifying sources for all soil components and the firm responsible for mixing of planting soil mixes.
 - 1. Soil mix supplier shall have a minimum of five years' experience at supplying custom planting soil mixes.
 - 2. Submit supplier name, address, telephone and fax numbers and contact name.
 - 3. Submit certification that accepted supplier is able to provide sufficient quantities of materials and mixes for the entire project.
- B. Samples: Prior to installing soil mixes, submit representative samples to Engineer for approval. Do not place any soil mixes until Engineer's approval has been obtained.
 - 1. Imported loam soil mix.
- C. Compost:
 - 1. Product Data: For each type of product indicated, including source.
 - 2. Certificates: Provide certificates required by authorities having jurisdiction, especially for any composted materials containing sewage sludge. Approval as EPA Type 1 "exceptional quality" is required as well as that of the State of New York.
 - 3. Testing: As described in Quality Assurance.
- D. All Other Amendments: Product Data.
- E. Subgrade Testing:
 - 1. Field percolation test results as described in Part 3 Execution. Percolation tests shall be measured in inches per hour of drainage.

- F. Imported Planting Soil Mixes: The following testing is required of all soil mixes comprised of imported soil materials:
1. Particle Size Analysis: Include sand, silt and clay, sand size distribution, sand particle shape, pH, uniformity coefficient by hydrometer method (ASTM D-422-63).
 2. Organic Matter: Percent organic matter by combustion (ASTM F-1647, Method 1).
 3. Report suitability of soil mixes for turf and plant growth. Verify compliance with recommended quantities of nitrogen, phosphorus, potassium, nutrients and soil amendments to be added to produce satisfactory topsoil.
 4. Test results for soil mixes must be accepted prior to placement.

1.6 QUALITY ASSURANCE

- A. Source Limitations for Topsoil and Planting Soil Mix: Obtain all topsoil and/or planting soil mix through one source that has been tested according to the requirements below. If there are any additional proposed sources, Contractor must provide topsoil analysis and testing for each source as described below.
- B. Sources for Soil Components and Planting Soil Mixes: Submit information identifying sources for all soil components and the firm responsible for mixing of planting soil mixes.
1. Landscape Architect shall have the right to reject any soil supplier.
 2. Soil mix supplier shall have a minimum of five years' experience at supplying custom planting soil mixes.
 3. Submit supplier name, address, telephone and fax numbers and contact name.
- C. Submit certification that accepted supplier is able to provide sufficient quantities of materials and mixes for the entire project.
- D. Soil Management Plan: Prior to commencement of site work, submit an approved copy of the project Soil Management Plan with an attached implementation schedule.
- E. Soil-Testing Laboratory Qualifications: The Contractor shall engage an independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
- F. Percolation Testing of Subgrade: Prior to placement of the planting soil, test the subgrade as described in this Section. Coordinate the testing of the subgrade for percolation with the Sitework Contractor, Soil Scientist, and Landscape Architect.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Material should not be handled or hauled, placed or compacted when it is wet as after a heavy rainfall or is frozen. Soil should be handled only when the moisture content is less than at field capacity. The Landscape Architect shall be consulted to determine if the soil is too wet to handle.
- B. Store and handle packaged materials in strict compliance with manufacturer's instructions and recommendations. Protect all materials from weather, damage, injury and theft.

- C. Sequence deliveries to avoid delay. On-site storage space is permissible only with written notice from Construction Manager. Deliver materials only after preparations for placement of planting soil have been completed.
- D. Prohibit vehicular and pedestrian traffic on or around stockpiled planting soil.
- E. Soil that is to be stockpiled longer than two weeks, whether on or off site, shall be placed in mounds less than six feet high. If soil stockpiles greater than six feet high are present longer than two weeks then the contractor shall break down and disperse soil so that mounds do not exceed the six foot height restriction for longer than two weeks.
 - 1. Provide silt fencing around topsoil mounds, and/or as directed in the Storm Water Pollution Prevention Plan (SWPPP).
- F. Vehicular access to the site is restricted. The Contractor shall include proposed routing for deliveries and site access in the Soil Management Plan.
- G. Soil materials shall not be handled or hauled, placed or compacted when it is wet, as after a heavy rain, nor when frozen. Soil shall be handled only when the moisture content is less than field capacity.
- H. Provide delivery tickets for soil amendments to verify the quantity of material specified on the Soil Management Plan. Make corrections and adjustments as directed by the Landscape Architect.

PART 2 - PRODUCTS

2.1 TOPSOIL

- A. Stockpiled Topsoil: Prior to commencement of Work, the Contractor shall strip and stockpile existing site topsoil for reuse.
 - 1. Screen soil free of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
 - 2. Supplement with imported or manufactured topsoil from off-site sources when on-site quantities are insufficient. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches (100 mm) deep; do not obtain from agricultural land, bogs or marshes.
- B. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 4 percent organic material content; clean and screened free of deleterious materials and weeds, including but not limited to any plant listed by NYSDEC or other authority as invasive, nuisance or noxious weed species; and free of stones 1 inch (25 mm) or larger in any dimension and other extraneous materials harmful to plant growth.
 - 1. Topsoil Source: Import topsoil or manufactured topsoil from off-site sources only if required due to deficit of existing soil materials. Obtain topsoil displaced from naturally

well-drained construction or mining sites where topsoil occurs at least 4 inches (100 mm) deep; do not obtain from agricultural land, bogs or marshes.

2.2 SOIL AMENDMENTS

- A. Sand: Refer to Section 310516 Aggregates for Earthwork.
- B. Compost: Well-composted, stable, and weed-free organic matter not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings. The compost shall be a dark brown to black color and be capable of supporting plant growth with appropriate management practices in conjunction with addition of fertilizer and other amendments as applicable, with no visible free water or dust, with no unpleasant odor, and meeting the following criteria as reported by laboratory tests. **Debris such as metal, glass, plastic, wood (other than residual chips), asphalt or masonry shall not be visible and shall not exceed one percent dry weight.**
 - 1. Organic Matter Content: 50 to 60 percent of dry weight. (ASTM F-1647, Method 1).
 - 2. The ratio of carbon to nitrogen shall be in the range of 10:1 to 25:1.
 - 3. One hundred percent of the material shall pass a 3/8-inch (or smaller) screen. (ASTM D-422-63).
 - 4. pH: The pH shall be between 6.8 to 7.2 as determined from a 1:1 soil-distilled water suspension using a glass electrode pH meter. (American Society of Agronomy *Methods of Soil Analysis*, Part 2, 1986).
 - 5. Salinity: Electrical conductivity of a one to two soil to water ratio extract shall not exceed 4.0 mmhos/cm (dS/m).
 - 6. Heavy metal contents shall conform to state and federal regulations.
 - 7. Feedstock: Agricultural, food, or industrial residuals; biosolids; yard trimmings; or source-separated or compostable mixed solid waste.
- C. Compost may be obtained at one of the following sources, provided that the test requirements are met:
 - 1. WeCare Compost by We Care Organics, Jordan, New York, 315-689-1937
 - 2. Cayuga Compost (fine) by P&S Excavating, Trumansburg, New York, 607-387-6826
 - 3. Cornell Farm Services, Ithaca, NY: 607-257-2235
 - 4. CJ Krantz Organics, Clarence Center, NY, 716-741-3850
 - 5. Fessenden Farms, King Ferry, NY, 877-767-7280
 - 6. Approved equivalent.

2.3 FERTILIZER

- A. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 4 percent nitrogen and 10 percent phosphoric acid.
- B. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.
- C. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:

1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.
- D. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

2.4 IMPORTED PLANTING SOIL MIX

- A. Planting soil mix shall be a loam as defined by USDA Soil Texture System of Classification created from combination of accepted sand, topsoil, and compost meeting the following criteria:
1. Free of stones over 1/2", stumps, roots or other woody material over 2" in diameter
 2. Free of brush and seeds from noxious weeds.
 3. Sand content 25% to 50% by volume
 4. Silt 30% to 50% by volume
 5. Clay content 50% to 80% by volume
 6. Permeability >1" inch per hour
 7. pH 6.8 to 7.2
 8. Organic Matter Minimum 5.0%
 9. Magnesium 35 lbs.s per acre, minimum
 10. Phosphorus (P2O5) 75 lbs. per acre, minimum
 11. Potassium (K2O) 85 lbs. per acre, minimum
 12. Soluble salts <500 ppm
- B. Provide test results from a certified soil scientist confirming that soil mix conforms to the characteristics as outlined above.
- C. Weight of Slow-Release Fertilizer per 1000 Sq. Ft. (92.9 Sq. m): As recommended by manufacturer, based on rates supplied by Soil Scientist.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Pre-Installation Examination Required: The Contractor shall examine previous work, related work, and conditions under which this work is to be performed and shall notify Landscape Architect in writing of all deficiencies and conditions detrimental to the proper completion of this work. Beginning work means Contractor accepts substrates, previous work, and conditions. The Contractor shall not place any planting or turf soil mix until all work in adjacent areas is complete and approved by the Landscape Architect.
- B. Examination of Subgrade: The subgrade shall be inspected prior to the start of soil placement for conformance with the Drawings for elevations of subgrade relative to finish grade. Subgrade shall be graded smooth and parallel to the finish grades unless otherwise noted in the Drawings.

- C. Pre-Grading Inspection: Prior to the commencement of Work, contact the Engineer to provide an inspection to verify the delineation areas on the Soils Management Plan and proposed location(s) for topsoil and material stockpiling. Make corrections and adjustments as directed by the Engineer prior to commencing any work.

3.2 SUBGRADE DRAINAGE TESTING

- A. Perform subgrade percolation testing at a frequency of one percolation test for every 1,000 sq. ft. of installed topsoil area and at all bioretention planting beds. Percolation tests shall be performed on a minimum of 10% of tree pits and 20% of shrub beds, and on any areas of questionable drainage or as required by the Engineer. Contact Engineer and conduct percolation tests in his or her presence. Percolation tests shall be measured in inches per hour of drainage at the base of the plant root level.
 - 1. Excavate test pits 36" by 36" by 18" deep.
 - 2. Fill test pit with 12" minimum depth water and allow water to naturally drain out. When water has drained out, fill excavation again with 12" minimum depth water and measure rate of drainage. Drainage rate should be a minimum of 1" per hour (1 inch drop in water elevation per hour test pit).
 - 3. Should any planting areas yield a percolation test result of less than 1" of drainage per hour, stop work on these areas and obtain direction from Engineer prior to installation of planting mixes and amendments.

3.3 MIXING OF SOIL MIXES

- A. General Soil Mix Preparation: Examine soil and remove foreign materials, stones over 1/2", and organic debris over 2" in length. All preparation and mixing shall be accomplished when the soil moisture content is less than field capacity.
- B. Adequate quantities of mixed planting soil materials shall be provided to attain, after compaction and natural settlement, all design finish grades.
 - 1. Minimum depths of mixed soils must be achieved per planting details. Contractor shall remove excess soils from site as needed at no additional cost.
- C. Soil mixes shall be produced with equipment that blends together each component in a thorough and uniform manner.
 - 1. Soil mixing can occur in-place or off-site.

3.4 SOIL PREPARATION TECHNIQUES

- A. Protection of Existing Soils: Protect existing in-place soils and vegetation.
 - 1. Applicability: All areas within the Project Limit Line that are to remain undisturbed by all construction activities including topsoil stripping, grading, excavation, backfill, staging and stockpiling shall be protected by the following:

- a. Enclose area with chain link protection fence. Fence line shall be maintained throughout the duration of the Work.
 - b. Provide continuous 3" layer of shredded bark mulch at commencement of site work. Layer of mulch shall remain undisturbed throughout the duration of the Work.
 - c. Upon completion of site work, Contractor shall rototill shredded bark mulch into soil, avoiding tree roots.
 - d. Contractor shall establish lawn or planting beds as directed in the Landscape Plan.
- B. Imported Planting Soil Mix: Import topsoil and amend to achieve a loam as defined by the USDA Soil Texture System of Classification.
- 1. Applicability: All areas designated for lawns and planting beds that need additional material to achieve finish grades.
 - 2. Contractor shall manufacture planting soil mix as follows:
 - a. Contractor shall procure all soil component materials.
 - b. Contractor shall obtain laboratory testing services to determine percentages of soil component materials required to manufacture planting soil mix.
 - c. Mix in fertilizers and amendments as recommended by soil testing laboratory and as approved by the Engineer. If lime is to be added, it shall be mixed with dry soil before fertilizer is added and mixed.
 - d. After component percentages are determined by the Soil Scientist, each planting soil mix shall be tested for physical and chemical analysis.
 - e. Retest mixed planting soil and adjust mix as necessary to meet project requirements.
 - 3. Placement: Scarify or till subgrade to depth needed to achieve required depth of planting or turf soil mix after amending. Entire surface shall be disturbed by scarification. Do not scarify within drip line of existing trees.
 - 4. Rake beds to fine grade and remove surface rocks larger than 2 inches in diameter.
 - a. In turf areas, roll to compact soil to 85% of maximum density and remove rocks and debris greater than 1 inch in diameter.

3.5 COORDINATION AND EXCESS MATERIALS

- A. Coordinate activities with other project contractors so that there is no soil disturbance from traffic or other construction activities subsequent to soil placement.
- B. Excess Soil Materials: Remove the excess soil materials from the site at no additional cost to the Owner unless otherwise requested.
 - 1. Owner shall reserve right of first refusal on all amended soil mixes.

3.6 FIELD QUALITY CONTROL

- A. Post-Installation Inspection: Prior to planting, contact the Landscape Architect to provide an inspection verify that the placement of amendments and soil preparation is consistent with the Soil Management Plan.

1. Contractor and Engineer shall verify depth of imported planting soil placement and/or rototilled amended soil depth prior to installation of plants.
2. If required depth is not achieved, Contractor shall provide additional rototilling, mixing and compost to achieve specified depth at no cost to the Owner.

END OF SECTION 329113

SECTION 329200 - TURF AND GRASSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Examine all Drawings and all other Sections of the Specifications for requirements therein affecting the Work of this Section.
- C. Coordinate work with that of all other trades affecting or affected by work of the Section. Cooperate with such trades to assure steady progress of all work under the Contract.

1.2 SUMMARY

- A. Section Includes:
 - 1. Seeding.
 - 2. Lawn renovation.
 - 3. Lawn Maintenance.
- B. Related Sections:
 - 1. Division 31 Section "Site Clearing" for topsoil stripping and stockpiling.
 - 2. Division 31 Section "Earth Moving" for excavation, filling and backfilling, and rough grading.

1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Final Acceptance: At the end of the Maintenance Period, Landscape Architect shall reinspect all lawns and meadows to determine whether Satisfactory Lawn has been achieved.
- C. Initial Acceptance: Completion of seeding or sodding, with adequacy determined by Landscape Architect. Maintenance period shall commence for 60 days after initial acceptance, and continue until Final Acceptance.
- D. Manufactured Soil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- E. Planting Soil: Native or imported topsoil, manufactured topsoil, or surface soil modified to become topsoil; mixed with soil amendments.

- F. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill immediately beneath planting soil.
- G. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
 - 1. Certification of each seed mixture for turfgrass sod, identifying source, including name and telephone number of supplier.
- C. Qualification Data: For qualified landscape Installer.
- D. Product Certificates: For soil amendments and fertilizers, from manufacturer.
- E. Material Test Reports: For existing surface soil and imported topsoil.
- F. Planting Schedule: Indicating anticipated planting dates for each type of planting.
- G. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of lawns during a calendar year. Submit before expiration of required initial maintenance periods.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful lawn establishment.
 - 1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when planting is in progress.
 - 2. Maintenance Proximity: Not more than two hours' normal travel time from Installer's place of business to Project site.
- B. Soil-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
- C. Topsoil Analysis: Furnish soil analysis by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; sodium absorption ratio; deleterious material; pH; and mineral and plant-nutrient content of topsoil.

1. Report suitability of topsoil for lawn growth. State-recommended quantities of nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory topsoil.

D. Preinstallation Conference: Conduct conference at Project site.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Seed: Deliver seed in original sealed, labeled, and undamaged containers.

1.7 PROJECT CONDITIONS

- A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of planting completion.

1. Spring Planting: April 1 to June 15.
2. Fall Planting: September 1 to December 1.

- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit.

1.8 MAINTENANCE SERVICE

- A. Initial Lawn Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:

1. Seeded Lawns: 90 days from date of planting completion.
 - a. When initial maintenance period has not elapsed before end of planting season, or if lawn is not fully established, continue maintenance during next planting season.

PART 2 - PRODUCTS

2.1 SEED

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances.

- B. Seed Mix: For use in all non-athletic turf lawn seedings unless specified otherwise in writing by the Landscape Architect:

1. Drought & Wear Supreme Mix, by Preferred Seed, or approved equivalent:
2. Mix is as follows:

- a. 40% 2nd Millenium Tall Fescue
 - b. 40% Turf Gem II Tall Fescue Blend
 - c. 10% Brooklawn Kentucky Bluegrass
 - d. 10% Pizzazz Perennial Ryegrass
3. Bioretention Seed Mix: Low Grow Mixture by Preferred Seed, or approved equivalent:
- a. 30% Nanook Hard Fescue
 - b. 25% Macro Polo Sheep Fescue
 - c. 25% Quatro Sheep Fescue
 - d. 25% Intrigue Chewings Fescue
 - e. Seeding Rate: 10 pounds per 1,000 square feet

2.2 PLUGS

- A. Plugs: Certified Number 1 quality/premium, including limitations on thatch, weeds, diseases, nematodes, and insects. Furnish viable plants of uniform density, color, and texture, cut into square or round plugs, strongly rooted, and capable of vigorous growth and development when planted; of the following species and plug size:
- 1. Species: Pennsylvania sedge, *Carex pensylvanica*.
 - 2. Plug Size: 3 inches (75 mm).

2.3 TOPSOIL AND AMENDMENTS

- A. Refer to Section 329113.

2.4 PLANTING ACCESSORIES

- A. Selective Herbicides: EPA registered and approved, of type recommended by manufacturer for application.

2.5 FERTILIZER

- A. Starter Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
- 1. Composition: 18 percent nitrogen, 24 percent phosphorous, and 12 percent potassium, by weight.
 - 2. Application Rate: 5.5 pounds per 1,000 square feet (5 bags per acre).
- B. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
- 1. Composition: 38 percent nitrogen, 0 percent phosphorous, and 8 percent potassium, by weight.
 - 2. Application Rate: 3.5 pounds per 1,000 square feet (3 bags per acre).

2.6 MULCHES

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
- B. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic; free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.
- C. Nonasphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application; nontoxic and free of plant-growth or germination inhibitors.

2.7 EROSION-CONTROL MATERIALS

- A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches (150 mm) long.
- B. Erosion-Control Fiber Mesh: Biodegradable burlap or spun-coir mesh, a minimum of 0.92 lb/sq. yd. (0.5 kg/sq. m), with 50 to 65 percent open area. Include manufacturer's recommended steel wire staples, 6 inches (150 mm) long.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive lawns and grass for compliance with requirements and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
 - 1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
 - 2. Protect grade stakes set by others until directed to remove them.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 LAWN PREPARATION

- A. Limit lawn subgrade preparation to areas to be planted.

- B. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 4 inches (100 mm). Remove stones larger than 1 inch (25 mm) in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
- C. Refer to Section 329113 Soil Preparation for soil amendment procedures.
- D. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch (13 mm) of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit finish grading to areas that can be planted in the immediate future.
- E. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- F. Before planting, restore areas if eroded or otherwise disturbed after finish grading.

3.4 PREPARATION FOR EROSION-CONTROL MATERIALS

- A. Prepare area as specified in "Lawn Preparation" Article.
- B. For erosion-control mats, install planting mix in two lifts, with second lift equal to thickness of erosion-control mats. Install erosion-control mat and fasten as recommended by material manufacturer.
- C. Fill cells of erosion-control mat with planting mix and compact before planting.
- D. For erosion-control blanket or mesh, install from top of slope, working downward, and as recommended by material manufacturer for site conditions. Fasten as recommended by material manufacturer.
- E. Moisten prepared area before planting if surface is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

3.5 SEEDING

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph (8 km/h). Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
 - 1. Do not use wet seed or seed that is moldy or otherwise damaged.
 - 2. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate of 5 to 8 lb/1000 sq. ft. (2.3 to 3.6 kg/92.9 sq. m).
- C. Rake seed lightly into top 1/8 inch (3 mm) of soil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes exceeding 1:4 with erosion-control blankets and 1:6 with erosion-control fiber mesh installed and stapled according to manufacturer's written instructions.

- E. Protect seeded areas with erosion-control mats where shown, installed and anchored according to manufacturer's written instructions.
- F. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre (42 kg/92.9 sq. m) to form a continuous blanket 1-1/2 inches (38 mm) in loose depth over seeded areas. Spread by hand, blower, or other suitable equipment.
 - 1. Anchor straw mulch by crimping into soil with suitable mechanical equipment.

3.6 HYDROSEEDING

- A. Hydroseeding: Mix specified seed, fertilizer, and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
 - 1. Mix slurry with fiber-mulch manufacturer's recommended tackifier.
 - 2. Apply slurry uniformly to all areas to be seeded in a one-step process. Apply slurry at a rate so that mulch component is deposited at not less than 1500-lb/acre (15.6-kg/92.9 sq. m) dry weight, and seed component is deposited at not less than the specified seed-sowing rate.

3.7 PLUGGING

- A. Plant plugs in holes or furrows, spaced 8 inches apart in both directions. On slopes, contour furrows to near level.

3.8 LAWN RENOVATION

- A. Renovate existing lawn within entire construction limit area.
- B. Renovate existing lawn damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.
 - 1. Reestablish lawn where settlement or washouts occur or where minor regrading is required.
 - 2. Provide new turf soil mix as required.
- C. Remove sod and vegetation from diseased or unsatisfactory lawn areas; do not bury in soil.
- D. Remove topsoil containing foreign materials resulting from Contractor's operations, including oil drippings, fuel spills, stone, gravel, and other construction materials, and replace with new turf soil mix.
- E. Mow, dethatch, core aerate, and rake existing lawn.
- F. Remove weeds before seeding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.

- G. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off Owner's property.
- H. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches (150 mm).
- I. Apply soil amendments and initial fertilizers required for establishing new lawns and mix thoroughly into top 4 inches (100 mm) of existing soil. Provide new planting soil to fill low spots and meet finish grades.
- J. Apply seed and protect with straw mulch or sod as required for new lawns.
- K. Water newly planted areas and keep moist until new lawn is established.

3.9 LAWN MAINTENANCE

- A. Maintain and establish lawn by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn. Provide materials and installation the same as those used in the original installation.
 - 1. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
- B. Watering: Provide and maintain temporary piping, hoses, and lawn-watering equipment to convey water from sources and to keep lawn uniformly moist to a depth of 4 inches (100 mm).
 - 1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
 - 2. Water lawn with fine spray at a minimum rate of 1 inch (25 mm) per week unless rainfall precipitation is adequate.
- C. Mow lawn as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:
 - 1. Mow grass to a height of 2 to 3 inches (50 to 75 mm).
- D. Lawn Postfertilization: Apply fertilizer after initial mowing and when grass is dry.
 - 1. Use fertilizer that will provide actual nitrogen of at least 1 lb/1000 sq. ft. (0.45 kg/92.9 sq. m) o lawn area.
- E. Lawn installations shall meet the following criteria as determined by Landscape Architect:
 - 1. Satisfactory Seeded Lawn: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage

- exceeding 90 percent over any 10 sq. ft. (0.92 sq. m) and bare spots not exceeding 5 by 5 inches (125 by 125 mm).
 - 2. Satisfactory Plugged Lawn: At end of maintenance period, the required number of plugs has been established as well-rooted, viable patches of grass; and areas between plugs are free of weeds and other undesirable vegetation.
- F. Use specified materials to reestablish lawns that do not comply with requirements and continue maintenance until lawns are satisfactory.
- 1. Overseed all bare patches exceeding 5 by 5 inches with overseeding seed mix at specified rates.
 - 2. Contractor shall include watering until satisfactory lawns are achieved, at no additional cost to the Owner.

3.10 SATISFACTORY LAWNS

- A. Lawn installations shall meet the following criteria as determined by Architect:
- 1. Satisfactory Seeded Lawn: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. (0.92 sq. m) and bare spots not exceeding 5 by 5 inches (125 by 125 mm).
 - 2. Satisfactory Plugged Lawn: At end of maintenance period, the required number of plugs has been established as well-rooted, viable patches of grass; and areas between plugs are free of weeds and other undesirable vegetation.
- B. Use specified materials to reestablish lawns that do not comply with requirements and continue maintenance until lawns are satisfactory.

3.11 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris, created by lawn work, from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after lawn is established.
- C. Remove nondegradable erosion-control measures after grass establishment period.

END OF SECTION 329200

SECTION 329300 – PLANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Examine all Drawings and all other Sections of the Specifications for requirements therein affecting the Work of this Section.
- C. Coordinate work with that of all other trades affecting or affected by work of the Section. Cooperate with such trades to assure steady progress of all work under the Contract.

1.2 SUMMARY

- A. Section Includes:
 - 1. Trees.
 - 2. Shrubs.
 - 3. Ground cover.
 - 4. Plants.
- B. Related Sections:
 - 1. Division 31 Section "Site Clearing" for protection of existing trees and plantings, topsoil stripping and stockpiling, and site clearing.
 - 2. Division 31 Sections "Earth Moving" and "Aggregates for Earthwork" for excavation, filling, and rough grading and for subsurface aggregate drainage and drainage backfill materials.
 - 3. Division 32 Section "Soil Preparation" for procuring and mixing planting soil mixes.
 - 4. Division 32 Section "Turf and Grasses" for lawn planting.

1.3 DEFINITIONS

- A. Backfill: The earth used to replace or the act of replacing earth in an excavation.
- B. Balled and Burlapped Stock: Exterior plants dug with firm, natural balls of earth in which they are grown, with ball size not less than diameter and depth recommended by ANSI Z60.1 for type and size of tree or shrub required; wrapped, tied, rigidly supported, and drum laced as recommended by ANSI Z60.1.
- C. Balled and Potted Stock: Exterior plants dug with firm, natural balls of earth in which they are grown and placed, unbroken, in a container. Ball size is not less than diameter and depth recommended by ANSI Z60.1 for type and size of exterior plant required.

- D. Clump: Where three or more young trees were planted in a group and have grown together as a single tree having three or more main stems or trunks.
- E. Container-Grown Stock: Healthy, vigorous, well-rooted exterior plants grown in a container with well-established root system reaching sides of container and maintaining a firm ball when removed from container. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1 for type and size of exterior plant required.
- F. Final Acceptance: At the end of the Maintenance Period, the Owner's Representative will reinspect all plantings to determine satisfactory plant establishment.
- G. Finish Grade: Elevation of finished surface of planting soil.
- H. Initial Acceptance: Completion of planting, with adequacy determined by the Owner's Representative. Maintenance period shall commence for 60 days after initial acceptance, and continue until Final Acceptance.
- I. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- J. Multi-Stem: Where three or more main stems arise from the ground from a single root crown or at a point right above the root crown.
- K. Planting Soil: Native or imported topsoil, manufactured topsoil, or surface soil modified to become topsoil; mixed with soil amendments.
- L. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill, before placing planting soil.
- M. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Verification: For each of the following:
 - 1. 5 lb. (2.2 kg) of mineral mulch for each color and texture of stone required, in labeled plastic bags.
- C. Qualification Data: For qualified landscape Installer.
- D. Product Certificates: For each type of manufactured product, from manufacturer, and complying with the following:
 - 1. Manufacturer's certified analysis for standard products.
 - 2. Analysis of other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.

- E. Planting Schedule: Indicating anticipated planting dates for exterior plants.
- F. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of exterior plants during a calendar year. Submit before expiration of required maintenance periods.
- G. Warranty: Sample of special warranty.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful establishment of exterior plants.
 - 1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when planting is in progress.
- B. Provide quality, size, genus, species, and variety of exterior plants indicated, complying with applicable requirements in ANSI Z60.1, "American Standard for Nursery Stock."
- C. Tree and Shrub Measurements: Measure according to ANSI Z60.1 with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Take caliper measurements 6 inches (150 mm) above the ground for trees up to 4-inch (100-mm) caliper size, and 12 inches (300 mm) above the ground for larger sizes. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip-to-tip.
- D. Observation: Engineer may observe trees and shrubs either at place of growth or at site before planting for compliance with requirements for genus, species, variety, size, and quality. Engineer retains right to observe trees and shrubs further for size and condition of balls and root systems, insects, injuries, and latent defects and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.
 - 1. Notify Owner's Representative and Engineer of sources of planting materials seven days in advance of delivery to site.
- E. Preinstallation Conference: Conduct conference at Project site.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver exterior plants freshly dug.
 - 1. Immediately after digging up bare-root stock, pack root system in wet straw, hay, or other suitable material to keep root system moist until planting.
- B. Do not prune trees and shrubs before delivery except as approved by Engineer. Protect bark, branches, and root systems from sun scald, drying, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of exterior plants during delivery. Do not drop exterior plants during delivery and handling.

- C. Handle planting stock by root ball.
- D. Deliver exterior plants after preparations for planting have been completed and install immediately. If planting is delayed more than six hours after delivery, set exterior plants and trees in shade, protect from weather and mechanical damage, and keep roots moist.
 - 1. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
 - 2. Do not remove container-grown stock from containers before time of planting.
 - 3. Water root systems of exterior plants stored on-site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition.

1.7 PROJECT CONDITIONS

- A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.
 - 1. Spring Planting: April 1 through June 30.
 - 2. Fall Planting: September 1 through November 15.
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed according to manufacturer's written instructions and warranty requirements.
- C. Coordination with Lawns: Plant trees and shrubs after finish grades are established and before planting lawns unless otherwise acceptable to the Owner's Representative.
 - 1. When planting trees and shrubs after lawns, protect lawn areas and promptly repair damage caused by planting operations.

1.8 WARRANTY

- A. Special Warranty: Installer's standard form in which Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Death and unsatisfactory growth, except for defects resulting from lack of adequate maintenance, neglect, abuse by Owner, or incidents that are beyond Contractor's control.
 - b. Structural failures including plantings falling or blowing over.
 - 2. Warranty Periods from Date of Initial Acceptance:
 - a. Trees, Shrubs, and Plants: One year.
 - b. Ground Cover: Six months.
 - 3. Include the following remedial actions as a minimum:

- a. Remove dead exterior plants immediately. Replace immediately unless required to plant in the succeeding planting season.
- b. Replace exterior plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
- c. A limit of one replacement of each exterior plant will be required except for losses or replacements due to failure to comply with requirements.
- d. Provide extended warranty for replaced plant materials; warranty period equal to original warranty period.

1.9 MAINTENANCE SERVICE

- A. Initial Maintenance Service for Trees, Shrubs and Plants: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until plantings are acceptably healthy and well established, but for not less than maintenance period below.
 - 1. Maintenance Period: 12 months from date of Initial Acceptance.
- B. Continuing Maintenance Proposal: From Installer to Owner, in the form of a standard yearly (or other period) maintenance agreement, starting on date initial maintenance service is concluded. State services, obligations, conditions, and terms for agreement period and for future renewal options.

PART 2 - PRODUCTS

2.1 TREE AND SHRUB MATERIAL

- A. General: Furnish nursery-grown trees and shrubs complying with ANSI Z60.1, with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock free of disease, insects, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
- B. Provide trees and shrubs of sizes, grades, and ball or container sizes complying with ANSI Z60.1 for types and form of trees and shrubs required. Trees and shrubs of a larger size may be used if acceptable to Engineer, with a proportionate increase in size of roots or balls.
- C. Root-Ball Depth: Furnish trees and shrubs with root balls measured from top of root ball, which shall begin at root flare according to ANSI Z60.1. Root flare shall be visible before planting.
- D. Label each tree and shrub with securely attached, waterproof tag bearing legible designation of botanical and common name.
- E. Label at least one tree and one shrub of each variety and caliper with a securely attached, waterproof tag bearing legible designation of botanical and common name.

2.2 SHADE AND FLOWERING TREES

- A. Shade Trees: Single-stem trees with straight trunk, well-balanced crown, and intact leader, of height and caliper indicated, complying with ANSI Z60.1 for type of trees required.
 - 1. Provide balled and burlapped trees.
 - 2. Branching Height: One-third to one-half of tree height.
- B. Small Upright Trees: Branched or pruned naturally according to species and type, with relationship of caliper, height, and branching according to ANSI Z60.1; stem form as follows:
 - 1. Stem Form: As specified.
 - 2. Provide balled and burlapped trees.

2.3 DECIDUOUS SHRUBS

- A. Form and Size: Shrubs with not less than the minimum number of canes required by and measured according to ANSI Z60.1 for type, shape, and height of shrub.
 - 1. Shrub sizes indicated are sizes after pruning.
 - 2. Provide balled and burlapped shrubs.

2.4 FERTILIZER

- A. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.
- B. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 - 1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.
- C. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
 - 1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

2.5 MULCHES

- A. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:
 - 1. Type: Shredded hardwood.
- B. Mineral Mulch: Hard, durable stone, washed free of loam, sand, clay, and other foreign substances, of following type, size range, and color:

1. Type: Rounded riverbed gravel or smooth-faced stone.
2. Size Range: 1-1/2 inches (38 mm) maximum, 3/4 inch (19 mm) minimum.
3. Color: Readily available natural gravel color range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive exterior plants for compliance with requirements and conditions affecting installation and performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, and lawns and existing exterior plants from damage caused by planting operations.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
- C. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations when requested, and obtain Owner Representative's acceptance of layout before planting. Make minor adjustments as required.
- D. Lay out exterior plants at locations directed by Owner's Representative. Stake locations of individual trees and shrubs and outline areas for multiple plantings.

3.3 PLANTING BED ESTABLISHMENT

- A. Loosen subgrade of planting beds to a minimum depth of 6 inches (150 mm). Remove stones larger than 1-1/2 inches (38 mm) in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
 1. Apply fertilizer directly to subgrade before loosening.
 2. Thoroughly blend planting soil mix off-site before spreading.
 - a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
 - b. Mix lime with dry soil before mixing fertilizer.
 3. Spread planting soil mix to a depth of 24" but not less than required to meet finish grades after natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
 - a. Spread approximately one-half the thickness of planting soil mix over loosened subgrade. Mix thoroughly into top 4 inches (100 mm) of subgrade. Spread remainder of planting soil mix.

- B. Finish Grading: Grade planting beds to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.
- C. Before planting, restore planting beds if eroded or otherwise disturbed after finish grading.

3.4 EXCAVATION FOR TREES AND SHRUBS

- A. Pits and Trenches: Excavate circular pits with sides sloped inward. Trim base leaving center area raised slightly to support root ball and assist in drainage. Do not further disturb base. Scarify sides of plant pit smeared or smoothed during excavation.
 - 1. Excavate approximately three times as wide as ball diameter for balled and burlapped stock.
- B. Subsoil removed from excavations may not be used as backfill unless amended to approximate a sandy loam soil.
- C. Obstructions: Notify Engineer and Owner's Representative if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.
 - 1. Hardpan Layer: Drill 6-inch- (150-mm-) diameter holes, 24 inches (600 mm) apart, into free-draining strata or to a depth of 10 feet (3 m), whichever is less, and backfill with free-draining material.
- D. Drainage: Notify Engineer and Owner's Representative if subsoil conditions evidence unexpected water seepage or retention in tree or shrub pits.
- E. Fill excavations with water and allow to percolate away before positioning trees and shrubs.

3.5 TREE AND SHRUB PLANTING

- A. Before planting, verify that root flare is visible at top of root ball according to ANSI Z60.1.
- B. Set balled and burlapped stock plumb and in center of pit or trench with top of root ball 2 inches (50 mm) above adjacent finish grades.
 - 1. Remove burlap and wire baskets from tops of root balls and partially from sides, but do not remove from under root balls. Remove pallets, if any, before setting. Do not use planting stock if root ball is cracked or broken before or during planting operation.
 - 2. Place planting soil mix around root ball in layers, tamping to settle mix and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water again after placing and tamping final layer of planting soil mix.
- C. Set container-grown stock plumb and in center of pit or trench with top of root ball 1 inch (25 mm) above adjacent finish grades.
 - 1. Carefully remove root ball from container without damaging root ball or plant.

2. Place planting soil mix around root ball in layers, tamping to settle mix and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water again after placing and tamping final layer of planting soil mix.

- D. Organic Mulching: Apply 4" average thickness of organic mulch extending 12 inches (300 mm) beyond edge of planting pit or trench. Do not place mulch within 3 inches (75 mm) of trunks or stems.

3.6 TREE AND SHRUB PRUNING

- A. Remove only dead, dying, or broken branches. Do not prune for shape.
- B. Prune, thin, and shape trees and shrubs according to standard horticultural practice. Prune trees to retain required height and spread. Unless otherwise indicated by the Engineer or Owner's Representative, do not cut tree leaders; remove only injured or dead branches from flowering trees. Prune shrubs to retain natural character.

3.7 GROUND COVER AND PLANT PLANTING

- A. Set out and space ground cover and plants as indicated.
- B. Dig holes large enough to allow spreading of roots and backfill with planting soil.
- C. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.
- D. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.
- E. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.

3.8 PLANTING BED MULCHING

- A. Mulch backfilled surfaces of planting beds and other areas indicated. Provide mulch ring around trees in lawn areas.
 1. Organic Mulch: Apply 4" average thickness of organic mulch, and finish level with adjacent finish grades. Do not place mulch against plant stems.

3.9 PLANT MAINTENANCE

- A. Tree and Shrub Maintenance: Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, restoring planting saucers, and resetting to proper grades or vertical position, as required to establish healthy, viable plantings. Spray or treat as required to keep trees and shrubs free of insects and disease. Restore or replace damaged tree wrappings.
- B. Ground Cover and Plant Maintenance: Maintain and establish plantings by watering, weeding, fertilizing, mulching, and other operations as required to establish healthy, viable plantings.

3.10 CLEANUP AND PROTECTION

- A. During planting, keep adjacent paving and construction clean and work area in an orderly condition.
- B. Protect exterior plants from damage due to landscape operations, operations by other contractors and trades, and others. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.

3.11 DISPOSAL

- A. Disposal: Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 329300

SECTION 330132 - SEWER BYPASS PUMPING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Mobilization and demobilization.
- B. Nature of systems to be bypassed.
- C. Flow bypass plan requirements.
- D. Backup and standby equipment requirements.

1.2 RELATED SECTIONS

- A. Section 333313 – Sanitary Sewer Piping
- B. Section 334100 – Storm Utility Drainage Piping
- C. Section 334413 – Precast Concrete Manholes

1.3 REFERENCES

- A. Bypass Pumping System - The bypass pumping system shall consist of all equipment, piping, valves, plugs, power supplies and other appurtenances required to divert sewer flows from the Sewer. The bypass pumping system shall be comprised of primary (pumping) setups and secondary (pumping) setups in addition to all bypass piping necessary to complete the work.
- B. Bypass Piping - The bypass piping shall consist of the piping, valves, and other appurtenances including, but not limited to, air relief valves and dewatering connections. The bypass piping includes both the suction and discharge piping for each primary and secondary flow bypass setup. Butterfly valves shall not be used, only sluice or knife gate valves.
- C. Primary Setups – The primary setups are locations where flow is withdrawn from the lateral sewer connections. Primary setups are listed in the following table. Each setup shall have primary and backup pumps and a unique discharge manhole as identified below. Contractor shall select appropriate location on the basis of the proposed sewer piping installation approach. No claims shall be submitted for additional bypass pumping.

PRIMARY SETUP NO.	SUCTION MANHOLE	DISCHARGE MANHOLE
SA-1 (Dwg C-204)	SAN MANH 16849	SAN MANH 17262

- D. Secondary Setups – The secondary setups are the locations where flow is intercepted from tributary sewers before it enters the trunk or interceptor sewer. The following table identifies the location and number of secondary setups within a reach served by a primary setup. The Contractor(s) is/are responsible for intercepting all flows as are necessary for the installation of sewer lines or open cut replacement. The Contractor shall verify that the secondary setups will intercept and convey all tributary flow from the sections of sewer being installed or

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replaced. Any additional secondary setups deemed necessary will be provided at his cost. The secondary setups shall discharge into the bypass piping provided for the primary setup.

PRIMARY SETUP NO.	REQUIRED SECONDARY SETUPS/MANHOLE	NO. OF SECONDARY SETUPS
SA-1 (Dwg C-204)	SAN MH 16849	SAN MANH 17262

- E. Primary Pumps - The primary pump(s) are the main pumps located at each primary and secondary setup. The primary pump(s) shall be capable of pumping the specified flow, be connected to the bypass piping, be isolated with valves, and be complete with power supplies.
- F. Backup Pumps - The backup pump(s) is/are located at each primary setup. The backup pump(s) shall be capable of pumping peak dry weather flow, be operational, be connected to the bypass piping, be isolated with valves, and be complete with power supplies. The backup pumps shall be capable of operating in parallel with the primary pump(s) to provide increased pumping capacity when flow exceeds capacity of primary pump(s).
- G. Standby Pump - The standby pump shall be located within five minutes of the project site. One standby pump shall be required for each primary setup and one for each pump size used in secondary setups. The standby pump(s) shall be capable of pumping the peak dry weather flow and be able to be connected to the bypass piping at each primary and secondary setup. The standby pump shall have the capacity of the largest pump at each location. If the standby pump is placed in operation, an additional standby pump shall be provided within four hours.
- H. Discharge Manhole - The discharge manholes are the locations where pumped flows exit the bypass piping and are reintroduced into a sewer system.
- I. Peak Dry Weather Flow - The peak dry weather flow that may occur in a sewer exclusive of surface runoff which is produced by precipitation. This value includes peak infiltration and sanitary flow plus snowmelt runoff.
- J. Excessive Sewer Surcharging – A water surface elevation at any location along the trunk sewer or interceptor sewer that exceeds 5 feet above the sewer invert and/or causes backups into tributary sewers owned by the Owner or any other public or private property and/or induces an overflow from the sanitary sewer system.

1.4 SUBMITTALS

- A. The Contractor will retain the services of a licensed New York State engineer to design, review the installation, and approve the bypass pumping system. Calculations and review comments will be kept on file throughout the duration of the contract. Provide product data describing conformance to ASTM and ANSI code of the bypass pipe material.

- 1. A letter of approval shall be submitted to the Engineer stating that the design meets

the requirements of the Contract Documents.

B. Flow Bypass Plan

1. The Contractor shall submit to the Engineer plans and descriptions pertaining to the bypass pumping provisions to be taken by the Contractor regarding the handling of peak dry weather flows. No construction shall begin until the Engineer has reviewed all submittals and are determined to be complete.
2. A detailed flow bypass plan shall be submitted for each set up.
3. The plan shall include, but not be limited to, details of the following:
 - a. Footprint of pumps within indicated staging area.
 - b. Sewer plugging plan, including type, location, and manufacturer of plugs and emergency release procedures.
 - c. Material and location of suction piping installation.
 - d. Material and location of discharge piping installation and associated valves.
 - e. Locations and number of each primary, secondary, and bypass pump and power requirements.
 - f. Compliance with permits required by the NYSDEC, NYS Office of Mental Health, and Broome County Health Department.
 - g. Discharge plan that will consist of a written description and drawings (as necessary) to demonstrate how the flow will be returned to the sewer.
 - h. Plan for protecting discharge manholes or structures from erosion and damage.
 - i. Plan for noise control for each pump and/or generator.
 - j. Cold weather operational plan to protect equipment and pipes from freezing, including provisions to remove water that is trapped in sections at road crossing.
 - k. Standard and emergency shutdown plan indicating emergency (24-hour) contacts, drain points, drain down time, disinfection and disassembly.
 - l. Schedule for installation of and maintenance of bypass pumping lines.
 - m. Details for standard road/sidewalk crossings.
 - n. Plan to prevent odors from being generated, including seals at discharge

manholes and primary and secondary setup manholes.

- o. Alarm system(s) that will allow prompt determination of either excessive sewer surcharging or loss of bypass piping integrity during operation.
 - p. Schedule for routine inspection of bypass pumping lines.
4. The Engineer's and Owner's receipt of flow bypass plan does not relieve Contractor for responsibility for means, methods, and sequences of construction, requirement to pump peak dry weather flows, and for safety.
 5. Following the performance of the preparatory cleaning and television inspection work, the Contractor shall assess the operation of the bypass pumping system. This assessment shall be done prior to the installation of any sewer liners. The Engineer and Owner must agree to any modification(s) that the Contractor proposes as a result of this evaluation.

1.5 PROJECT RECORDS

- A. The Contractor shall maintain records which indicate the following:
 1. Date of installation and operation of primary and secondary setups.
 2. Maintenance schedules for each pump.
 3. Dates and times of any flow loss from the bypass pumping system.
 4. Dates and times of any backups of flow into private property, and contractor action with corrective actions taken.
 5. Date of any public complaints with corrective actions taken.

1.6 QUALITY CONTROL

- A. Certification - The Contractor and his subcontractors shall demonstrate to the Owner that he specializes in the design and operation of temporary bypass pump stations. The Contractor shall provide five references of bypass pumping projects of similar size and complexity performed within the past three years. Two of these references will be from cold weather projects. Up-to-date contact individuals and telephone numbers shall be provided.

1.7 REGULATORY REQUIREMENTS

- A. Conform to regulatory agencies having jurisdiction over the work.

1.8 FIELD MEASUREMENTS

- A. Prior to start of construction, verify the field measurements that existing conditions are as shown on drawings. Notify Engineer of differences.

1.9 COORDINATION

- A. Coordinate field work with other operations including maintenance of traffic, access to private driveways, sidewalks and emergency 911 service.
- B. Coordinate work with local utility companies (private and municipal) for location of existing utilities and protection thereof.
- C. Coordinate work which may disrupt campus or school bus routes and dropoff/pickup locations.
- D. Coordinate flow bypassing with Owner.

The Contractor shall time the installation of work around climatological conditions which ensure bypass pumping capacity or the capability of returning the sewer to service upon elevated flow conditions.

The Contractor must coordinate the installation, removal, and the repair of pavement and right-of-way disruption with the Owner and the repair of private property with individual owners.

1.10 SCHEDULING

- A. The Contractor shall be responsible for the installation, operation and removal of all bypass facilities and surface restoration within the number of working days allowed in the contract.

PART 2 PRODUCT

2.1 MATERIALS - BYPASS PIPING

- A. High Density Black Polyethylene Pipe – ANSI/ASTM D1248, butt heat fusion type joints, fittings shall conform to ASTM D2657 and D3261.

2.2 EQUIPMENT

- A. All pumps used shall be fully automatic self-priming units that do not require the use of foot valves or vacuum pumps in the priming system. The pumps may be electric, gasoline, or diesel powered. All pumps must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of sanitary sewer discharges.
- B. The Contractor shall provide the necessary stop/start controls for each pump.
- C. Sewer plugs shall be pneumatic and shall be capable of accommodating the maximum allowable surcharge heads that may be experienced during the construction of this project. The plugs shall also be readily removed from the system during emergency shutdown of the system.

PART 3 EXECUTION

3.1 DESIGN REQUIREMENTS

A. Maintenance of Flow

1. Bypass pumping systems shall have sufficient capacity for peak flow as identified in the following table:

SETUPS	PEAK FLOW (GPM)
Primary Setups:	80 GPM
Secondary Setups:	25 GPM

The Contractor shall pump flows which occur during the installation of the work or provide prompt removal of plugs on the trunk line to allow gravity operation as may be required to prevent surcharging of adjacent sewers. Plugs must be removed on secondary bypass pump setups when the tributary flow reaches 90 percent of design capacity. If plugs are removed, the Contractor shall initiate dewatering of the bypass piping. No extra payment shall be associated with the decommissioning or restarting of the bypass pumping system.

2. The design of the bypass pumping system must allow for prompt dewatering of the system during periods of non-use or if leakage or freezing occurs.
3. The bypass pumping system will be capable of being operated 24 hours per day during the preparation and inspection of sewers or the installation of liners as necessary for the protection of the work. The system shall be returned to gravity operation during periods when not necessary for the installation of the work.
4. The Contractor shall make all arrangement for bypass pumping during the time the trunk sewer is shut down for any reason. System must overcome any existing force main pressure on discharge.
5. The bypass pumping system shall incorporate single or parallel force mains within the permanent easements provided by the Owner.

B. Noise Suppression

1. Contractor shall equip all pump motors and engines to minimize the generation of noise.
2. Contractor shall construct sound enclosures around all primary setups regardless of the operating hours, as directed by the Engineer.

3. Contractor shall utilize sound enclosures around all secondary setups that must run outside of standard operating hours between 8:00 a.m. and 6:00 p.m.
 4. Contractor shall be responsible to implement additional sound reduction measures as directed by the Owner, including those specified to protect the interests of private property owners.
- C. Siting of Facilities
1. Contractor shall maintain traffic flow on public streets in compliance with all state and local regulations. Contractor shall have one day to install road crossings that require the closure of public streets. In all instances traffic flow must be maintained to all businesses. Maintenance and Protection of Traffic Plans, if required, will be provided by the Contractor.

3.2 PERFORMANCE REQUIREMENTS

- A. It is essential to the operation of the existing sewerage system that there be no interruption in the flow of sewage throughout the duration of the project. The Contractor shall provide, maintain, and operate all temporary facilities such as dams, plugs, pumping equipment, conduits, all necessary power, and all other labor and equipment necessary to intercept the sewage flow before it reaches the point where it would interfere with work; carry it past this work; and return it to the existing combined sewer system downstream of the work.
- B. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.
- C. The Contractor will not be permitted to stop or impede the sewer flow under any circumstances without having the primary setups operational. The bypass pumping system shall be installed, tested and ready to operate before any sewer rehabilitation or replacement is begun.
- D. The Contractor shall maintain sewer flow around the work area in a manner that will not cause surcharge or damage to tributary sewers and that will protect public, campus, and private property from damage.
- E. The Contractor shall incorporate provisions to remove water from the primary bypass pumping system to protect against freezing and damage.

3.3 FIELD QUALITY CONTROL AND MAINTENANCE

- A. Testing on Installation - The Contractor shall perform leakage and pressure tests of the bypass piping, using clean water, prior to actual operation if directed by the Owner's Representative. The test pressures shall be 1.5 times the expected operating pressures or a minimum of 10 PSI. The Owner's Representative will be given 24 hours' notice prior to testing.
- B. Routine Inspection and Maintenance

1. The Contractor shall inspect all operable bypass pumping systems every two hours or more frequently to ensure their proper operation. Principal flow bypass pumping operations shall be manned by a qualified contractor representative, familiar with pump operation and emergency procedures, 24 hours per day.
2. The Contractor shall insure that the bypass pumping system is properly maintained.

C. Extra Materials

1. Spare parts for pumps and piping shall be kept on site as required.
2. Adequate hoisting equipment for each pump and accessories shall be maintained on the site.

3.4 PREPARATION

A. Precautions

1. The Contractor is responsible for locating any existing utilities in the area selected for installation of the flow bypass pipelines. The Contractor shall minimize the disturbance of existing utilities and shall obtain approval from the Owner and Engineer for any relocation of the bypass pipeline. All costs associated with the relocation of utilities and obtaining of approvals shall be paid by the Contractor.
2. During all bypass pumping operations, the Contractor shall protect the bypass pumping facilities and existing collection system from damage inflicted by equipment. The Contractor shall be responsible for all intentional or accidental physical damage to the bypass pumping system caused by human or mechanical failure or interference.
3. During installation of the bypass pumping lines the Contractor shall make every effort to minimize the disruption of private property and the inconvenience for the Campus and neighborhood residents. The Contractor shall protect all mature vegetation and structures or other obstacles in the path of the pipeline from damage through the use of shields and buffering devices. All items that must be relocated to construct the work must be stored at a location acceptable to the Owner. In instances where fences must be disturbed for the construction of the pipeline the Owner shall be consulted to see if the installation of temporary fencing shall be required. Pre-construction videotapes will be required to document the pre-construction condition of the pipeline route.

3.5 INSTALLATION AND REMOVAL

- A. Plugging or blocking of sewage flows shall incorporate a primary and secondary plugging device. When plugging or blocking is no longer needed for performance and acceptance of work, it is to be removed in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.

- B. The Contractor shall remove all the piping, restore all property to pre-construction condition or better, and shall restore all pavement and sidewalks. The Contractor is responsible for obtaining any approvals for placement of the temporary bypass piping within public and private ways.
- C. Bypass pumping setups must be flushed with clean water prior to disassembly. All rinse water shall be returned to the sanitary sewer system.

END OF SECTION

SECTION 330500 - COMMON WORK RESULTS FOR UTILITIES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Piping joining materials.
 - 2. Piping system common requirements.

1.2 DEFINITIONS

- A. Exposed Installations: Exposed to view outdoors or subject to outdoor ambient temperatures and weather conditions.
- B. Concealed Installations: Concealed from view and protected from weather conditions and physical contact by building occupants but subject to outdoor ambient temperatures. Examples include installations within unheated shelters.

1.3 ACTION SUBMITTALS

- A. As per the Material Specification.

1.4 INFORMATIONAL SUBMITTALS

- A. As per the Material Specification.

PART 2 - PRODUCTS

2.1 PIPING JOINING MATERIALS

- A. Pipe-Flange Gasket Materials: Suitable for chemical and thermal conditions of piping system contents.
 - 1. ASME B16.21, nonmetallic, flat, asbestos free, 1/8-inch (3.2-mm) maximum thickness, unless otherwise indicated.
 - a. Full-Face Type: For flat-face, Class 125, cast-iron and cast-bronze flanges.
 - b. Narrow-Face Type: For raised-face, Class 250, cast-iron and steel flanges.
 - 2. AWWA C110, rubber, flat face, 1/8 inch (3.2 mm) thick, unless otherwise indicated; and full-face or ring type, unless otherwise indicated.

- B. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, unless otherwise indicated.
- C. Plastic, Pipe-Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer, unless otherwise indicated.
- D. Solvent Cements for Joining Plastic Piping:
 - 1. ABS Piping: ASTM D 2235.
 - 2. CPVC Piping: ASTM F 493.
 - 3. PVC Piping: ASTM D 2564. Include primer according to ASTM F 656.
 - 4. PVC to ABS Piping Transition: ASTM D 3138.
- E. Fiberglass Pipe Adhesive: As furnished or recommended by pipe manufacturer.

PART 3 - EXECUTION

3.1 PIPING INSTALLATION

- A. Install piping according to the following requirements and utilities Sections specifying piping systems.
- B. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on the Coordination Drawings.
- C. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- D. Install piping to permit valve servicing.
- E. Install piping at indicated slopes.
- F. Install piping free of sags and bends.
- G. Install fittings for changes in direction and branch connections.
- H. Select system components with pressure rating equal to or greater than system operating pressure.
- I. Provide watertight fittings.
- J. Install sleeves for pipes passing through concrete and masonry walls and concrete floor and roof slabs.

1. A wall pipe or sleeve will be required for all pipe passing through concrete or masonry block walls. Wall fittings and sleeves shall be as indicated on the Drawings and as specified in the applicable piping Specification Section.

3.2 PIPING JOINT CONSTRUCTION

- A. Join pipe and fittings according to the following requirements and utilities sections specifying piping systems.
- B. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- C. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- D. Plastic Piping Solvent-Cemented Joints: Clean and dry joining surfaces. Join pipe and fittings according to the following:
 1. Comply with ASTM F 402 for safe-handling practice of cleaners, primers, and solvent cements.
 2. ABS Piping: Join according to ASTM D 2235 and ASTM D 2661 appendixes.
 3. CPVC Piping: Join according to ASTM D 2846/D 2846M Appendix.
 4. PVC Pressure Piping: Join schedule number ASTM D 1785, PVC pipe and PVC socket fittings according to ASTM D 2672. Join other-than-schedule-number PVC pipe and socket fittings according to ASTM D 2855.
 5. PVC Nonpressure Piping: Join according to ASTM D 2855.
 6. PVC to ABS Nonpressure Transition Fittings: Join according to ASTM D 3138 Appendix.
- E. Plastic Pressure Piping Gasketed Joints: Join according to ASTM D 3139.
- F. Plastic Nonpressure Piping Gasketed Joints: Join according to ASTM D 3212.
- G. Bonded Joints: Prepare pipe ends and fittings, apply adhesive, and join according to pipe manufacturer's written instructions.
- H. Concrete collars: Areas of dissimilar pipe connections or spot repairs on pipes may require an exterior concrete collar, as noted on the plan and associated detail. Concrete that is cast for the collar shall extend around the entire perimeter of the pipe, such that it will bear onto undisturbed ground below the pipe.

END OF SECTION 330500

SECTION 330526 – UTILITY IDENTIFICATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Warning Tape to be placed in utility trenches.

B. Related Sections:

1. Division 31 Section 312000 “Earth Moving” for utility trench excavation.

C. Work Included:

The Work included in this section shall pertain to the identification of potable water, medium temperature water, fire protection water, chilled water supply/return and gas buried piping, underground electric, underground communication, underground oil or steam pipe buried in the site. The work shall also include but not be limited to the installation of identification/warning tape, copper tracing wire at non-ferrous utility pipes (as confirmed with the Owner’s Representative), and color coding on pipe.

PART 2 - PRODUCTS

2.1 IDENTIFICATION/WARNING TAPE

- A. General: Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored as follows:

1. Potable and Fire Protection Water Main Tape:
 - a. Color: Blue with Black Lettering
 - b. Lettering: “CAUTION: WATER LINE BURIED BELOW” or similar wording.
2. Condensate Water Supply / Return Main Tape:
 - a. Color: Green with Black Lettering
 - b. Lettering: “CAUTION: CONDENSATE WATER LINE BURIED BELOW” or similar wording.
3. Gas Main Tape:
 - a. Color: Yellow with Black Lettering
 - b. Lettering: “CAUTION: GAS MAIN BURIED BELOW” or similar wording.

4. Sanitary Sewer Main Tape:
 - a. Color: Green with Black Lettering
 - b. Lettering: "CAUTION: SANITARY LINE BURIED BELOW" or similar wording.
5. Storm Sewer Main Tape:
 - a. Color: Green with White Lettering
 - b. Lettering: "CAUTION: STORM LINE BURIED BELOW" or similar wording.
6. Underground Electric Tape:
 - a. Color: Red with Black Lettering
 - b. Lettering: "CAUTION: ELECTRIC LINE BURIED BELOW" or similar wording.
7. Telephone or Communications Tape:
 - a. Color: Orange with Black Lettering
 - b. Lettering: "CAUTION: COMMUNICATIONS BURIED BELOW" or similar wording.
8. Oil, MTW, or dangerous material Tape:
 - a. Color: Yellow with Black Lettering
 - b. Lettering: "CAUTION: (name of utility) BELOW" or similar wording.

All lettering on the warning tape shall appear legibly on the tape and shall run the entire length of the pipe.

B. TRACER WIRE FOR GAS LINES

1. In addition to providing a warning tape with an encased metallic core, all underground gas lines shall have a continuous, insulated 12 gauge solid copper wire, installed directly on top of the centerline of pipe for locating. Tracer wire shall be color coded yellow below the thermoplastic insulation recommended for direct bury. Wire connectors shall be water tight to provide electric continuity. Fasteners at structures to ground level shall be made of non corrosive material.

PART 3 – EXECUTION

3.1 INSTALLATION OF IDENTIFICATION/WARNING TAPE:

- A. Install warning tape directly over the piping (both ferrous and non ferrous), as shown in the Project Drawings.
- B. Install warning tape above the outside edge of the related utility structure, such that the warning tape is placed 24 inches below grade or a minimum of 12 inches above the structure. Do not embed warning tape within any asphalt or concrete pavements.

3.2 INSTALLATION OF TRACER WIRE

- A. Tracer wire shall be installed along all new non-ferrous pipes and conduits, with the exception of sanitary and storm sewer lines. The wire shall be installed directly above the respective utility and shall be placed in such a manner as to be able to properly trace all utility pipe/conduits without loss or deterioration of the signal or without the transmitted signal migrating off the tracer wire.
- B. Except for approved splice locations, tracer wire shall be continuous and without splices from each trace wire point.

END OF SECTION 330526

SECTION 331116 - WATER UTILITY PIPING

PART 1 - GENERAL

1.1 WORK INCLUDED

This section covers the furnishing and installation of 4 through 8 inch buried ductile iron (DI) pressure pipe for Domestic, Potable Water Services Lines. DI pressure pipe shall be furnished complete with all fittings, jointing materials, anchors, blocking, encasement, and other necessary appurtenances (including valves and hydrants).

In addition to coordination with the Owner's Representative, all water related work shall be reviewed and approved by the Broome County Health Department prior to any final connection work. All pressure tests and disinfection testing is subject to the approval of the Broome County Health Department.

AWWA C-150 DI Water Pipe shall be furnished where indicated on the drawings, the water main replacement work (labeled "W" on the plans), includes the following items:

- A. Ductile Iron (DI) cement lined pressure water pipe for the replacement of water mains as part of this Project.
- B. Corporation cocks, curb boxes and stops, tapping sleeves, and service clamps.
- C. 2 inch copper water disinfection line as shown on the Project Drawings.
- D. Tapped connections consisting of connections made to the proposed Ductile Iron Pipeline and existing pipe by means of the threaded or bolted attachment of a corporation cock or valve to the pipe.
- E. Pipe fittings and appurtenances
- F. Polyethylene encasement of ductile iron water lines.
- G. Pipeline Pressure and Leakage Testing
- H. Related Documents:
 - Section 312000 Earth Moving
 - Section 312500 Soil Erosion and Sedimentation Control
 - Section 331300 Cleaning and Disinfection of Water Distribution Systems
 - Section 330500 "Common Work Results for Utilities".

1.2 REFERENCES

- A. AWWA C150 DI Pressure Pipe and Fabricated Fittings, for Water Distribution

- B. AWWA C104 / ANSI A21.4 - Cement Mortar Lining for Ductile Iron Pipe and Fittings for Water; as well as AWWA C105 / ANSI A21.5 - Polyethylene Encasement for Ductile Iron Pipe Systems
- C. AWWA C110 / ANSI A21.10 - Ductile Iron and Grey Iron Fittings 3-inches through 48-inches for Water
- D. AWWA C111 / ANSI A21.11 - Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings
- E. AWWA C 151 / ANSI A21.51 - Ductile Iron Pipe, Centrifugally Cast for Water
- F. AWWA C 153 / ANSI A21.53 - Ductile Iron Compact Fittings, 3-inches through 24 inches for Water
- G. ASTM A536 – Standard Specification for Ductile Iron Castings
- I. AWWA C600 - Installation of Ductile Iron Water Mains and Their Appurtenances
- J. AWWA C800 – Underground Service Line Valves and Fittings
- K. AWWA M44 – Distribution Valves
- L. New York State Department of Health, Bureau of Public Water Supply Protection – Guidelines for Designing Backflow Prevention Assembly Installations, Supplement to the 1981 Cross Connection Control Manual.
- M. New York State Department of Transportation (NYSDOT) Standard Sheet 663-01 (Water Main Pipe Installation Details), as well as details included in the contract drawings.

1.3 SHOP DRAWINGS

- A. Submit detailed Shop Drawings and/or catalog cuts and data on all Ductile Iron Pipe and Fittings which are proposed to be used in the work. Certified copies of the manufacturer's affidavit stating that pipe and fittings were manufactured and tested in accordance with applicable provisions in the above-specified Standards shall be submitted. Prior to obtaining any material in connection with this Section, detailed shop drawings, installation guides, and data on pipes, fittings, couplings, supports, anchors, bolts, nuts, and other necessary accessories shall be submitted.
- B. For the 2 inch waterline and appurtances, the Contractor shall submit to the Owner's Representative, for review, detailed Shop Drawings and/or catalog cuts and data on all corporation cocks, curb stops and boxes, tapping sleeves, service clamps, and other appurtenances relating to a tapped connection.

PART 2 - PRODUCTS

2.2 MATERIALS

Pipe	AWWA C150 DI Pipe. Thickness Class 52
Fittings	Cast iron; ANSI/AWWA C110/A21.10, 250 psi pressure rating, except shorter laying lengths will be acceptable.
Joints:	
PVC to PVC	ANSI/AWWA C900 or C905, stab type, with elastomeric synthetic rubber gaskets. Gaskets of natural rubber will not be acceptable.
HDPE to Ductile Iron	Fully Restrained, Solid Sleeve (Ductile Iron) with HDPE – Mechanical Joint Adapter to Connect to Ductile Iron (DICT) Pipe. Coupling to meet the requirements of AWWA C219, and other requirements as noted below: Retained Rings – ASTM A536 (Ductile Iron) Coupling Sleeve – ASTM A536 (Ductile Iron) Threaded Rods and Nuts shall be Corrosion Resistant, Low Alloy, High Strength Steel per ANSI/ AWWA C111/A21.11
PVC to Cast Iron	ANSI/AWWA C111/A21.11, except gaskets shall be synthetic rubber. Natural rubber will not be acceptable.
Tapping Saddles	Ductile iron, with galvanized steel straps and synthetic rubber sealing gasket, 250 psi pressure rating.
Restrained Joints	ASTM F1674, EBAA Iron 2000 series (4 inch through 20 inch) or concrete thrust blocking.
Tapping Sleeves	Ductile iron, 250 psi pressure rating.
Polyethylene Encasement	Tube or sheet, ANSI/AWWA C105/A21.5.
Joint Tape	Self-sticking, PVC or polyethylene, 10 mils thick; Chase "Chasekote 750", Kendall "Polyken 900", or 3M "Scotchrap 50".
Coal Tar Epoxy	High-build coal tar epoxy; Ameron "Amercoat 78HB Coal Tar Epoxy", Carboline "Bitumastic 300 M", Tnemec "46H-413 Hi-Build Tneme-Tar", or Sherwin-Williams "Hi-Mil Sher-Tar Epoxy".
Conductive Tracer	Detection tape, 3 inches wide; aluminum foil core, 0.5 mil thick, encased in a protective inert plastic jacket; 5,000 psi min tensile strength; 2.5 lbs per inch per 1,000 feet min mass; color coded in accordance with APWA Uniform Color Code; Allen Systems "Detectatape", Lineguard "Type III", or Reef Industries "Terra Tape D".

Ductile Iron Pipe: Ductile Iron Pipe shall be pressure class of 350 or thicker, and the cement lining shall be 1/16 inch thick.

Ductile Iron Pipe Joints:

1. Push-on-Joint, Ductile-Iron Pipe: AWWA C151, with push-on-joint bell and plain spigot end.
2. Push-on-Joint, Ductile-Iron Fittings: AWWA C110, ductile- or gray-iron standard pattern or AWWA C153, ductile-iron compact pattern.
3. Gaskets: AWWA C111, rubber.
4. Mechanical joints may be used for closures, subject to meeting thrust restraint requirements, or as shown on the Contract Drawings. Mechanical joints shall be assembled in accordance with AWWA C111. Mechanical joints to be made with restraining glands shall be installed in compliance with manufacturer's recommendations.

Ductile Iron Fittings

1. Fittings for buried ductile iron pipe shall be ductile iron with mechanical joint unless indicated otherwise on the Contract Drawings. Mechanical joint fittings shall be compact body, manufactured and tested in accordance with AWWA C-153.
2. The pressure class for all fittings shall be 350 psi.
3. Mechanical joints for fittings shall be in accordance with AWWA C-111. The required joint accessories including ductile iron glands, high strength low-alloy steel tee bolts and nuts, plain backed rubber gaskets, and joint lubricant shall be supplied by the pipe manufacturer.

Gate Valves

1. Nonrising-Stem, High-Pressure, Resilient-Seated Gate Valves:
 - a. Description: Ductile-iron body and bonnet; with bronze or ductile-iron gate, resilient seats, bronze stem, and stem nut.
 - 1) Standard: AWWA C509.
 - 2) Minimum Pressure Rating: 250 psig .
 - 3) End Connections: Mechanical Joint.
 - 4) Interior Coating: Complying with AWWA C550.
 - B. Valve Boxes: Comply with AWWA M44 for cast-iron valve boxes. Include top section, adjustable extension of length required for depth of burial of valve, plug with lettering "WATER," and bottom section with base that fits over valve and with a barrel approximately 5 inches in diameter.

F. 2 inch Water Service Pipe (Temporary Disinfection & Blow-off):

1. Pipe: ASTM B88 Type K Copper Water tubing
2. Pipe Wall Thickness: Unless otherwise shown or specified, seamless copper tube shall be Type K, soft flare type. Installation of Type L or Type M tubing will not be permitted.
3. Temper: Seamless copper tubing installed underground shall have soft temper. Where exposed within structures, copper tubing shall be of hard temper.
4. Fittings: Unless otherwise shown, specified, or directed copper tubing installed underground shall have flared type brass joints and fittings with screwed unions.
5. Corporation Stops: Bronze construction, flared joint Ford Meter Box Company # FB 600 Ballcorp, or as manufactured by Mueller, Hayes, Red Hed or equal. Comply with AWWA C800.
6. Curb Stops (if required) Bronze construction, flared joint Ford Meter Box Company ball valve, Mueller "Oriseal", Red Hed, Hayes "Nuseal" or equal. Comply with AWWA C800.

G. Fire Hydrants –

Dry-Barrel Fire Hydrants:

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Mueller Co.; Water Products Div.
 - b. Kennedy Valve, a division of McWane, Inc.
 - c. East Jordan Iron Works, Inc.
 - d. American Foundry Group, Inc.
3. Description: Freestanding, with one NPS 4-1/2 and two NPS 2-1/2 outlets, 5-1/4-inch main valve, drain valve, and NPS 6 mechanical-joint inlet. Include interior coating according to AWWA C550. Hydrant shall have cast-iron body, compression-type valve opening against pressure and closing with pressure.
 - a. Standard: AWWA C502.
 - b. Pressure Rating: minimum 250 psig.

H. Polyethylene encasement for ductile iron water lines. – Encasement material shall be 8-mil thick polyethylene conforming to AWWA C105.

PART 3 - EXECUTION

3.1 INSPECTION. Pipe and fittings shall be carefully examined for cracks and other defects immediately before installation; spigot ends and bells shall be examined with particular care. All defective pipe and fittings shall be removed from the site of the work.

3.2 LAYING PIPE. Pipe shall be protected from lateral displacement by pipe embedment material installed as specified in the Trenching and Backfilling section. Pipe shall not be laid in water or other unsuitable conditions.

Pipe shall be laid with bell ends facing the direction of laying, except when reverse laying is specifically permitted by Owner's Representative.

Foreign matter shall be prevented from entering the pipe during installation.

Whenever pipe laying is stopped, the open end of the line shall be sealed with a watertight plug. All water shall be removed from the trench prior to removing the plug.

- A. Cleaning. The interior of all pipe and fittings shall be thoroughly cleaned before installation and shall be kept clean until the work has been accepted.
- B. Alignment. Piping shall be laid to the lines and grades indicated on the drawings. Pipelines or runs intended to be straight shall be laid straight. Deflections from a straight line or grade shall not exceed the maximum deflections specified by the manufacturer.

Unless otherwise specified or indicated on the drawings, and subject to acceptance by Owner's Representative, either shorter pipe sections or fittings shall be installed as required to maintain the indicated alignment or grade.

3.3 CUTTING PIPE. Cutting shall comply with the pipe manufacturer's recommendations and with Chapter 7 of AWWA Manual M23. Cuts shall be smooth, straight, and at right angles to the pipe axis. After cutting, the end of the pipe shall be dressed to remove all roughness and sharp corners and shall be beveled in accordance with the manufacturer's instructions.

3.4 JOINTS. Joints shall be stab-type unless otherwise indicated on the drawings. All buried pipe to be restrained.

- A. Stab Type Joints. Jointing shall conform to the instructions and recommendations of the pipe manufacturer. All surfaces for gasketed joints shall be lubricated immediately before the joint is completed. Gaskets and lubricants shall be supplied by the pipe manufacturer, shall be suitable for use in potable water, shall be compatible with the pipe materials, shall be stored in closed containers, and shall be kept clean. Each spigot shall be suitably beveled to facilitate assembly.
- B. Mechanical Joints. Mechanical joints shall be carefully assembled in accordance with the manufacturer's recommendations. If effective sealing is not obtained, the joint shall be disassembled, thoroughly cleaned, and reassembled. Over-tightening of bolts to compensate for poor installation practice will not be permitted.

3.5 CONNECTIONS WITH EXISTING PIPING. Connections with existing pipes shall be made using fittings suitable for the conditions encountered. Each connection with an existing pipe shall be made at a time and under conditions which will least interfere with service to customers, and as authorized by Owner. Facilities shall be provided for proper dewatering and for disposal of water removed from the dewatered lines and excavations without damage to adjacent property.

Special care shall be taken to prevent contamination of potable water lines when dewatering, cutting into, and making connections with existing pipe. No trench water, mud, or other contaminating substances shall be permitted to enter the lines. The interior of all pipe, fittings, and valves installed in such connections shall be thoroughly cleaned and then swabbed with, or dipped in, a 200 mg/L chlorine solution.

- 3.6 SERVICE CONNECTIONS. Tapping saddles or tapping sleeves shall be used for all service connections 2 inches and smaller. Direct tapping of PVC pipe will not be permitted. Fittings shall be used for service connections larger than 2 inches.
- 3.7 CONCRETE ENCASUREMENT. Concrete encasement shall be installed as indicated on the drawings. Concrete and reinforcing steel shall be as specified in the Cast-in-Place Concrete section. All pipe to be encased shall be suitably supported and blocked in proper position and shall be anchored against flotation.
- 3.8 RESTRAINED JOINTS. All bell-and-spigot or all-bell tees (including hydrant connections), Y-branches, bends deflecting 11-1/4 degrees or more, valves, and plugs which are installed in piping subjected to internal hydrostatic heads in excess of 30 feet shall be provided with suitable restraint.

Concrete blocking shall extend from the fitting to solid, undisturbed earth and shall be installed so that all joints are accessible for repair. The dimensions of concrete reaction blocking shall be as indicated on the drawings or as directed by Engineer.

Concrete thrust blocks are detailed on the project drawings. The contractor also has the option to provide fully restrained joints if there is inadequate clearance for concrete thrust block installation. All thrust restraint devices must meet the requirements of ASTM F1674.

Reaction blocking, anchorages, or other supports for fittings installed in fills or other unstable ground shall be provided as indicated by the drawings or as directed by Engineer.

Thrust restraint at hydrant connections: if the installation of concrete thrust blocks cannot be achieved due to unsuitable soils, two 3/4" diameter tie rods are to be installed (as per the fire hydrant assembly detail on the project drawings).

All steel clamps, rods, bolts, and other metal accessories used in tapping saddles or reaction anchorages subject to submergence or in contact with earth or other fill material, and not encased in concrete, shall be coated in accordance with the Protective Coatings section.

All steel clamps, rods, bolts, and other metal accessories used in tapping saddles or reaction anchorages subject to submergence or in contact with earth or other fill material, and not encased in concrete, shall be protected from corrosion by two coats of medium consistency coal tar applied to clean, dry metal surfaces. The first coat shall be dry and hard before the second coat is applied.

- 3.09 PRESSURE AND LEAKAGE TESTS. After installation, DI piping shall be hydrostatically tested for defective workmanship and materials as specified in the Pipeline Pressure and Leakage Testing – Part 3.16 of this Specification Section. Testing of piping system shall be completed prior to final cleaning and disinfection.

3.10 LEAKAGE. All DI piping shall be watertight and free from leaks. Each leak which is discovered within the correction period stipulated in the General Conditions shall be repaired by and at the expense of Contractor.

3.11 CLEANING and DISINFECTION – Refer to Section 331300.

3.12 Installation of 2 inch water service line (Disinfection Tap):

1.) The maximum size threaded taps permitted are listed as follows:

	PIPE SIZE (inches)						
	4	6	8	12	16	20	24 and larger
Ductile Iron Pipe With Service Clamp	2	2	2	2	2	2	2
Without Service Clamp	1	1½	1¾	2	2	2	2
Polyvinyl Chloride Pipe With Service Clamp Only	-	2	2	2	2	2	2

Notes Regarding Service Taps:

- Tapped connections shall be installed only by or under the direction of personnel who have performed similar operations for at least five years.
- Curb stops shall be located where directed by the Owner’s Representative and shall be properly jointed and supported.
- Threaded taps shall be performed using machines which are satisfactory for cutting, threading, and inserting a corporation cock in the pipe while the pipe is under pressure and without disrupting service.

2.) Active Services: Contractor to install corporation stop, copper pipe, and connect to existing service pipe using an approved coupling. If disturbed, curb boxes shall be re-set plumb and adjusted to the proper elevation. Boxes shall be independently supported by two bricks (or a 4”x8”x16” concrete block) and shall not ride on the curb stop. If the trench has settled, service boxes shall be readjusted to the final grade.

3.) Piping System for 2” Copper: Install pipe using one continuous length with no intermediate fittings between the point of connection to the existing service pipe. Handle and install all materials in accordance with the recognized manufacturer or industry standards; use proper tools and employ high quality workmanship. Install warning tape in the trench, as per Section 330526.

4. Cleaning and Disinfection of Copper Water Service Line:

- Prevent contamination of the service line and water supply.

- Prior to connecting the new service line, thoroughly flush the service line with potable water until the water runs clear for at least one minute. Dispose of flushed water without damaging property.
- Disinfect the service line in accordance with Section 331300.

5. Backfill and Restoration of Copper Water Service Line:

- Pressure test the service lines as outlined in Part 3.16.
- Bed with sand, and backfill and compact as shown on the drawings, and the relevant specification sections.
- Return all surfaces and other disturbed structures to a condition equal to or better than the condition at the start of construction. Refer to Section 310100 (Maintenance of Earthwork).

3.12 ANCHORAGE INSTALLATION

- A. Anchorage, General: Install water-distribution piping with restrained joints. Anchorages and restrained-joint types that may be used include the following:
 - 1. Concrete thrust blocks.
 - 2. Locking mechanical joints.
- B. Install anchorages for tees, plugs and caps, bends, crosses, valves, and hydrant branches. Include anchorages for the following piping systems:
 - i. Gasketed-Joint, Ductile-Iron, Water-Service Piping: According to AWWA C600.
- C. Apply full coat of asphalt or other acceptable corrosion-resistant material to surfaces of installed ferrous anchorage devices.

3.13 VALVE INSTALLATION

- A. AWWA Gate Valves: Comply with AWWA C600 and AWWA M44. Install each underground valve with stem pointing up and with valve box.
- B. AWWA Valves Other Than Gate Valves: Comply with AWWA C600 and AWWA M44.
- C. UL/FMG, Valves Other Than Gate Valves: Comply with NFPA 24.
- D. Corporation Valves and Curb Valves: Install each underground curb valve with head pointed up and with service box.

3.14 TRENCH INSTALLATION – Refer to Section 312000 “Earth Moving”.

3.15 UTILITY IDENTIFICATION – Refer to Section 330526 “Utility Identification”.

3.16 PIPELINE PRESSURE AND LEAKAGE TESTING

- A. Contractor shall notify local regulatory agencies to determine if any special procedures or

permits are required for disposal of water used for pressure and leakage testing and to identify acceptable locations for disposal of the water. All requirements and costs associated with notifications and obtaining any discharge permit or approvals shall be responsibility of Contractor.

Owner's Representative shall be present during testing and shall be notified of the time and place of testing at least 3 days prior to commencement of the work. All work shall be performed to the satisfaction of Owner's Representative. Refer to Exhibit A at the end of this Section (Contractor's Material and Test Certificate for Underground Piping).

- B. Testing Schedule and Procedure. A testing schedule and test procedure shall be submitted to the Owner's Representative for review and acceptance not less than 21 days prior to commencement of testing. The schedule shall indicate the proposed time and sequence of testing of the piping. The testing procedure shall establish the limits of the piping to be tested, the positions of all valves during testing, the locations of temporary bulkheads, and all procedures to be followed in performing the testing.
- C. Special Testing Requirements. Special testing requirements include the following:
- Initial flushing and cleaning of pipeline.
 - Filling pipeline.
 - Hydrostatic pressure and leakage testing.
 - Disinfection.
 - Final cleaning, flushing, and neutralization of heavily chlorinated water.
 - Bacteriological tests.

Unless otherwise acceptable, temporary bulkheads shall be provided during testing so that the test pressures are not applied to existing or new valves and hydrants, or to existing water lines, or to any portion of water lines installed under this Contract that have already been put into service.

A temporary pressure gauge shall be installed at each end of the limits of the pipeline to be tested.

The tests shall be conducted before connections are made to existing water lines, or to any portion of water lines installed under this Contract that have already been put into service.

All auxiliary hydrant valves shall be closed during pressure testing so that the test pressure is not applied to the hydrant valves.

Unless otherwise acceptable, upon completion of testing and disinfection, connections made to existing water lines or to any portion that has been put into service of new water lines installed under this Contract, shall be visually inspected for leakage after placing the water line into service and before backfilling the connection.

- D. Water. Water for testing shall be furnished from on-site facilities, Contractor to Coordinate with Owner. The water shall be kept out of the remainder of the piping.
- E. Test Equipment. All necessary connections between the piping to be tested and the water

source, together with pumping equipment, water meter, pressure gauges, and all other equipment, materials, and facilities required to perform the specified tests, shall be provided by the Contractor. All required flanges, valves, bulkheads, bracing, blocking, and other sectionalizing devices shall also be provided. All temporary sectionalizing devices shall be removed upon completion of testing. Vents shall be provided in test bulkheads where necessary to expel air from the piping to be tested.

Test pressures shall be applied by means of a force pump sized to produce and maintain the required pressure without interruption during the test.

Water meters and pressure gauges shall be accurately calibrated and shall be subject to review and acceptance by Owner's Representative.

Permanent gauge connections shall be installed at each location where test gauges are connected to the piping during the required tests. Drilling and tapping of pipe walls will be permitted. Upon completion of testing, each gauge connection shall be fitted with a removable plug or cap acceptable to Owner's Representative.

F. Testing Procedure:

1.0 FILLING AND VENTING. Before filling the piping with water, care shall be taken to ensure that all air release valves and other venting devices are properly installed and in the open position. Hand-operated vent valves shall not be closed until an uninterrupted stream of water is flowing from each valve. The rate of filling the piping with water must not exceed the venting capacity of the installed air vent valves and devices.

2.0 BLOCKING AND BACKFILLING. Piping shall be adequately blocked, anchored, and supported before the test pressure is applied.

3.0 PRESSURE TESTING. After the piping to be tested has been filled with water, the test pressure shall be applied and maintained without interruption within plus or minus 5 psi of test pressure for 2 hours plus any additional time required for the Owner's Representative to examine all piping being tested and for Contractor to locate any defective joints and pipe materials.

a. Pipeline Hydrostatic Pressure Test: All piping and attached appurtenances subjected to system working pressure shall be hydrostatically tested at gauge pressure of 200 psi (13.8 bar) or 50 psi (3.4 bar) in excess of the system working pressure, whichever is greater, and shall maintain that pressure at gauge pressure of ± 5 psi (0.34 bar) for 2 hours.

b. Acceptable test results shall be determined by indication of either a pressure loss less than gauge pressure 5 psi and by no visual leakage.

c. The test pressure shall be read from the following, located at the lowest elevation of the system or the portion of the system being tested:

1. A gauge located at one of the hydrant outlets.

2. A gauge located at the lowest point where no hydrants are provided.

d. The trench shall be backfilled between joints before testing to prevent movement of

the pipe.

- e. Where required for safety measures presented by the hazards of open trenches, the pipe and joints shall be permitted to be backfilled, providing the Contractor takes responsibility for locating and correcting any leakage.

4.0 PIPING LEAKAGE. All piping shall be watertight and free from leaks. Each leak that is discovered within the correction period stipulated in the General Conditions shall be repaired by and at the expense of Contractor.

5.0 PIPELINE LEAKAGE TESTING. Following completion of pressure testing and acceptance by Consultant, the pipeline piping shall be subjected to a leakage test. The duration of the leakage test shall be 2 hours plus the additional time required for the Owner's Representative to make an accurate determination of leakage.

- a. Leakage Test Pressure. The hydrostatic pressure maintained during the leakage test shall be at least 75 percent, but not more than 100 percent, of the pressure specified for pressure testing of the piping and shall be maintained within plus or minus 5 psi during the entire time that leakage measurements are being performed.
- b. Leakage Measurement. Measurement of leakage shall not be attempted until all trapped air has been vented and a constant test pressure has been established. After the pressure has stabilized, piping leakage shall be measured with a suitable water meter installed in the pressure piping on the discharge side of the force pump.
- c. Allowable Leakage. The term "leakage", as used herein, refers to the total amount of water that must be introduced into the piping during the leakage test to maintain the test pressure.

No piping will be accepted if and while it exhibits a leakage rate in excess of that determined by the indicated formulas:

$$Q = 0.0075 \text{ DLN (using inch-pound units)}$$

Where

Q = allowable leakage in gallons per hour

D = nominal diameter of pipe in inches

L = length of section tested in thousand feet

N = square root of average test pressure in pounds per square inch

Whenever the piping to be tested contains pipe of different diameters, the allowable leakage shall be calculated separately for each diameter and the corresponding length of piping. The resulting allowable leakage rates shall be added to obtain the total allowable leakage for the entire piping.

All joints in piping shall be watertight and free from visible leaks during the leakage test. Each leak that is discovered within the correction period shall be repaired by and at the

expense of Contractor regardless of the amount that the total leakage may have been below the specified allowable leakage rate during the leakage test.

If the leakage test indicates a higher than allowable leakage rate, Contractor shall locate and repair leaking joints and other defective work to the extent necessary to reduce the leakage to an acceptable value.

EXHIBIT A

CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING

Contractor's Material and Test Certificate for Underground Piping

PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, contractor, and the State Fire Marshal. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

Property Name				
Property Address	City	State	Zip	

PLANS	Accepted by approving authorities (names)				
	Address				
	Installation conforms to accepted plans	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	Equipment used is approved	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	If no, state deviations				

INSTRUCTIONS	Has person in charge of fire equipment been instructed as to location of control valves and care and maintenance of this new equipment? If no, explain				
		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	Have copies of appropriate instructions and care and maintenance charts been left on premises? If no, explain				
		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

LOCATION	Supplies buildings
-----------------	--------------------

UNDERGROUND PIPES AND JOINTS	Pipe types and class	Type joints			
	Pipe conforms to _____ Standard	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	Fittings conform to _____ Standard	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	Joints needed anchorage clamped, strapped or blocked in accordance with _____ standard		<input type="checkbox"/>	Yes	<input type="checkbox"/>

TEST DESCRIPTION	<p>FLUSHING: Flow the required rate until water is clear as indicated by no collection of foreign material in burlap bags at outlets such as hydrants and blow-offs. Flush at flows not less than 390 GPM (1476 L/min) for 4-inch pipe, 880 GPM (3331 L/min) for 6-inch pipe, 1560 GPM (5905 L/min) for 8-inch pipe, 2440 GPM (9235 L/min) for 10-inch pipe, and 3520 GPM (13323 L/min) for 12-inch pipe. When supply cannot produce stipulated flow rates, obtain maximum available.</p>			
	<p>HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (13.8 bars) for two hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.3 bars) for two hours.</p>			
	<p>LEAKAGE: New pipe laid with rubber gasketed joints shall, if the workmanship is satisfactory, have little or no leakage at the joints. The amount of leakage at the joints shall not exceed 2 quarts per hour (1.89 L/hr) per 100 joints irrespective of pipe diameter. The leakage shall be distributed over all joints. If such leakage occurs at a few joints, the installation shall be considered unsatisfactory and necessary repairs made. The amount of allowable leakage specified above can be increased by 1 fl oz per inch valve diameter per hour (30 mL/25 mm/hr) for each metal seated valve isolating the test section. If dry barrel hydrants are tested with the main valve open so the hydrants are under pressure, an additional 5 oz per minute (150 mL/min) leakage is permitted for hydrant.</p>			

FLUSHING TESTS	New underground piping flushed according to _____ standard by (company)				
		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	If no, explain				
	How flushing flow was obtained	Through what type of opening			
<input type="checkbox"/> Public water	<input type="checkbox"/> Tank or reservoir	<input type="checkbox"/> Fire pump	<input type="checkbox"/> Hydrant butt	<input type="checkbox"/> Open pipe	
	Lead-ins flushed according to _____ standard by (company)				
		<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
	If no, explain				
	How flushing flow was obtained	Through what type of opening			
	<input type="checkbox"/> Public water	<input type="checkbox"/> Tank or reservoir	<input type="checkbox"/> Fire pump	<input type="checkbox"/> Y connection to flange spigot	<input type="checkbox"/> Open pipe

HYDROSTATIC TEST	All new underground piping hydrostatically tested at _____ psi for _____ hours		Joints covered <input type="checkbox"/> Yes <input type="checkbox"/> No	
LEAKAGE TEST	Total amount of leakage measured _____ gallons _____ hours			
	Allowable leakage _____ gallons _____ hours			
HYDRANTS	Number installed	Type and make	All operate satisfactorily <input type="checkbox"/> Yes <input type="checkbox"/> No	
CONTROL VALVES	Water control valves left wide open If no, state reason		<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Hose threads of fire department connections and hydrants interchangeable with those of the fire department answering alarm		<input type="checkbox"/> Yes	<input type="checkbox"/> No
REMARKS	Date left in service _____ _____			
Signature	Name of installing contractor			
	Contractor's Address		City	State Zip
	Tests witnessed by			
	For property owner (signed)		Title	Date
	For installing contractor (signed)		Title	Date
Additional Explanation and Notes:				

END OF SECTION

SECTION 331300 – CLEANING AND DISINFECTION OF WATER DISTRIBUTION SYSTEMS

PART 1 - GENERAL

1.1 SCOPE. This Section covers cleaning and disinfection of all potable water lines installed under this Contract.

1.2 GENERAL.

- A. Coordination. Contractor shall coordinate flushing and disinfection work with adjacent work as necessary to preclude work interferences or duplication of effort and to expedite the overall progress of the work.

Contractor shall provide all necessary piping, piping connections, temporary valves, backflow preventers, flow meters, sampling taps, pumps, disinfectant, neutralization agents, chlorine residual test apparatus, and all other items of equipment or facilities necessary to complete the disinfection work.

Water for flushing and disinfection work will be provided as stipulated in the Temporary Facilities section.

In all cases where it is necessary to interrupt service, permission of Owner shall be obtained at least two days before the service will be interrupted.

Unless otherwise specified, final cleaning work shall not be performed until after hydrostatic testing of the lines and any resulting repair work completed.

The Contractor shall notify the Engineer prior to the work to allow the Engineer to be present during cleaning and / or disinfection of the water lines.

- B. Related Work. Other sections directly related to Work covered in this section are:

331116 –Water Utility Piping

- C. Governing Standard. All disinfection work shall conform to the requirements of ANSI/AWWA C651. If any local requirements conflict with the provisions of this section, the local requirements shall govern.

1.3 SUBMITTALS.

- A. Cleaning and Disinfection Plan. Contractor shall submit a detailed cleaning and disinfection plan to Engineer at least 14 days prior to starting any cleaning and disinfection work. The plan shall cover the method and procedure proposed, necessary coordination, qualification of personnel performing the disinfection work, sequence of operations, the limits of the pipelines to be cleaned and disinfected, the positions of all valves, location of temporary bulkheads, materials and quantities of each to be used, equipment to be used, manner of filling and flushing the pipelines, chlorine injection points, sample points, bacteriological testing location and schedule, potable water source, method of metering the water if required, neutralization and disposal of wasted water, and all other methods and procedures to be followed in

performing the cleaning and disinfection work.

- B. Testing. Bacteriological testing shall be performed by Contractor.

The chlorine residual test shall be performed by Contractor. The test log shall be made available to Consultant upon request and shall be provided to Consultant upon completion of all chlorine residual testing.

- C. Project Record Documents.

- a. Disinfection Report. Disinfection Report shall include:

1. Type and form of disinfectant used.
2. Date and time of disinfectant injection start and time of completion.
3. Test locations.
4. Initial and 24-hour disinfectant residuals (quantity in treated water) in ppm for each outlet tested.
5. Date and time of flushing start and completion.
6. Disinfectant residual after flushing in ppm for each outlet tested.

- b. Bacteriological, Chemical and Organic Chemical Report shall include:

1. Date issued, project name and testing laboratory name, address and telephone number.
2. Time and date of water sample collection.
3. Name of person collecting samples.
4. Test locations.
5. Initial and 24-hour disinfectant residuals in ppm.
6. Coliform bacteria and chemical test results.
7. Certification that water conforms or fails to conform to New York State drinking water standards.
8. Laboratory Director's signature and authority

- D. Qualifications.

- a. Water Treatment Firm: Company specializing in disinfecting potable water systems specified in this Section with minimum three (3) years experience.
- b. Testing Firm: Company specializing in testing potable water systems, approved by the New York State Department of Health.

1.4 QUALITY ASSURANCE.

- A. Chlorine Residual Tests. Contractor shall provide the necessary apparatus for making the chlorine residual tests by the drop dilution method as set forth in Appendix A of ANSI/AWWA C651. Test results shall be recorded in a logbook that includes for each test: the location, date, time, test results, and test kit manufacturer.
- B. Bacteriological Tests. Sampling and testing of water in the lines shall be performed after final flushing in accordance with Section 5 of ANSI/AWWA C651, including a standard heterotrophic plate count for each sample.
- C. Redisinfection. Should the bacteriological tests indicate the presence of coliform organisms at

any sampling point, the lines shall be reflashed, resampled and retested. If check samples show the presence of coliform organisms, then the lines shall be rechlorinated until acceptable results are obtained.

PART 2 - PRODUCTS

- 2.1 MATERIALS. All materials furnished by Contractor shall conform to the requirements of ANSI/AWWA C651 and shall be clean and free of debris that could infer questionable test results.
- A. Liquid Chlorine. Liquid chlorine shall conform to AWWA B301.
 - B. Calcium Hypochlorite (Dry). Calcium hypochlorite shall conform to AWWA B300.
 - C. Sodium Hypochlorite (Solution). Sodium hypochlorite shall conform to AWWA B300.
 - D. Chlorine Residual Test Kit. Chlorine, residual concentration shall be measured using an appropriate range, drop count, titration kit or an orthotolidine indicator comparator with wide range color discs. The color disc range shall be selected to match chlorine concentration limits. Test kits shall be maintained in good working order and available for immediate test of residuals at point of sampling. Test kits manufactured by Hach Chemical or Hellige are acceptable.

PART 3 - EXECUTION

3.1 APPLICATION.

- A. Cleaning. Pipelines, including all associated valves and fittings, shall be cleaned to the satisfaction of the Consultant.

Small domestic pipelines shall be cleaned per ANSI/AWWA 651 by flushing with water at the maximum velocity which can be developed, but not less than 3 feet per second, unless otherwise permitted by Engineer. Flushing shall continue until the pipeline is free of dirt, debris, and other foreign materials. Fire service pipelines shall be flushed in accordance with NFPA 24. Cleaning shall precede disinfection.

Large pipelines may be flushed as specified for small pipelines, cleaned with a hose, or cleaned by other methods acceptable to Engineer. Flushing or other cleaning methods shall continue until the pipeline is free of dirt, debris, and other foreign materials. Cleaning shall precede disinfection.

Flushing shall be accomplished through the installed valves or fittings, blow-offs or through temporary flushing connections installed for that purpose.

Booster pumps shall be used if needed to obtain the necessary volume or velocity of water. Pumping equipment installed under this Contract shall not be used for flushing, nor shall the

flushing water be passed through them or other installed equipment; temporary bypass piping at each pump or installed equipment shall be provided as needed.

B. Disinfection Procedure.

Follow the requirements of the most recent version of AWWA C651 for disinfection procedures.

The new pipelines shall be disinfected by the tablet method, continuous feed method, or slug method. Potable water shall be used in conjunction with the chlorination agent.

For the continuous feed or slug method, the chlorination agent shall be injected into the line at the supply end of each new line or valved section thereof.

Admission of disinfectant solution into or the flushing thereof through existing mains shall be held to the minimum possible, and then only after adequate measures have been taken to prevent any such solution of chlorinated wastewater from entering branch service connections to water customers.

During disinfection, all valves and hydrants shall be operated to ensure that all appurtenances are disinfected. Valves shall be operated such that the chlorine solution in the line being chlorinated will not flow back into the supply line. Check valves shall be used if needed.

Existing mains which may become contaminated during work requiring connections to the new water line, involving either tapping or cutting into operations, shall be flushed and disinfected in accordance with Sections 4 and 5 of AWWA C651. Provide initial chlorine concentration of 25 mg/l during disinfection. Provide minimum contact time of 16 hours. Free chlorine residuals shall not exceed chlorine concentrations of 5 mg/ L.

chlorination, but before sampling and bacteriological testing, all heavily chlorinated water shall be removed from the lines by flushing with potable water until the chlorine residual in the lines is not higher than that generally prevailing in the adjacent existing system. Final flushing shall be accomplished as specified for cleaning of pipelines (minimum 3 ft/sec, refer to AWWA C651). Prior to placing system into service, provide flushing in accordance with Part 10 of NFPA-24 to provide flushing rates that meet the required velocity of 10 ft/sec as noted by NFPA-24. Review flushing method with Owner's Representative and Engineer prior to performing flushing at the rate published in NFPA-24.

D. Disposal of Chlorinated Wastewater. All chlorinated wastewater to be discharged shall be neutralized by chemical treatment and disposed in accordance with the requirements of the governing agency specified herein. Schedule and coordinate rates of flow and locations of discharge of disinfection and flushing water with Engineer and local regulatory agencies (Broome County Health Department, and Town of Dickinson Wastewater Treatment Plant) to ensure compliance with all applicable rules and regulations.

END OF SECTION 331300

SECTION 333313 - SANITARY UTILITY SEWER PIPING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Sanitary Sewer Pipe and fittings, including connections and testing.
 - 2. Cleanouts.
 - 3. Installation of sanitary sewer piping and related fittings.
- B. Related Sections:
 - 1. Division 31 Section "Earth Moving" for excavation, trenching, and backfilling requirements.
 - 2. Division 31 Section "Dewatering" for dewatering requirements.
 - 3. Division 32 Section "Aggregates for Earthwork" for aggregates for backfill around pipe.
 - 4. Division 33 Section 330500 "Common Work Results for Utilities".
 - 5. Division 33 Section "330132 "Sewer Bypass Pumping".

1.2 DEFINITIONS

- A. HDPE: High density polyethylene plastic.
- B. PE: Polyethylene plastic.
- C. PVC: Polyvinyl chloride plastic

1.3 QUALITY ASSURANCE

- A. Required Tests:
 - a. After alignment tests have been completed, and before flows are allowed in the line, conduct leakage tests.
 - b. Test entire system for exfiltration in presence of Owner's Representative. Limit leakage to 100 gal. per inch of pipe dia. per mile of length per 24 hr.
 - c. Limit leakage to stated maximum limit, except that an allowance of an additional 10% of gallonage will be allowed for each additional 2 ft. of head over a basic 2 ft. minimum above all pipe soffits.
 - d. Contractor to pay for all leakage tests and required repairs and reconstruction.

1.4 SUBMITTALS

- A. Gravity Main Sewer Pipe: Provide Manufacturer's Certificate to certify that pipe and fittings have been inspected and tested at the point of origin, and are in compliance with specified requirements.
- B. Coordination Drawings: Show pipe sizes, locations, and elevations. If applicable, show other piping in same trench and clearances from storm drainage system piping.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not store plastic pipe, and fittings in direct sunlight.
- B. Protect pipe, pipe fittings, and seals from dirt and damage.
- C. Handle manholes according to manufacturer's written rigging instructions.

1.6 PROJECT CONDITIONS

- A. Interruption of Existing Sanitary Sewer Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:
 - 1. Notify Owner's Representative no fewer than four days in advance of proposed interruption of service.
 - 2. Do not proceed with interruption of service without Owner's written permission.

PART 2 - PRODUCTS

2.1 PIPE AND FITTINGS

- A. SDR 35 PVC Gravity Sewers: SDR 35 Polyvinyl chloride (PVC) pipe and fittings shall conform to ASTM D3034, SDR 35.
 - 1. Manufacture SDR 35 pipe from Type 1, Grade 1, PVC 12454-C conforming to ASTM D1784 and meeting requirements of ASTM D2122 and ASTM D2412.
 - 2. Pipe shall have integral wall thickened bells or extruded couplings with gasket seals. Solvent weld joints will not be permitted.
 - 3. Pipe joints shall be gasket push-on type (bell and spigot) complying with ASTM D3212 and ASTM F477.
 - 4. Pipe shall be UL/FM approved.
 - 5. Fittings shall conform to the same specifications as pipe in which they are to be installed.
- B. Cast Iron soil pipe and fittings for traps: Conform to ASTM A74, heavy duty weight bell and spigot pipe with the following acceptable gasket types:
 - 1. Dual Tite

2. Rich-Seal
3. Ty-Seal
4. Approved Equal

PART 3 - EXECUTION

3.1 PIPING INSTALLATION

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground sanitary sewer piping. Location and arrangement of piping layout take into account design considerations. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.
- B. Grade trench bottom to indicated elevation of pipeline and shape bottom of trench so that pipe will be uniformly supported along entire length of barrel.
- C. Pipe installation and jointing shall be in accord with pipe manufacturer's specifications and instructions for type of pipe used and applicable requirements specified herein. All pipe having a defective joint, bell, or spigot is unacceptable, shall be rejected, removed from site, and replaced with an acceptable unit.
- D. Install pipe to homing mark on spigot. On field cut pipe, provide a homing mark on spigot end in accord with manufacturer's recommendations.
- E. Maintain pipe alignment and joint closure until sufficient haunching and backfill is in place to adequately hold pipe in position.
- F. Prevent foreign materials from entering pipe while it is being placed in trench. Do not place debris, tools, articles of clothing, or other materials in pipe at any time.
- G. As each length of pipe is placed in trench, assemble joints and bring pipe to intended line and grade. Bed and secure pipe in place.
- H. When pipe laying is delayed for 10 min. or more, close open ends of pipe using a watertight plug or other approved means to ensure that absolute cleanliness is maintained inside pipe.
- I. At penetrations of manhole and similar structures, smoothly cut penetrating ends of pipe parallel to interior surface of structure. Maximum interior protrusion of pipe shall be the minimum necessary for proper sealing of pipe connection to structure. Use resilient connectors as indicated on the project drawings.
- J. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements.
- K. Install aggregate at sides and over top of pipe. Install top cover to minimum compacted thickness of 12 inches, compact to 95 percent, per ASTM D1557 (refer to Section 312000, "Earth Moving").

- L. Blocking will not be permitted under the pipe.
- M. No pipe shall be laid upon a foundation in which frost exists nor at any time when the Owner's Representative shall deem that there is danger of the formation of ice or the penetration of frost at the bottom of the excavation.
- N. Refer to Division 31 Section "Earth Moving" for backfilling and compacting requirements. Do not displace or damage pipe when compacting.
- O. Pipe Jointing: Install pipe, fittings, and accessories in accordance with ASTM D2321. Seal joints watertight. Pipe installation and jointing shall be in accord with pipe manufacturer's specifications and instructions for type of pipe used and applicable requirements specified herein.
- P. Ensure that interior of pipe and jointing seal is free of sand, dirt, trash, or other foreign materials before installation. All pipe or fitting that has been installed containing dirt or other deleterious material shall be removed, cleaned, and relaid. Extreme care shall be taken to keep bells of pipe free from sand, dirt, or rocks so that joints may be properly assembled without overstressing the bells.
- Q. Reconnect existing service laterals as they are encountered along the pipe run to be replaced. Lateral connection details are provided in the plans.
- R. Refer to Division 33 Section "Sewer Bypass Pumping" for bypass requirements during pipe installation.

3.2 IDENTIFICATION

- A. Materials and their installation are specified in Division 33 Section "Utility Identification." Arrange for installation of warning tape directly over piping and at outside edge of underground sanitary structures.

3.3 FIELD QUALITY CONTROL

- A. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.
- B. Inspect gravity pipe for proper slope prior to backfill. Four inch diameter pipe shall have a minimum slope of 1/8 inch per foot.
 - 1. Submit separate reports for each system inspection.
 - 2. Defects requiring correction include the following:
 - a. Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
 - c. Damage: Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.

- e. Exfiltration: Water leakage from or around piping. Refer to Part 1.3A of this Specification.
- 3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
- 4. Reinspect and repeat procedure until results are satisfactory.
- C. Leaks and loss in test pressure constitute defects that must be repaired.
- D. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

3.4 CLEANING

- A. Clean interior of piping of dirt and superfluous materials.

END OF SECTION 333313

SECTION 334100 - STORM UTILITY DRAINAGE PIPING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Storm Drainage Pipe and fittings.
2. Underdrain Piping.
3. Reinforced Concrete Pipe for storm drains at limited cover locations.

B. Related Sections:

1. Division 31 Section "Earth Moving" for excavation, trenching, and backfilling requirements.
2. Division 31 Section "Dewatering" for dewatering requirements.
3. Division 31 Section "Aggregates for Earthwork" for aggregates for backfill around pipe.
4. Division 33 Section 330500 "Common Work Results for Utilities".

1.2 DEFINITIONS

- A. HDPE: High density polyethylene plastic.
- B. PE: Polyethylene plastic.
- C. PVC: Polyvinyl chloride plastic
- D. SICPP: Smooth interior corrugated polyethylene pipe.
- E. RCP: Reinforced concrete pipe
- F. PCPUT: Perforated Corrugated Underdrain Tile

1.3 QUALITY ASSURANCE

- A. Perform work in accordance with the New York State Department of Transportation (NYSDOT) current version of Standard Specifications:
1. Section 603-3: Culverts and Storm Drains.
 2. Section 605-3: Underdrains.
- B. ASTM C91-89 Masonry Cement.
- C. ASTM C62-89a Building Brick.
- D. ASTM A48-83 (Reapproved 1990) - Gray Iron Castings.

1.4 SUBMITTALS

- A. Provide manufacturers data for each type of pipe specified.
- B. Manufacturer's Certificate: Certify that the HDPE pipe (SICPP) products meet or exceed AASHTO M294 requirements.
- C. Manufacturer's Certificate: Certify that the PVC pipe products meet or exceed AASHTO M278 requirements.
- D. Manufacturer's Certificate: Certify that the RCP pipe products meet or exceed AASHTO M 170 requirements for class II, III, IV, and V reinforced concrete pipe.
- E. Coordination Drawings: Show pipe sizes, locations, and elevations. Show other piping in same trench and clearances from storm drainage system piping.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not store plastic pipe, and fittings in direct sunlight.
- B. Protect pipe, pipe fittings, and seals from dirt and damage.
- C. Handle manholes according to manufacturer's written rigging instructions.

1.6 PROJECT CONDITIONS

- A. Interruption of Existing Storm Drainage Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:
 - 1. Notify Owner's Representative no fewer than two days in advance of proposed interruption of service.
 - 2. Do not proceed with interruption of service without Owner's written permission.

PART 2 - PRODUCTS

2.1 PE PIPE AND FITTINGS

- A. Corrugated PE Drainage Pipe and Fittings 4" to 6" diameter (PCPUT Underdrain): AASHTO M 252M, Type S, with smooth waterway for coupling joints.
 - 1. Soiltight Couplings: AASHTO M 252M, corrugated, matching tube and fittings.
 - 2. Perforated corrugated polyethylene underdrain tubing and fittings: AASHTO M252, inside nominal diameter as shown on the drawings (4" and 6").

2.2 Perforated PVC PIPE AND FITTINGS

- A. Smooth walled PVC plastic pipe, fittings, and couplings, 4" and 6" diameter, for use as an underdrain outlet pipe, (when outletting to daylight). PVC underdrain outlet pipe, couplings, and fittings shall conform to AASHTO M278 Class PS46.

2.3 HDPE PIPE AND FITTINGS

- A. Storm Drainage Piping (typical for storm sewer pipe, 12" diameter and up):
 - 1. HDPE (High Density Polyethylene) Corrugated Plastic Pipe: Smooth Interior Corrugated Polyethylene Pipe: Conform to ASTM D3350 (poly pipe material), and ASTM F 405; inside nominal diameter of as shown on the Drawings, bell and spigot style rubber ring sealed gasket joint.
 - a. Fittings: HDPE
 - b. Standard Joints: ASTM F477, elastomeric gaskets.
 - c. Silt tight Joints: Pipes installed in areas where silt tight joints are specified on the drawings shall be watertight according to the requirements of ASTM D3212. Gaskets shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removeable, protective wrap to ensure the gasket is free from debris. A joint lubricant per the manufacturer shall be used on the gasket during assembly. (HDPE Pipe with silt tight joints: Hancor Bue Seal or approved equal).

2.4 NONPRESSURE TRANSITION COUPLINGS

- A. Comply with ASTM C 1173, elastomeric, sleeve-type, reducing or transition coupling, for joining underground nonpressure piping. Include ends of same sizes as piping to be joined, and corrosion-resistant-metal tension band and tightening mechanism on each end.
- B. Sleeve Materials:
 - 1. For Concrete Pipes: ASTM C 443, rubber.
 - 2. For Dissimilar Pipes: ASTM D 5926, PVC or other material compatible with pipe materials being joined.

2.5 REINFORCED CONCRETE PIPE AND END SECTIONS

- A. At Locations explicitly noted on the plans. Meet Requirements of ASTM C76, plain end, and AASHTO M 170, Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe. Reinforced Concrete Pipe shall have bell and spigot type ends, with flexible water-tight elastomeric gaskets.
- B. Determine class of pipe by depth of cover over pipe at rough graded elevations as follows:
 - 1. Less than 2 feet of cover over pipe = Class V Pipe
 - 2. 2 feet to 3 feet of cover over pipe = Class IV Pipe
 - 3. 3 feet to 6 feet of cover over pipe = Class III Pipe

4. Over 6 feet of cover over pipe = Class II Pipe
- C. Reinforced Concrete End Sections shall be supplied as per the details shown on the project drawings.

2.6 GALVANIZED STEEL END SECTIONS FOR HDPE STORM PIPE

- A. Galvanized Steel End Sections shall be manufactured from material meeting the requirements of AASHTO M218. The end section units shall conform to the shape, dimensions, and thickness shown on NYSDOT Standard Sheet 603-02. (Pipe diameter is based on the outside diameter of the HDPE pipe). Galvanized Steel End Sections shall be installed at locations where HDPE storm culvert pipes outlet to daylight.

PART 3 - EXECUTION

3.1 PIPING INSTALLATION

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take into account design considerations. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.
- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements.
- C. Install pipe, fittings, and accessories in accordance with ASTM D2321. Seal joints watertight.
Lay pipe to slope gradients noted on drawings with maximum variation from indicated slope of 1/8 inch in 10 feet. The grade and alignment of each pipe shall be determined and maintained by the use of an approved laser system or approved batter boards (over the trench or parallel lines).
- D. The laser system shall be operated according to the manufacturer's recommendations and safety standards. The line and grade of the laser shall be checked at not more than 50-feet away from the starting point and then periodically throughout the course of the working day. Any variation from the line and grade shall be immediately reported to the Owner's Representative.
- E. Install aggregate at sides and over top of pipe. Install top cover to minimum compacted thickness of 12 inches, compact to 95 percent, as per ASTM D1557 (refer to Section 312000 "Earth Moving").
- F. Blocking will not be permitted under the pipe.

- G. No pipe shall be laid upon a foundation in which frost exists nor at any time when the Owner's Representative shall deem that there is danger of the formation of ice or the penetration of frost at the bottom of the excavation.
- H. Refer to Division 31 Section "Earth Moving" for backfilling and compacting requirements. Do not displace or damage pipe when compacting.

3.2 CONNECTIONS

- A. Make connections to existing underground manholes or drainage structures.
 - 1. When required, connection to existing storm sewers shall be made by connecting to the existing drainage structure without disturbing the existing storm sewer. The opening for the new pipe shall be core drilled or by a method approved by the Owner's Representative. The new pipe is to be placed at invert shown on the plans. Opening for pipe to be water tight.
 - 2. Protect existing piping, manholes, and structures to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.

3.3 IDENTIFICATION

- A. Materials and their installation are specified in Division 33 Section 330526 "Utility Identification". Arrange for installation of warning tape directly over piping and at outside edge of underground storm sewer structures.
 - 1. Install Drainage Outlet Markers (as described in Section 330526) at the end section outlets of proposed culvert pipes.

3.4 FIELD QUALITY CONTROL

- A. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.
 - 1. Submit separate reports for each system inspection.
 - 2. Defects requiring correction include the following:
 - a. Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
 - c. Damage: Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.
 - e. Exfiltration: Water leakage from or around piping. The total leakage of any section tested shall not exceed the rate of 100 gallons per mile of pipe per 24 hours per inch of nominal pipe diameter; plus leakage allowance for manholes included in the test section. Sewer sections that fail test shall be repaired prior to retesting. A period of not less than 24 hours shall be maintained between draining of line for repair and refilling of pipeline for retesting.

3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
 4. Reinspect and repeat procedure until results are satisfactory.
- B. Leaks and loss in test pressure constitute defects that must be repaired.
- C. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

3.5 CLEANING

- A. Clean interior of piping of dirt and superfluous materials.

END OF SECTION 334100

SECTION 334413 – PRECAST CONCRETE MANHOLES AND CATCH BASINS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Precast Concrete Manholes for Storm Sewer Systems and Sanitary Sewer Systems.
 - 2. Precast Concrete Catch Basins.
 - 3. Precast Concrete Headwalls for 4” dia. outlet pipes.
- B. Related Sections:
 - 1. Division 31 Section "Earth Moving" for excavation, trenching, and backfilling requirements.
 - 2. Division 31 Section “Dewatering” for dewatering requirements.

1.2 DEFINITIONS

- A. FRP: Fiberglass-reinforced plastic.
- B. HDPE: High density polyethylene plastic.
- C. PE: Polyethylene plastic.
- D. PVC: Polyvinyl chloride plastic
- E. SICPP: Smooth interior corrugated polyethylene pipe.

1.3 QUALITY ASSURANCE

- A. Perform work in accordance with the New York State Department of Transportation (NYSDOT) current version of Standard Specifications:
 - 1. Section 604: Drainage Structures.
 - 2. Section 655: Frames, Grates and Covers.
- B. NYSDOT Standard Sheets: 604-01, 604-02, 655-03, and 655-04.
- C. ASTM C91-89 Masonry Cement.
- D. ASTM A48-83 (Reapproved 1990) - Gray Iron Castings.

1.4 SUBMITTALS

- A. Shop Drawings:
 - 1. Manholes: Include plans, elevations, sections, details, frames, and covers.

2. Catch basins, stormwater inlets, and dry wells: Include plans, elevations, sections, details, frames, covers, and grates.
- B. Field quality-control reports.
- C. Manufacturers: Manufacturers of Precast Drainage Structures and Manholes shall appear on the NYSDOT Approved List of Precast Concrete Manufacturers for QA/QC Production (Group 2, Drainage Units). Acceptable manufacturers for precast reinforced concrete manholes and Drainage Structures include but are not limited to:
1. The Fort Miller Co., Inc.
 2. Lakelands Precast, Inc
 3. Binghamton Precast & Supply
 4. Kistner Concrete Products

Acceptable manufacturers for castings and manhole steps shall appear on the NYSDOT Approved List and include but are not limited to:

1. Neenah Foundry Co.
2. East Jordan Iron Works (formerly Syracuse Castings Sale Corp.)
3. Campbell Foundry Co.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not store plastic pipe, and fittings in direct sunlight.
- B. Protect pipe, pipe fittings, and seals from dirt and damage.
- C. Handle manholes according to manufacturer's written rigging instructions.
- D. Handle catch basins and stormwater inlets according to manufacturer's written rigging instructions.

1.6 PROJECT CONDITIONS

- A. Interruption of Existing Storm Drainage Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:
 1. Notify Owner's Representative no fewer than two days in advance of proposed interruption of service.
 2. Do not proceed with interruption of service without Owner's written permission.

PART 2 - PRODUCTS

2.1 MANHOLES

A. Standard Precast Concrete Manholes shall appear on the NYSDOT Approved List of Precast Concrete Manufacturers for QA/QC Production (Group 2, Drainage Units):

1. Description: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints. Concrete shall have a minimum 28 day compressive strength of 4,000 psi.
2. Diameter: 48 inches minimum interior diameter unless otherwise indicated.
3. Ballast: Increase thickness of precast concrete sections or add concrete to base section as required to prevent flotation.
4. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
5. Grade Rings: Reinforced-concrete rings, 6- to 9-inch total thickness, to match diameter of manhole frame and cover, and height as required to adjust manhole frame and cover to indicated elevation and slope.
6. At the option of the Contractor, precast reinforced concrete manhole sections may be constructed on poured-in-place concrete slab foundations with thickness and reinforcing equal to or exceeding that as designated in ASTM C478. Design drawings and calculations regarding poured-in-place manhole foundations shall be submitted to the Owner's Representative.
7. Precast concrete manhole sections shall fit together readily and unless specifically noted, the connections shall be jointed with self-contained "O" ring gaskets. The inside and outside of the joint shall be grouted with an approved non-shrink grout.
8. Top sections shall have a surface suitable to receive concrete brick masonry or precast adjusting rings.

B. Adjustment of Sanitary Sewer Manholes and Storm Water Structures (Drainage Manholes and Catch Basins) to finished grade:

1. Masonry for manholes and storm water structures shall include all manhole and catch basins or utility structures where it is required to bring the frames and covers to grade and the building in of metal castings, pipes, sleeves and other items required in the work complete as shown, specified and directed. All brick shall be precast concrete pavers, meeting the requirements of ASTM C936. Precast concrete pavers shall meet the compressive strength and absorption requirements of ASTM C936. In addition, the maximum acceptable average freeze/thaw loss of five paver samples, subjected to 25 freeze/thaw cycles in a 10% NaCl solution, is 1.0%, with no individual sample exceeding 1.5%. There shall be at least two brick courses (maximum 4 courses) provided for all concrete or precast concrete pipe manholes and vaults.
2. Mortars shall be mixed in the proportions that follow:
 - a. 1 sack of masonry cement (94 pounds)
 - b. 3 cubic feet of dry sand (240 pounds)
3. Masonry cement shall be Type S, Brixment, Huron, Alpha or equal, ASTM Des: C91, Type II.
4. Sand shall be of graded quality conforming to the requirements of ASTM Des:C144. Water shall be clean, potable water, free from injurious or deleterious materials.
5. All bricks shall be of the best quality, hard burned brick, shall be whole, sound, straight, hard, uniform in structure with true faces and shall be of standard size.

6. The bricks shall be culled and sorted when delivered upon the ground by experienced men furnished by the Contractor and all bricks condemned shall be immediately removed from the site of the work.
7. The bricks shall be laid in mortar of a kind and quality specified above. They shall be laid with a shove joint and all spaces between bricks shall be solidly and completely filled with mortar. The bricks shall be laid to a line with the bed in the line of the radii of the curves and with close joints not exceeding 1/4-inch. Bricks shall be thoroughly moistened before laying. Each brick shall be completely bedded in mortar at its bottom side and end at one operation. Joints on face work shall be struck and neatly pointed. Care shall be taken to have the interior surface smooth and regular. Competent masons shall be employed for this work.
8. No masonry shall be erected when the temperature has dropped below 45 degrees F, unless it is rising and at no time when it has dropped below 40 degrees F except by permission of the Owner's Representative. When masonry work is permitted below 40 degrees F, provisions shall be made for heating and drying the materials and the completed work shall be protected in accordance with the Structural Clay Products Technical Institute Notes, Volume I, No. 1. Masonry shall not be laid with ice or frost on its surface and no masonry shall be laid on frozen work. Any work which freezes before the mortar has set shall be removed and replaced at the Contractor's own expense.
9. Unfinished work shall be stepped back for jointing new work and no toothing shall be permitted unless specifically approved. Before new work is started, loose mortar shall be removed to expose the joint and shall be thoroughly wetted 12 hours before laying the new work.
10. The inside and outside face of the brick work of each manhole shall be neatly plastered with mortar not less than 3/8-inch thick, of the quality above-specified and trowelled smooth.
11. The Contractor shall provide all necessary forms and centers required for laying brick masonry. They shall be true to the required curves, shapes, and sizes, strong enough to withstand all operations incidental to the placing of the brick work and the face against which the work is to be laid shall be satisfactorily smooth and clean.
12. Directions as to the time of removing forms and centers shall be strictly followed and the removing shall be done with great care so as to avoid injury to the work.
13. All fresh work shall be protected from injury of all kinds and any injured work shall be made good by the Contractor in a manner satisfactory to the Owner's Representative. All new work, unless immediately covered with earth, shall be kept moist until the mortar has become hard and will not crack in the sun.

C. Manhole Frames, Grates and Covers:

1. Manhole frames and covers, grates, inlets, steps and other castings shall be in accordance with the NYSDOT Approved List of Precast Concrete Manufacturers for QA/QC Production (Group 2, Drainage Units). Where required, manhole covers shall have the word "Storm Sewer", "Sanitary Sewer" or other appropriate designation cast as shown on the Contract Drawings. Sizes and types of frames, grates, and covers are identified on the Project Plans,
2. All castings for manhole frames and covers shall each have machined bearing surfaces.

D. Precast Concrete Headwalls for 4" diameter outlet pipes:

1. Precast Headwall: The Concrete Headwall Precast Manufacturer shall appear on the NYSDOT Approved List of Precast Concrete Manufacturers for QA/QC Production. Refer to the Project Plans for dimensions of the precast headwall.

2. Rodent Screen: Use screens of #2 or #3 welded wire mesh, 16 gauge or heavier, made of Type 304 stainless steel wire or carbon steel wire, hot dipped galvanized in accordance with §719-01, Galvanized Coatings and Repair Methods. A manufacturer's certification to these requirements will serve as evidence of acceptance.

Steel Bars: Use ½ inch diameter, 2 ft long deformed or plain billet-steel bar meeting the requirements of ASTM A615 (such that it will fit the holes in the head wall). The steel bar shall be either hot dipped galvanized in accordance with ASTM A123 or epoxy coated in accordance with 709-04, Epoxy-Coated Bar Reinforcement. A manufacturer's certification to these requirements will be acceptable.

2.2 DAMPPROOFING

- A. Manholes shall have dampproofing. The dampproofing shall be Hydrocide 648 by Sonneborn Building Products; Dehydratine 4 by A.C. Horn Inc.; Meadows Trowel Mastic (Type 3) or equal.

2.3 CONCRETE

- A. Concrete for the Precast Structures shall have a minimum 28 day compressive strength of 4,000 psi, meeting the requirements of ASTM C 478.

2.4 CATCH BASINS

- A. Shall meet the requirements for the sizes shown on the project plans.

2.5 DRAINAGE STRUCTURE COVERS AND GRATES

- A. Shall be of good quality, designed for H-20 traffic loading. Manufactured by East Jordan Iron Works, as specified on the project plans, or approved equal. Catch Basin Grates that are installed in walkway areas shall be ADA approved, with heel-proof openings.

PART 3 - EXECUTION

3.1 PRECAST MANHOLE AND CATCHBASIN INSTALLATION

- A. Excavation and Backfill:
 1. Excavate for manholes and drainage structures in accordance with Division 31 Section "Earth Moving" in location and to depth shown. Provide clearance around sidewalls of structure for construction operations.
 2. If groundwater is encountered, prevent accumulation of water in excavations in accordance with Division 31 Section "Dewatering". Place drainage structures in dry trench.
 3. Where possibility exists of watertight structure becoming buoyant in flooded excavation, anchor structure to avoid flotation.

4. Backfill excavations for manholes and drainage structures in accordance with Division 31 Section "Earth Moving."

- B. Install manholes and drainage structures supported at proper grade and as shown on Drawings.
- C. Form and place manhole and drainage structures cylinder plumb and level, to correct dimensions and elevations. As Work progresses, install cast frames for fabricated grates (drainage structures) and covers (manholes).
- D. Cut and fit for pipe.
- E. Grout base of shaft sections to achieve slope to exit piping. Trowel smooth. Contour as indicated on Drawings.
- F. Lift precast components at lifting points designated by manufacturer.
- G. When lowering manholes and drainage structures into excavations and joining pipe to units, take precautions to ensure interior of pipeline and structure remains clean.
- H. Set precast structures bearing firmly and fully on crushed stone bedding (Type A1 subbase), compacted in accordance with provisions of Division 32 Section "Aggregate for Earthwork" (Section 310516) or on other support system shown on Drawings.
- I. Assemble multi-section structures by lowering each section into excavation. Lower, set level, and firmly position base section before placing additional sections.
- J. Remove foreign materials from joint surfaces and verify sealing materials are placed properly. Maintain alignment between sections by using guide devices affixed to lower section.
- K. Joint sealing materials may be installed on site or at manufacturer's plant.
- L. Verify manholes and drainage structures installed satisfy required alignment and grade.
- M. Remove knockouts or cut structure to receive piping without creating openings larger than required to receive pipe. Fill annular space with mortar.
- N. Shape inverts through manhole and drainage structures as shown on Drawings. Install sumps as shown on the drawings.
- O. Dampproofing: Outer surfaces of precast and cast-in-place manholes and structures below finished grade shall be given two coats of bituminous dampproofing at the rate of 30 to 60 sq ft per gallon as directed by the Owner's Representative and in accordance with manufacturer's instructions.

3.2 FRAME AND COVER INSTALLATION

- A. Set cover frames and covers level without tipping, to correct elevations, using mortar and masonry. Install radially laid concrete brick with 1/4 inch thick vertical joints at inside perimeter. Lay concrete brick in full bed of mortar and completely fill joints. Where more than one course of concrete brick is required, stagger vertical joints.

- B. All structures shall be constructed as shown on the applicable detail sheets of the Contract Drawings, including formed bench walls and troughs, steps where specified, base, walls and top sections either concentric cone, eccentric cone or flat slab, adjusting rings of brick or precast sections and frames and covers and/or inlet grates as specified.
- C. The Contractor shall, at his own cost and expense, reset any and all manhole frames and covers and/or inlet grates as required to meet the finish grade of pavements replaced by the Contractor as specified herein.
- D. Frames and covers shall be thoroughly cleaned. Where the shop coating has become damaged it shall be spot coated with Bitumastic. The frame shall be set in a full bed of mortar. If masonry courses are required to bring the frame to grade, the top course shall have a flat, level surface to receive the frame.
- E. Invert channels where required shall be as shown on the Contract Drawings smooth with semi-circular bottom conforming to the inside of the adjacent sewer section. Changes in direction of flow shall be made with a smooth curve of as large a radius as the size of the manhole will permit. The invert channels may be formed directly in the concrete of the manhole base or be built up with brick and mortar to be a part of the precast base. The floor of the manhole outside the channels shall be smooth and shall slope toward the channels as shown on the Contract Drawings. Channel bottoms shall be sloped as necessary to prevent any free drop inside the manhole, except when drop manholes are used.
- F. Set cover frames and covers level without tipping, to correct elevations.

3.3 FIELD QUALITY CONTROL

- A. Inspect interior of structure to determine any damage that needs to be repaired and for leakage. Inspect after approximately backfill is in place, and again at completion of Project. Reinspect and repeat procedure until results are satisfactory.

3.4 LEAKAGE TESTS

- A. Leakage tests shall be made and observed by the Owner's Representative on each manhole or structure. The test shall be the exfiltration test made as described in this Specification.
- B. No adjustment in the leakage allowance will be made for unknown causes such as leaking plugs, absorptions, etc, i.e. it will be assumed that all loss of water during the test is a result of leaks through the joints or through the concrete. Furthermore, take any steps necessary to assure the Owner's Representative that the water table is below the bottom of the manhole throughout the test.
- C. If the groundwater table is above the highest joint in the manhole, and if there is no leakage into the manhole as determined by the Owner's Representative, such a test can be used to evaluate the water-tightness of the manhole. However, if the Owner's Representative is not satisfied, lower the water table and carry out the test as described herein.
- D. Leakage Tests for Structures: The Owner's Representative will visually inspect structure(s) for possible leaks before backfilling of structures is allowed. All joints shall be sealed to the

satisfaction of the Owner's Representative. The Owner's Representative may require an exfiltration test as described for manholes on any structure for which he/she deems the test appropriate.

- E. The equivalent leakage allowance shall be 4.5 gallons per manhole per 24 hours for 48-inch diameter manholes, and shall be 5.7 gallons per manhole per 24 hours for 60-inch and above diameter manholes.

3.5 CLEANING

- A. All new manholes shall be thoroughly cleaned of all silt, debris and foreign matter of any kind, prior to final inspection.

3.6 FIELD QUALITY CONTROL

Inspect interior of structure to determine any damage that needs to be repaired and for leakage. Inspect after approximately backfill is in place, and again at completion of Project. Reinspect and repeat procedure until results are satisfactory.

END OF SECTION 334413

SECTION 334438 – ADJUSTING ELEVATIONS OF MANHOLES AND DRAINAGE STRUCTURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Raising or lowering manhole frames and covers.
 - 2. Resetting manhole frames and covers.
- B. Related Sections:
 - 1. Division 03 Section “Cast-In-Place Concrete.”
 - 2. Division 33 Section “Storm Utility Drainage Piping.”
 - 3. Division 33 Section “Sanitary Utility Sewer Piping”

1.2 SUBMITTALS

- A. Product Data: Submit manhole riser rings construction, features, configuration, type of concrete mix, and brick to be used (if applicable).

1.3 QUALITY ASSURANCE

- A. Perform Work in accordance with the New York State Department of Transportation (NYSDOT) current version of Standard Specifications:
 - 1. Section 604: Drainage Structures.
 - 2. Section 604-3.08: Altering Drainage Structures, Leaching Basins, and Manholes.
- B. Preinstallation Conference: Conduct conference at Project Site.

1.4 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this section with a minimum of three years' experience.

1.5 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.
- B. Prior to adjustment, Contractor to verify proposed Rim Elevation of structure.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Brick: ASTM C32, Grade MS solid.
- B. Accessories:
 - 1. Joint Sealant: ASTM C990.
 - 2. Bolts: Stainless steel ASTM F593; galvanized ASTM F1554.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify and locate manholes requiring grade adjustment.

3.2 EXISTING WORK

- A. Saw cut existing paving (if necessary).
- B. Excavate.
- C. Clean manholes.
- D. Remove existing manhole frames and covers.
- E. Repair waterproofing.

3.3 RAISING MANHOLE FRAMES AND COVERS

- A. Perform Work in accordance with NYSDOT current version of Standard Specifications, Section 604-3.08 - Altering Drainage Structures, Leaching Basins, and Manholes
- B. Locate and raise manholes to grade as indicated on Drawings.
- C. Use flat or tapered rubber manhole rings to achieve elevation indicated for frame and cover. Precast rings are preferred instead of brick to adjust / raise rim elevations. If brick is utilized, use no more than 4 courses.
- D. Seal joints between manhole top, rubber rings, and frame with sealant. Purge masonry inside and out.
- E. Reinstall removed manhole frame and cover (unless a new frame and cover is specified on the Project Plans).

3.4 PAVING RESTORATION

- A. Restore bituminous paving areas in accordance with Division 32 Section 321200 “Flexible Paving.”

3.5 LANDSCAPING RESTORATION

- A. Restore grassed areas in accordance with Division 32 Section 329200 “Turf and Grasses.”

END OF SECTION 334438

SECTION 340133 - MAINTENANCE AND PROTECTION OF TRAFFIC

PART 1 GENERAL

1.1 SUMMARY

- A. Maintenance and Protection of Traffic shall consist of all work necessary to provide for the safe and efficient movement of traffic through or around work zones, and to protect workers, area vehicle operators, property, and pedestrians from damage to person and property which may result, directly or indirectly, from any construction operations. Maintenance and Protection of Traffic shall be completed under the direction of a trained, competent person, as shown in the contract documents, and this Specification.
- B. Maintenance and Protection of Traffic is required at all work zones where vehicle operators and pedestrians are within 75 ft of the work area. This includes but is not limited to construction areas within the BRDDSO Campus, as well as any work within the pedestrian paths to BRDDSO Campus Buildings.
- C. The duration of this work shall be from the date any work is started on the contract site, including mobilization of equipment, signs, and offices, until the date of contract final acceptance. Temporary materials and components that are furnished by the Contractor shall remain the property of the Contractor. This includes any temporary fence, signs, road cones, construction barricades, barrels, lights, and Heavy Duty Equipment Ground Mats.

1.2 REFERENCES

- A. BRDDSO Campus: Permit and Requirements for working in the Campus and Parking Lot areas (parking permits).
- B. New York State Department of Transportation (NYSDOT):
 - 1. Standard Specifications, current version – Section 619 (Work Zone Traffic Control).
 - 2. Standard Sheets, 619-10, 619-11, 619-20, and 619-60.
- C. The 2009 Federal Manual of Uniform Traffic Control Devices (NMUTCD) and the New York State Supplement.

1.3 SUBMITTALS

- A. Shop Drawings: Indicate layout, of Work Zone Setups along roadways, security entrances, and parking lot intersections. Show coordination with Campus traffic and construction traffic for the Project construction areas.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with NYSDOT Standard Specifications, Section 619.

- B. Use traffic control delineation devices meet the material requirements of NYSDOT Section 619.
- C. The Contractor shall designate a work zone traffic control competent person who has the primary responsibility and sufficient authority for implementing the work zone traffic control plan and other safety and mobility aspects as necessary. The Contractor's work zone traffic control competent person shall be appropriately experienced and adequately trained in traffic control operations by recognized training programs, including the American Traffic Safety Services Association (ATSSA), the National Safety Council, unions, or construction industry associations, or by an individual instructor from such a program in accordance with the level of decisions that the individual will be required to make, reflecting current industry practices.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Furnish materials in accordance with NYSDOT, Section 619 of the NYSDOT Standard Specifications. This includes construction barricades (Type II and Type III), temporary concrete barrier, road cones, warning lights, and construction barrels (drums).
- B. If any equipment or staging work is planned that is outside the work limits, the Contractor shall provide Heavy Duty Equipment Ground Mats as needed. The Heavy Duty Ground Mats shall be composed of high-density polyethylene (HDPE) mats that lock together, with minimum sizes of 4' x 8' x ½" thick. The mats shall be capable of providing a stable and uniform surface to displace loads from construction equipment and protect the surface below. The HDPE Heavy Duty Ground Mats shall have a minimum load capacity of 240,000 pounds.
 - 1. Acceptable Manufacturers of the Heavy Duty Ground Mats include:
 - a. Bridgewell HDPE Mats (<http://www.bridgewellresources.com>)
 - b. Grainger Ground Protection Mats, Item # 48JP50 (<https://www.grainger.com>)
 - c. DuraDeck 1, - DD-1 Heavy Duty Matting & Temporary Roadways (<http://www.duradeckmats.com>)
- C. Temporary Fence and Temporary Gates:
 - 1. Fabric: The fabric shall be woven with a 9 gauge aluminum-coated steel wire in a 2-inch mesh and shall meet the requirements of ASTM A491.
 - 2. Posts, Rails, and Braces: Posts, rails and braces furnished for use in conjunction with aluminum-coated steel fabric shall be of acrylic-coated steel pipe. Posts, rails, and braces shall be continuous without splices.
 - a. Line posts, rails and braces shall be acrylic-coated steel pipe conforming to the requirements of Federal Specification RR-F-191/3, for Class I Steel Pipe, Grade B.

- b. Federal Specification RR-F-191/3 specifies a zinc coating weight of not less than 1.0 ounces per square foot for Grade B pipe with an external chromate coating of 30 micrograms per square inch and an acrylic coating of 0.0005 inches or greater.
- c. The dimensions of the posts, rails and braces shall be in accordance with Tables I through VI of Federal Specification RR-F-191/3.

3. GATES

Acrylic-coated steel gates. Gate frames shall consist of acrylic-coated steel pipe. At the Contractor's option, the Gate frames can be Galvanized coated steel. The fabric shall be of the same type material as used in the fence.

PART 3 EXECUTION

3.1 BASIC WORK ZONE TRAFFIC CONTROL

- A. Work shall consist of controlling vehicle, bicycle, and pedestrian traffic over a reasonably smooth traveled way which shall be marked by signs, delineators, channelizing devices, pavement markings, and other devices as shown in the contract documents or as directed by the Owners Representative. Work after sunset and before sunrise shall include additional requirements for nighttime operations including, but not limited to, a written plan for nighttime operations, additional worker and equipment protection, additional channelizing devices and contract site patrol. The Contractor shall conduct its operations to ensure the safety and convenience of travelers as well as the safety of all workers on the contract.
- B. Travelers include, but may not be limited to motorists (cars, heavy trucks, tractor trailers), and pedestrians. Work shall be scheduled to keep the time and distance that existing pavement is removed or substantially disturbed to a minimum and consistent with the physical requirements of the contract. Unless otherwise indicated in the contract documents, the distance over which traffic is maintained on an unpaved surface shall not exceed 1/2 mile at any one time. During seasonal shutdown periods, no part of the roadway shall be closed to traffic unless provided for in the contract documents.
- C. Basic work zone traffic control shall include the following:
 - 1. Coordination with the Owner's Representative and Campus Safety to communicate the location of work areas.
 - 2. Maintain access for emergency vehicles to the campus building that are adjacent to the work area.
 - 3. Coordinate with the Campus if any owner deliveries to the site will necessitate large truck access at the road work area.
 - 4. Maintaining the surface condition of the traveled way so that it is free of debris and dust, maintaining positive drainage.
 - 5. Maintaining the traveled way to facilitate safe, efficient travel and permit snow and ice control by others during winter months and during any period that work is suspended.
 - 6. Maintain existing road signs, markers, and temporary construction fencing.
 - 7. Installing, moving, and maintaining construction signs.
 - 8. Providing Flaggers as needed when necessary to provide adequate traffic control.

9. Providing and installing pavement patching materials as needed to keep the pavement maintained for traffic.
10. Installing road plates as necessary when excavations next to traffic need to be left open at the end of a workday.

3.2 MAINTAINING TRAVELED WAY

- A. The Contractor shall generally maintain a traveled way suitable for moving traffic, in accordance with the contract documents and ensure construction equipment, vehicles, and materials are safely stored during non-working hours so as not to constitute a hazard to vehicles and pedestrians. Construction operations shall be conducted to ensure a minimum of delay to traffic. Stopping traffic for more than 5 minutes shall not be permitted unless specifically authorized in the contract documents or in writing by the Owner's Representative. All operations shall be carried out in a manner that provides workers with safe access to the worksite and protects workers from moving traffic. The work zone traffic control competent person shall routinely inspect all work zone traffic control equipment and devices.

3.3 PAVEMENT EDGE DROP-OFF PROTECTION

- A. A drop-off is an abrupt difference in surface elevation of more than 2 inches at approximately 1V:3H or steeper.
- B. The Contractor shall provide pavement edge drop-off protection in accordance with Drums (Barrels) spaced at 40 ft, or other approved channelizing devices. Channelizing devices used to mark drop-offs shall be placed, as practicable, to not reduce the available travel lane width, at the elevation of the open travel lane in order to provide maximum target value and visibility for motorists. A drop-off of greater than 24 inches within 10 feet from the edge of the traveled way that is 100 feet or less in length will be allowed with channelizing devices consisting of drums, extra tall cones or oversized vertical panels only at a maximum spacing of 20 feet for short durations not to exceed one work shift. Unless otherwise noted in the contract documents, the Contractor shall begin work to eliminate unprotected drop-offs created by contract work within 7 calendar days of the completion of the work creating the drop-off. Work shall continue in a timely manner until such time as the unprotected drop-off condition is eliminated.

3.4 WORK ZONE ACCOMODATIONS FOR PEDESTRIANS (refer to Work Phasing Plans)

- A. Pedestrians shall not be led into direct conflicts with work site vehicles, equipment, or operations.
- B. Pedestrians are not be led into direct conflicts with mainline traffic moving around the work site. In instances where there is a potential for this to occur in isolated areas, the Contractor shall provide a Flagger / Machine Spotter to ensure pedestrian safety.
- C. Pedestrians shall be provided with an accessible path that is clearly delineated for both pedestrians and nearby traffic.

- D. The Contractor shall recognize that other Project will be on-going at the Campus during the Project. The Contractor is to coordinate with other Projects via the Owner's Representative to ensure that access for pedestrians is continuous between Projects.

3.5 PLACEMENT OF TYPE III CONSTRUCTION BARRICADES

- A. Type III construction barricades shall be installed at all locations where a segment of the roadway or sidewalk is closed to traffic. Type III construction barricades shall be maintained upright, in proper alignment and orientation. If ballast is used to maintain alignment and position of the barricade, it shall consist of dry sand contained in a closed waterproof bag, and shall be placed at ground level. Barricade rails shall be oriented such that the stripes slope downward toward the side on which traffic is to pass. If traffic may pass to either side, adjacent barricades shall be arranged such that the stripes slope downward toward each side starting at the center. Where no passage is intended or permitted, the stripes shall slope downward toward the center of the barricade or barricades.
- B. At night, each Type III construction barricade used to close a roadway, a segment of a roadway or a sidewalk shall be equipped with one flashing warning light.

3.6 PLACEMENT OF HEAVY DUTY EQUIPMENT GROUND MATS

- A. Heavy Duty Ground Mats are required if the Contractor elects to stage materials and / or equipment outside of the work limit lines that are shown on the project plans.
- B. Prior to installing Ground Mats, the Contractor shall provide pre-condition photos of the site area to the Owner's Representative. Ground Mats shall be maintained in operational condition while in use, such that they can protect the surface below, and accommodate pedestrian traffic as needed. Prior to removing Ground Mats, the Contractor is to confirm with Owner's Representative. Immediately upon removal of mats, the underlying surface will be reviewed with the Owner's Representative to determine if any surface repair is necessary.

3.6 PLACEMENT OF TEMPORARY FENCE

- A. Temporary fence posts shall be installed directly in the ground as shown on the details in the Plans. Contractor has an option to install temporary fence into temporary concrete barrier, as approved by the Engineer. Care shall be maintained by the Contractor to not disturb existing utilities. As shown in the Temporary Fence Details, short duration Temporary Fence may utilize a stockade base with 6' high sections, as approved by the Engineer. The wire fabric shall be firmly attached to the posts and braced in the manner shown on the Plans. All wire shall be stretched taut and shall be installed to the required elevations. The fence shall generally follow the contour of the ground, with the bottom of the fence fabric no less than 1 inch or more than 4 inches from the ground surface. Grading shall be performed where necessary to provide a neat appearance.
- B. It is the Contractor's responsibility mow grass that is within the limits of the temporary fence. Grass height shall not exceed four inches.
- C. It is the Contractor's remove snow that is within the limits of the temporary fence. Refer to the Work Phasing Plans for more information. Snow removal within the temporary fenced areas will be as needed by the Contractor, or as directed by the Owner's Representative. Contractor to coordinate with the Campus for snow removal outside the temporary fence, such that the Contractor provides a surface that can be maintained by Campus Maintenance forces during winter months.

3.7 COORDINATION WITH BRDDSO CAMPUS

- A. Contractor shall coordinate with the Owner's Field Representative and the Campus a minimum of 5 business days prior to performing work within the Campus roadways. In addition to the previously noted Work Zone Protection Requirements that are noted in this Specification, the Contractor shall also make arrangements such that access to adjacent walkways and buildings is maintained during the Project.

END OF SECTION 340133

SECTION 344113 - TRAFFIC SIGNS

PART 1 GENERAL

1.1 SUBMITTALS

- A. Shop Drawings: Show shop drawings, not necessarily to scale, but sufficient enough in detail to show color, wording, lettering size and style, overall sign size, construction details and installation details for each type of sign.

PART 2 PRODUCTS

2.1 TRAFFIC SIGNS

- A. Construction Materials: Comply with the applicable requirements of the New York State Department of Transportation (NYS DOT) Standard Specifications (current version), Section 645.
- B. Posts: Galvanized steel. Provide NYSDOT Type "A" sign posts, as per NYSDOT 645 (nominal 2"x2" galvanized steel). Provide break-away device at bottom of sign. All sign in pavement / open parking areas are to have the sign post embedded into a 6" bollard assembly.
- C. Provide signs that meet the National Manual of Uniform Traffic Control Devices (NMUTCD) requirements, per the NMUTCD designations that are provided on the Project Drawings.
- D. Permanent signs to be installed are shown on the Project Plans, with a correlating size and NMUTCD number.
- E. Temporary Signs that are used to provide wayfinding during the various phases of construction are to utilize 8" letters on a reflective background. Plywood substrate may be used with reflective sheeting for the temporary signs. If any temporary signs become damaged, severely worn, or dilapidated, they shall be replaced by the Contractor.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Erect signs in their designated locations, as indicated and in accordance with the approved shop drawings and the applicable requirements of NYS DOT Section 645-3, and NYS DOT 645 Series Standard Sheets.
- B. Protect surfaces and finishes from abrasion and other damage during handling and installation.
- C. Replace damaged or faulty signs.

END OF SECTION 344113