NOTICE TO BIDDERS -NEW BID SUBMISSION PROCEDURES DUE TO COVID-19

The bid submission and opening procedures for this contract will follow the procedures set forth below.

THE BIDDER MUST CAREFULLY READ THE DATES AND TIMES IN THE PROCUREMENT DOCUMENTS, AS THEY NOW DIFFER FROM PREVIOUS DDC PROJECTS.

Bid Submission Procedures

- 1. The representative delivering the bid must maintain required social distancing measures keep at least 6 feet away from others, and a mask or face covering must be worn.
- 2. The representative delivering the bid must comply with the Covid daily health screening required to enter the DDC office building at 3030 Thomson Ave. The time required to complete this screening must be accounted for in order to submit the bid on time.

As such, please allow sufficient time for these procedures when arriving to deliver the bid so that the bid may be submitted on time.

The screening requirements are as follows:

Any guest visiting DDC will be required to follow the same health and safety measures as DDC staff, which includes wearing a mask and completing the daily Health Screening.

Upon your arrival to 3030 Thomson Ave, please complete the health screen at the kiosk located by the left hand side of the security desk upon your entry. You will need to provide your name, email address and answer a few questions. Once you complete the health screening, you will need to receive a Green Readiness Score to enter our offices. Should you receive a Red Readiness Score, you will not be allowed to enter our offices. These steps are in place to ensure all precautionary safety measures are followed while in the office, as the health and safety of staff and visitors is our number one priority.

The screeners will direct you towards the DDC ACCO CSB staff on the opposite side of the security desk, who will receive your bid package. When exiting the lobby, you will exit on the other side of the security desk (in a circular flow).

If there are issues dropping off the bid, the bidder should email <u>CSB_ProjectInquiries@ddc.nyc.gov</u> for additional instructions.

3. All bids must be delivered by hand within the time shown in the procurement documents. No bids will be accepted by mail or parcel service (USPS, FedEx, UPS, DHL, etc.).

- 4. Bid submissions must be in a single, sealed envelope and clearly labeled on the outside with the following:
 - a. Project ID
 - b. Project Name
 - c. e-PIN no.
 - d. Name of Contractor
 - e. Contact person
 - f. Email address
 - g. Phone number
- 5. Bid submissions must not contain any staples or paper clips.
- 6. The ACCO staff will provide a time stamp sticker to be applied to the bid envelope. The person dropping off the bid will be provided an opportunity to take a picture of the time stamped bid package as proof of drop off.
- 7. Please use the link indicated in the procurement documents to join the virtual bid opening.

NO FURTHER TEXT ON THIS PAGE



Construction

CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION DIVISION OF INFRASTRUCTURE VOLUME 1 – BID BOOKLET

TABLE OF CONTENTS

ntroduction
id Submission Requirements
lotices to Bidders
Pre Bid Questions (PBQs)
NYC Contract Financing Loan Fund
1/WBE Notice to Prospective Contractors
ffirmation13
id Schedule15
re-Award Process
roject References
A. Contracts completed by the bidder
B. Contracts currently under construction by the bidder
C. Pending contracts not yet started by the bidder21

Introduction

This Bid Booklet is intended to provide general information necessary for bidding on a DDC public works project and is part of the Contract Documents, as per Article 1.1 of the Standard Construction Contract.

As this contract is solicited via the PASSPort system, the bidder will be required to complete all of the PASSPort forms and questionnaires. These forms and questionnaires, along with the bidder's responses, will become part of the Bid Booklet.

Additional information on the PASSPort system can be found at the following website: <u>https://www1.nyc.gov/site/mocs/systems/passport-user-materials.page</u>

Bid Submission Requirements

THE FOLLOWING MUST BE COMPLETED AND SUBMITTED FOR THE BID TO BE CONSIDERED RESPONSIVE:

- 1. Completed electronic bid submission in PASSPort;
 - a. All required fields in PASSPort must be completed.
- 2. One-page signed Bid Submission Form delivered in person to DDC before the bid due date; and
- 3. Bid security, if required.
 - a. If Bid security is in a form of a bid bond, bidders must include it with their electronic PASSPort submission.
 - b. If Bid security is in a form of a certified check, bidders must deliver the certified check with the signed Bid Submission Form.

BIDDERS ARE ADVISED THAT PAPER BID SUBMISSIONS WILL BE DEEMED NON-RESPONSIVE. BIDDERS MUST SUBMIT THEIR BIDS ELECTRONICALLY IN PASSPORT, PROVIDE THE BID SECURITY, AND DELIVER TO DDC THE ONE-PAGE SIGNED BID SUBMISSION FOR THE BID TO BE CONSIDERED RESPONSIVE.

THE FOLLOWING <u>MAY</u> RESULT IN THE BID BEING FOUND NON-RESPONSIVE:

- 1. Any discrepancy between the total bid price listed on the Bid Submission Form and the bid information submitted in PASSPort.
- 2. Failure to upload required files or documents as part of a mandatory PASSPort Questionnaire response.
- 3. Uploading an incorrect file as part of a mandatory PASSPort Questionnaire response.

Notices to Bidders

Pre Bid Questions (PBQs)

Please be advised that PBQs should be submitted to the Agency Contact Person (<u>CSB_projectinquiries@ddc.nyc.gov</u>) at least five (5) business days (by 5:00 PM EST) prior to the bid opening date as indicated in the PASSPort procurement.

All PBQs must reference the Project ID. If a bidder has multiple PBQs for the same Project ID, the PBQs must be numbered sequentially, even if they are submitted separately.

While the PASSPort system has a facility for submitting inquiries, bidders are directed to send PBQs as directed above instead of using the PASSPort inquiry system.

Inquiries sent using the PASSPort inquiry system will not be considered PBQs.

NYC Contract Financing Loan Fund

If your business is working as a prime or subcontractor on a project with a City agency or City-funded entity, you may be eligible for a Contract Financing Loan from a participating lender coordinated with the NYC Department of Small Business Services (SBS). Loan repayment terms align with the contract payment schedule.

For more information: Call 311 or visit <u>https://www1.nyc.gov/nycbusiness/article/contract-financing-loan-fund</u>

M/WBE Notice to Prospective Contractors

PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT (9/2020 version)

ARTICLE I. M/WBE PROGRAM

Section 6-129 of the Administrative Code of the City of New York ("Section 6-129") establishes the program for participation in City procurement ("M/WBE Program") by minority-owned business enterprises ("MBEs") and women-owned business enterprises ("WBEs"), certified in accordance with Section 1304 of the New York City Charter. As stated in Section 6-129, the intent of the program is to address the impact of discrimination on the City's procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are pursuant to Section 6-129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

If this Contract is subject to the M/WBE Program established by Section 6-129, the specific requirements of MBE and/or WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the "M/WBE Utilization Plan") and are detailed below. Contracts solicited through the Procurement and Sourcing Solutions Portal (PASSPort) will contain a Schedule B in the format outlined in the Schedule B – M/WBE Utilization Plan & PASSPort rider. The provisions of this notice will apply to contracts subject to the M/WBE Program established by Section 6-129 regardless of solicitation source.

The Contractor must comply with all applicable MBE and WBE requirements for this Contract.

All provisions of Section 6-129 are hereby incorporated in the Contract by reference and all terms used herein that are not defined herein shall have the meanings given such terms in Section 6-129.

References to MBEs or WBEs shall also include such businesses certified pursuant to the executive law where credit is required by section 311 of the New York City Charter or other provision of law.

Article I, Part A, below, sets forth provisions related to the participation goals for construction, standard and professional services contracts.

Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE Program.

PART A

PARTICIPATION GOALS FOR CONSTRUCTION, STANDARD

AND PROFESSIONAL SERVICES CONTRACTS OR TASK ORDERS

1. The **MBE and/or WBE Participation Goals** established for this Contract or Task Orders issued pursuant to this Contract, ("**Participation Goals**"), as applicable, are set forth on Schedule B, Part 1 to this Contract (see Page 1, Line 1 Total Participation Goals) or will be set forth on Schedule B, Part 1 to Task Orders issued pursuant to this Contract, as applicable.

The **Participation Goals** represent a percentage of the total dollar value of the Contract or Task Order, as applicable, that may be achieved by awarding subcontracts to firms certified with DSBS as MBEs and/or WBEs, and/or by crediting the participation of prime contractors and/or qualified joint ventures as provided in Section 3 below, unless the goals have been waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

2. If **Participation Goals** have been established for this Contract or Task Orders issued pursuant to this Contract, Contractor agrees or shall agree as a material term of the Contract that Contractor shall be subject to the **Participation Goals**, unless the goals are waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

3. If **Participation Goals** have been established for this Contract or Task Order issued pursuant to this Contract, a Contractor that is an MBE and/or WBE shall be permitted to count its own participation toward fulfillment of the relevant **Participation Goal**, provided that in accordance with Section 6-129 the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct subcontractors (as defined in Section 6-129(c)(13)), and provided further that a Contractor that is certified as both an MBE and a WBE may count its own participation either toward the goal for MBEs or the goal for WBEs, but not both.

A Contractor that is a qualified joint venture (as defined in Section 6-129(c)(30)) shall be permitted to count a percentage of its own participation toward fulfillment of the relevant **Participation Goal**. In accordance with Section 6-129, the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that Contractor pays to direct subcontractors, and then multiplying the remainder by the percentage to be applied to total profit to determine the amount to which an MBE or WBE is entitled pursuant to the joint venture agreement, provided that where a participant in a joint venture is certified as both an MBE and a WBE, such amount shall be counted either toward the goal for MBEs or the goal for WBEs, but not both.

4. A. If **Participation Goals** have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Utilization Plan, Part 2 (see Pages1-2) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end; as well as the name, addresses, and telephone numbers of the M/WBE subcontractors if required by the solicitation; and (d) the prospective contractor's required certification and affirmations. In the event that this M/WBE Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals**, the bid or proposal, as applicable, a pre-award waiver of the **Participation Goals** in accordance with Section 6-129 and Part A, Section 10 below.

B. (i) If this Contract is for a master services agreement or other requirements type contract that will result in the issuance of Task Orders that will be individually registered ("Master Services Agreement") and is subject to M/WBE **Participation Goals**, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Participation Requirements for Master Services Agreements That Will Require Individually Registered Task Orders, Part 2 (page 2) indicating the prospective contractor's certification and required affirmations to make all reasonable good faith efforts to meet participation goals established on each individual Task Order issued pursuant to this Contract, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified **Participation Goals** by soliciting and obtaining the participation of certified MBE and/or WBE firms. In the event that the Schedule B indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals** that may be established on Task Orders issued pursuant to this Contract, the bid or proposal, as applicable, shall be deemed non-responsive. (ii) **Participation Goals** on a Master Services Agreement will be established for individual Task Orders issued after the Master Services Agreement is awarded. If **Participation Goals** have been established on a Task Order, a contractor shall be required to submit a Schedule B – M/WBE Utilization Plan For Independently Registered Task Orders That Are Issued Pursuant to Master Services Agreements, Part 2 (see Pages 1-2) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end; as well as the name, addresses, and telephone numbers of the M/WBE subcontractors if required by the solicitation; and (d) the prospective contractor's required certification and affirmations. The contractor must engage in good faith efforts to meet the **Participation Goals** as established for the Task Order unless Agency has granted the contractor a pre-award waiver of the **Participation Goals** in accordance with Section 6-129 and Part A, Section 10 below.

C. THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART 2). A SCHEDULE B SUBMITTED BY THE BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED (SCHEDULE B, PART 3). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO SO WILL RESULT IN A DETERMINATION THAT THE BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

5. Where an **M/WBE** Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multi-year contracts, such list shall also be submitted every year thereafter. The Agency may also require the Contractor to report periodically about the contracts awarded by its direct subcontractors to indirect subcontractors (as defined in Section 6-129(c)(22)). PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor must identify all those to which it intends to award construction subcontracts for any portion of the Wicks trade work at the time of bid submission, regardless of what point in the life of the contract such subcontracts will occur. In identifying intended subcontractors in the bid submission, bidders may satisfy any Participation Goals established for this Contract by proposing one or more subcontractors that are MBEs and/or WBEs for any portion of the Wicks trade work. In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the **Participation Goals**. Such certification must occur prior to the firms' commencement of work. A list of city-certified MBE and WBE firms may be obtained from the DSBS

website at www.nyc.gov/buycertified, by emailing DSBS at buyer@sbs.nyc.gov, by calling (212) 513-6451, or by visiting or writing DSBS at One Liberty Plaza, New York, New York, 10006, 11th floor. Eligible firms that have not yet been certified may contact DSBS in order to seek certification by visiting www.nyc.gov/getcertified, emailing MWBE@sbs.nyc.gov, or calling the DSBS certification helpline at (212) 513-6311. A firm that is certified as both an MBE and a WBE may be counted either toward the goal for MBEs or the goal for WBEs, but not both. No credit shall be given for participation by a graduate MBE or graduate WBE, as defined in Section 6-129(c)(20).

7. Where an **M/WBE** Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to,: the total amount the Contractor paid to its direct subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount direct subcontractors paid to indirect subcontractor; the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor by the Contractor, and, where applicable, hired by any of the Contractor's direct subcontractors; and the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment: the total amount it paid to subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount its direct subcontractors paid directly to their indirect subcontractors; and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each subcontractor that is an MBE or WBE, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's **M/WBE** Utilization Plan, Agency shall take appropriate action, in accordance with Section 6-129 and Article II below, unless the Contractor has obtained a modification of its **M/WBE** Utilization Plan in accordance with Section 6-129 and Part A, Section 11 below.

9. Where an **M/WBE** Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds the greater of 10 percent of the Contract or Task Order, as applicable, or \$500,000, Agency shall review the scope of work for the Contract or Task Order, as applicable, and the scale and types of work involved in the change order, and determine whether the **Participation Goals** should be modified.

10. Pre-award waiver of the Participation Goals.

(a) A bidder or proposer, or contractor with respect to a Task Order, may seek a pre-award full or partial waiver of the Participation Goals in accordance with Section 6-129, which requests that Agency change one or more **Participation Goals** on the grounds that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, or by demonstrating that it has legitimate business reasons for proposing a lower level of subcontracting in its M/WBE Utilization Plan.

(b) To apply for a full or partial waiver of the **Participation Goals**, a bidder, proposer, or contractor, as applicable, must complete Part 3 of Schedule B and submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing to the Agency by email at <u>MWBEModification@ddc.nyc.gov</u>. Full or partial waiver requests that are received later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due may be rejected as untimely. Bidders, proposers, or contractors, as applicable, who have submitted timely requests will receive an Agency response by no later than two (2) calendar days prior to the date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

(c) If the Agency determines that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, it shall revise the solicitation and extend the deadline for bids and proposals, or revise the Task Order, as applicable.

(d) Agency may grant a full or partial waiver of the **Participation Goals** to a bidder, proposer or contractor, as applicable, who demonstrates—before submission of the bid, proposal or Task Order, as applicable—that it has legitimate business reasons for proposing the level of

subcontracting in its **M/WBE** Utilization Plan. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder, proposer or contractor, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts represented by the **Participation Goals**. In making such determination, Agency may consider whether the **M/WBE** Utilization Plan is consistent with past subcontracting practices of the bidder, proposer or contractor, as applicable, has made efforts to form a joint venture with a certified firm, and whether the bidder, proposer, or contractor, as applicable, has made good faith efforts to identify other portions of the Contract that it intends to subcontract.

11. Modification of **M/WBE** Utilization Plan. (a) A Contractor may request a modification of its **M/WBE** Utilization Plan after award of this Contract. **PLEASE NOTE:** If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor may request a Modification of its M/WBE Utilization Plan as part of its bid submission. The Agency may grant a request for Modification of a Contractor's M/WBE Utilization Plan if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the **Participation Goals**. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

(i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;

(ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;

(iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;

(iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the **M/WBE** Utilization Plan, and for which the Contractor claims an inability to retain MBEs or WBEs;

(v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;

(vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;

(vii) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;

(viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

Agency's M/WBE officer shall provide written notice to the Contractor of the determination.

(b) The Agency may modify the **Participation Goals** when the scope of the work has been changed by the Agency in a manner that affects the scale and types of work that the Contractor indicated in its **M/WBE Utilization Plan** would be awarded to subcontractors.

12. If the Contractor was required to identify in its bid or proposal the MBEs and/or WBEs they intended to use in connection with the performance of the Contract or Task Order, substitutions to the identified firms may only be made with the approval of the Agency, which shall only be given when the Contractor has proposed to use a firm that would satisfy the **Participation Goals** to the same extent as the firm previously identified, unless the Agency determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts. In making such determination, the Agency shall require evidence of the efforts listed in Section 11(a) above, as applicable, along with any other relevant factors.

13. If this Contract is for an indefinite quantity of construction, standard or professional services or is a requirements type contract and the Contractor has submitted an **M/WBE** Utilization Plan and has committed to subcontract work to MBEs and/or WBEs in order to meet the **Participation Goals**, the Contractor will not be deemed in violation of the M/WBE Program requirements for this Contract with regard to any work which was intended to be subcontracted to an MBE and/or WBE to the extent that the Agency has determined that such work is not needed.

14. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, at least once annually during the term of the Contract or Task Order, as applicable, Agency shall review the Contractor's progress toward attainment of its **M/WBE** Utilization Plan, including but not limited to, by reviewing the percentage of work the Contractor has actually awarded to MBE and/or WBE subcontractors and the payments the Contractor made to such subcontractors.

15. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B

MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of a **M/WBE** Utilization Plan, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See §6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the **M/WBE** Utilization Plan.

2. Pursuant to DSBS rules, construction contracts that include a requirement for a **M/WBE** Utilization Plan shall not be subject to the law governing Locally Based Enterprises set forth in Section 6-108.1 of the Administrative Code of the City of New York.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and/or WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and/or WBEs in contracts.

4. Prospective contractors are encouraged to enter into qualified joint venture agreements with MBEs and/or WBEs as defined by Section 6-129(c)(30).

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE Program requirements set forth herein and the pertinent provisions of Section 6-129, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE Program requirements of this Contract and pertinent provisions of Section 6-129, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of MBEs and/or WBEs to meet the required **Participation Goals**.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

2. Whenever Agency believes that the Contractor or a subcontractor is not in compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any **M/WBE** Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering the Contractor an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to, any **M/WBE** Utilization Plan, Agency may determine that one of the following actions should be taken:

(a) entering into an agreement with the Contractor allowing the Contractor to cure the violation;

- (b) revoking the Contractor's pre-qualification to bid or make proposals for future contracts;
- (c) making a finding that the Contractor is in default of the Contract;
- (d) terminating the Contract;
- (e) declaring the Contractor to be in breach of Contract;
- (f) withholding payment or reimbursement;
- (g) determining not to renew the Contract;
- (h) assessing actual and consequential damages;

(i) assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the M/WBE Program, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;

(j) exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or

(k) taking any other appropriate remedy.

4. If an **M/WBE** Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to fulfill its **Participation Goals** contained in its **M/WBE** Utilization Plan or the **Participation Goals** as modified by Agency pursuant to Article I, Part A, Section 11, Agency may assess liquidated damages in the amount of ten percent (10%) of the difference between the dollar amount of work required to be awarded to MBE and/or WBE firms to meet the **Participation Goals** and the dollar amount the Contractor actually awarded and paid, and/or credited, to MBE and/or WBE firms. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the **Participation Goals**, the foregoing amount is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such failure, and not as a penalty. Agency may deduct and retain out of any monies which may become due under this Contract the amount of any such liquidated damages; and in case the amount which may become due under this Contract shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.

5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6-129, Agency shall notify the Commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE and/or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

7. The Contractor's record in implementing its **M/WBE** Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an **M/WBE** Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement Officer, file an advice of caution form for inclusion in PASSPort as caution data.

Affirmation

The Bidder affirms and declares:

- 1. The said bidder is of lawful age and the only one interested in this bid; and no person, firm or corporation other than hereinbefore named has any interest in this bid, or in the Contract proposed to be taken.
- 2. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief: (1) the prices in this bid 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 or with any competitor; (2) unless otherwise required by law, the prices quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and (3) no attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
- 3. No councilman or other officer or employee or person whose salary is payable in whole or in part from the City Treasury is directly or indirectly interested in this bid, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.
- 4. The bidder is not in arrears to the City of New York upon debt or contract or taxes, and is not a defaulter, as surety or otherwise, upon any obligation of the City of New York, and has not been declared not responsible, or disqualified, by any agency of the City of New York or State of New York, nor is there any proceeding pending relating to the responsibility or qualification of the bidder to receive public contracts except as set forth on the Affirmation included as disclosed in PASSPort.
- 5. The bidder hereby affirms that is has paid all applicable City income, excise and other taxes for all it has conducted business activities in New York City.
- 6. The bidder, as an individual, or as a member, partner, director or officer of the bidder, if the same be a firm, partnership or corporation, executes this document expressly warranting and representing that should this bid be accepted by the City and the Contract awarded to him, he and his subcontractors engaged in the performance:

(1) will comply with the provisions of Section 6-108 of the Administrative Code of the City of New York and the non-discrimination provisions of Section 220a of the New York State Labor Law, as more expressly and in detail set forth in the Agreement; (2) will comply with Section 6-109 of the Administrative Code of the City of New York in relation to minimum wages and other stipulations as more expressly and in detail set forth in the Agreement; (3) have complied with the provisions of the aforesaid laws since their respective effective dates, and (4) will post notices to be furnished by the City, setting forth the requirements of the aforesaid laws in prominent and conspicuous places in each and every plant, factory, building and structure where employees engaged in the performance of the Contract can readily view it, and will continue to keep such notices posted until the supplies, materials and equipment, or work labor and services required to be furnished or rendered by the Contractor have been finally accepted by the City. In the event of any breach or violation of the foregoing, the Contractor may be subject to damages, liquidated or otherwise, cancellation of the Contract and suspension as a

bidder for a period of three years. (The words, "the bidder", "he", "his", and "him" where used shall mean the individual bidder, firm, partnership or corporation executing this bid).

7. Compliance Report

The bidder, as an individual, or as a member, partner, director, or officer of the bidder, if the same be a firm, partnership, or corporation, (1) represents that his attention has been specifically drawn to Executive Order No. 50, dated April 25, 1980, on Equal Employment Compliance of the contract, and (2) warrants that he will comply with the provisions of Executive Order No. 50. The Employment Report must be submitted as part of the bid.

- 8. The bidder, as an individual, or as a member, partner, director, or officer of the bidder, if the same be a firm, partnership, or corporation, executes this document expressly warranting that he will comply with: (1) the provision of the contract on providing records, Chapter 8.
- 9. By submission of this bid, the bidder certifies that it now has and will continue to have the financial capability to fully perform the work required for this contract. Any award of this contract will be made in reliance upon such certification. Upon request therefor, the bidder will submit written verification of such financial capability in a form that is acceptable to the department.
- 10. In accordance with Section 165 of the State Finance Law, the bidder agrees that tropical hardwoods, as defined in Section 165 of the State Finance Law, shall not be utilized in the performance of this Contract, except as the same are permitted by the foregoing provision of law.
- 11. The bidder has visited and examined the site of the work and has carefully examined the Contract in the form approved by the Corporation Counsel, and will execute the Contract and perform all its items, covenants and conditions, and will provide, furnish and deliver all the work, materials, supplies, tools and appliances for all labor and materials necessary or required for the hereinafter named work, all in strict conformity with the Contract, for the prices set forth in the Bid Schedule.
- 12. M/WBE UTILIZATION PLAN: By signing its bid, the bidder agrees to the M/WBE Vendor Certification and Required Affirmations set forth below, unless a full waiver of the Participation Goals is granted.

I hereby:

- 1) acknowledge my understanding of the M/WBE participation requirements as set forth in this Contract and the pertinent provisions of Section 6-129 of the Administrative Code of the City of New York and the rules promulgated thereunder;
- 2) affirm that the information supplied in support of the M/WBE Utilization Plan is true and correct;
- 3) agree, if awarded this Contract, to comply with the M/WBE participation requirements of this Contract, the pertinent provisions of Section 6-129, and the rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract;
- 4) agree and affirm that it is a material term of this Contract that the Vendor will award the total dollar value of the M/WBE Participation Goals to certified MBEs and/or WBEs, unless a full waiver is obtained or such goals are modified by the Agency; and

agree and affirm, if awarded this Contract, to make all reasonable, good faith efforts to meet the M/WBE Participation Goals, or If a partial waiver is obtained or such goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms.

BID SUBMISSION FORM

Bidder Name:	DiFazio Industries LLC
Procurement Title:	85021B0131-MIBBNC04A CONSTRUCTION OF
	BEST MANAGEMENT PRACTICES BMP NC-06
	BOUNDARY AVENUE AND BMP NC-15
	LACONIA AVENUE
RFx Name:	MIBBNC04A CONSTRUCTION OF BEST
	MANAGEMENT PRACTICES BMP NC-06
	BOUNDARY AVENUE AND BMP NC-15
	LACONIA AVENUE

The above-named bidder affirms and declares:

- 1. The bidder has completed and submitted all required information for the above procurement in the PASSPort system;
- 2. Any discrepancy between the bid price listed on this Bid Submission Form and the bid information submitted in PASSPort may result in the agency finding the bid non-responsive; and
- 3. This bid is being submitted in accordance with New York State General Municipal Law § 103.

	s being submitted in accordance with New York State Iunicipal Law § 103.	BB,
Total Bid Price:	s 14, 342, 342.77	_3/1/22

Bidder Signature

EIN (if applicable):	73 - 170 6369
	(EIN must match the EIN of the entity that submitted bid information in PASSPort)
Bidder Name:	DiFazio Industries LLC
By:	Joseph LoBrutto
Signature:	(Nime of Partner of Corporate Officer)
	(Signature of Partner of Corporals Offfreer)

FORM OF BID BOND

KNOW ALL MEN BY THESE PRESENTS. That we, DiFazio Industries, LLC 38 Kinsey Place

Staten Island, NY 10303

hereinafter referred to as the "Principal", and Liberty Mutual Insurance Company

175 Berkeley Street

Boston, MA 02116

hereinafter referred to as the "Surety" are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "CITY", or to its successors and assigns in the penal sum of _____

Ten Percent of the Amount Bid

(\$______), Dollars lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the Principal is about to submit (or has submitted) to the City the accompanying proposal, hereby made a part hereof, to enter into a contract in writing for _____

Project ID.: MIBBNC04A, Construction of Best Management Practices BMP NC-6 Boundary Avenue and

BMP NC-15 Laconia Avenue

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall not withdraw said Proposal without the consent of the City for a period of forty-five (45) days after the opening of bids and in the event of acceptance of the Principal's Proposal by the City, if the Principal shall:

(a) Within ten (10) days after notification by the City, execute in quadruplicate and deliver to the City all the executed counterparts of the Contract in the form set forth in the Contract Documents, in accordance with the proposal as accepted, and

(b) Furnish a performance bond and separate payment bond, as may be required by the City, for the faithful performance and proper fulfillment of such Contract, which bonds shall be satisfactory in all respects to the City and shall be executed by good and sufficient sureties, and

(c) In all respects perform the agreement created by the acceptance of said Proposal as provided in the Information for Bidders, bound herewith and made a part hereof, or if the City shall reject the aforesaid Proposal, then this obligation shall be null and void; otherwise to remain in full force and effect.

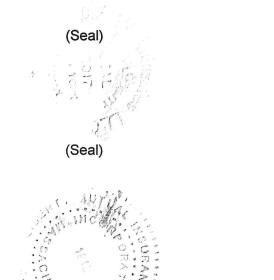
In the event that the Proposal of the Principal shall be accepted and the Contract be awarded to the Principal the Surety hereunder agrees subject only to the payment by the Principal of the premium therefore, if requested by the City, to write the aforementioned performance and payment bonds in the form set forth in the Contract Documents.

It is 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.

There shall be no liability under this bond if, in the event of the acceptance of the Principal's Proposal by the City, either a performance bond or payment bond, or both, shall not be required by the City on or before the 30th day after the date on which the City signs the Contract.

The surety, for the value received, hereby stipulates and agrees that the obligations of the Surety and its bond shall in no way be impaired or affected by any postponements of the date upon which the City will receive or open bids, or by any extensions of the time within which the City may accept the Principal's Proposal, or by any waiver by the City of any of the requirements of the Information for Bidders, and the Surety hereby waives notice of any such postponements, extensions, or waivers.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers the <u>_____</u>tay of <u>_____</u>, 2022



DiFazio Industries, LLC	(L.S.)
By:	~
Liberty Mutual Insurance Company	
Surety	
By:	
Michael Marino, Attorney-in-Fact	

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

ĩ.

State of On this	County of day ofto me to me	ss: ,, before me personally came known, who, being by me duly sworn, did
that he/she/they i DiFazio Industries	s the , LLC	
the seal of said c	orporation; that one of the seal order of the directors of said co	s affixed to said instrument is such seal; that it rporation, and that he/she/they signed his name
		Notary Public
1	ACKNOWLEDGMENT OF PRI	VCIPAL, IF A PARTNERSHIP
who executed the	County of day of he firm of e foregoing instrument, and he/ ie as and for the act and deed o	ss: ,, before me personally to me known and known to me to be one of described in and she/they acknowledged to me that he/she/they f said firm.
		Notary Public
ACKNOWLEDGM	IENT OF PRINCIPAL, IF AN IN	DIVIDUAL
State of On this appeared person described he/she/they exect		ss: ,, before me personally to me known and known to me to be the foregoing instrument and acknowledged that
		Notary Public
	Y ACKNOW/ EDGMENTS AND	

AFFIX ACKNOWLEDGMENTS AND JUSTIFICATION OF SURETIES

LIMITED LIABILITY COMPANY ACKNOWLEDGMENT

STATE OF NEW YORK

COUNTY OF RICHMOND ss:

On this 28^{Th} day of February, 2022 before me personally appeared Joseph Lobruzto to me known, who by me being duly sworn, did depose and say: that (s)he is a member or manager of the limited liability company of DiFazio Industries, LLC, and that (s)he is authorized to execute the attached surety bond in the name of and for the limited liability company above named, and that (s)he acknowledge to me that (s)he signed the attached instrument pursuant to such authority.

HAFEZ N SHRAIDEH NOTARY PUBLIC, STATE OF NEW YORK Registration No. 01SH6397364 Qualified in Richmond County My Commission Expires 09/03/20

My Straid Notary Public My commission expires: <u>09/03/2023</u>

ACKNOWLEDGMENT OF SURETY COMPANY

STATE OF NEW YORK

COUNTY OF NASSAU

On this 1st day of March, 2022, before me personally came Michael Marino to me known, who, being by me duly sworn, did depose and say; that she is the Attorney-in-Fact of the Liberty Mutual Insurance Company, the corporation described in which executed the above instrument; that she knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by the Board of Directors of said corporation; and that he signed her name thereto by the authority of the Power of Attorney of said Company, of which a Certified Copy is hereto attached, and that she signed said Instrument as an Attorney-in-Fact of said company by like authority.

ndreas Garliert

ANDREA E. GORBERT Notary Public, State of New York No. 01GO6170063 Qualified in Suffolk County **Commission Expires July 02, 20** るう



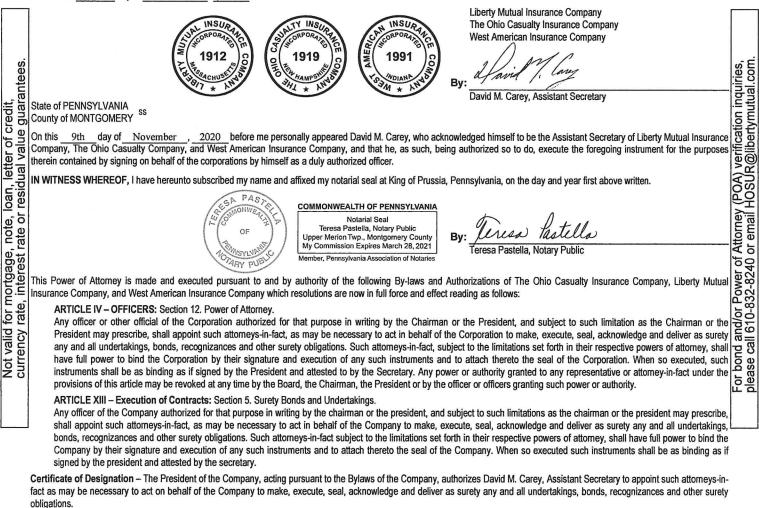
This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

> Liberty Mutual Insurance Company The Ohio Casualty Insurance Company West American Insurance Company

Certificate No: 8204466 - 985164

POWER OF ATTORNEY

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 9th day of November , 2020 .



Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 1st day of March , 2022





mit lully By:

Renee C. Llewellyn, Assistant Secretary

LMS-12873 LMIC OCIC WAIC Multi Co_8/20



LIBERTY MUTUAL INSURANCE COMPANY

FINANCIAL STATEMENT - DECEMBER 31, 2020

Assets

Liabilities

Cash and Bank Deposits\$2,058,007,542	Unearned Premiums \$8,448,706,991
*Bonds — U.S Government 2,209,760,437 *Other Bonds	Reserve for Claims and Claims Expense
*Stocks	Funds Held Under Reinsurance Treaties
Real Estate193,169,809Agents' Balances or Uncollected Premiums6,970,170,469	Reserve for Dividends to Policyholders
Accrued Interest and Rents 118,399,147	Additional Statutory Reserve 77,397,000
Other Admitted Assets 12,079,597,645	Reserve for Commissions, Taxes and
	Other Liabilities 6,279,510,804
Total Admitted Assets	Total \$39,029,092,737
<u>5</u>	Special Surplus Funds \$178,155,102
	Capital Stock 10,000,075
	Paid in Surplus 10,945,045,214
	Unassigned Surplus 7,886,674,737
	Surplus to Policyholders 19,019,875,128
	Total Liabilities and Surplus
	<u>\$58,048,967,86</u>
NI INSURA	



* Bonds are stated at amortized or investment value; Stocks at Association Market Values. The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2020, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 25th day of March, 2021.

TAMiholajewski

Assistant Secretary

SPECIAL EXPERIENCE REQUIREMENTS FOR THE BIDDER:

The Special Experience Requirements set forth below apply to the bidder. Compliance with such Special Experience Requirements will be determined solely by the City prior to an award of contract. Failure to comply with the Special Experience Requirements will result in rejection of the bid as non-responsive.

The requirements in this Section (A) apply to this contract where indicated by a blackened box (■).

■ The bidder must, within the last seven (7) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least one (1) project similar in scope and type to the required work. Such prior project may have been performed as a prime contractor, subcontractor or sub-subcontractor.

The Special Experience Requirements next to the blackened box below apply to the bidder. If the bidder intends to perform such work itself, it must demonstrate compliance with the Special Experience Requirements. If the bidder intends to subcontract this work, the proposed subcontractor or sub-subcontractor must demonstrate compliance with the Special Experience Requirements. The contractor, subcontractor or sub-subcontractor (hereinafter referred to as the "Entity") that will perform any specific area of work indicated by the blackened box below, may have performed the required prior project(s) as a prime contractor, subcontractor or sub-subcontractor, subcontractor or sub-subcontractor. Once approved, no substitution will be permitted, unless the qualifications of the proposed replacement have been approved in writing in advance by the City.

- □ **Trunk Water Main Work:** The Entity that will perform the trunk water main work must, within the last seven (7) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least one (1) project similar in scope and type to the required work.
- Best Management Practice Work: Best Management Practice ("BMP") Work is any item of work in the Bid Schedule that begins with the prefix "BMP". The Entity that will perform any BMP Work must, within the last five (5) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least three (3) projects similar in scope and type to the required work.

For professional services in connection with BMP Work (i.e., monitoring and reporting services), the individual who will perform the required services must, within the last five (5) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least three (3) projects similar in scope and type to the required work. Additional requirements are set forth below.

- The individual serving as the Restoration Specialist (Construction Monitor) must be a Registered Landscape Architect licensed by the state of New York, or must have equivalent professional experience.
- The individual serving as the Erosion and Sediment Control Licensed/Certified Professional must be a Certified Professional in Erosion and Sediment Control (CPESC), certified by CPESC, Inc.
- □ **Micro-Tunneling/Pipe Jacking Work:** The Entity that will perform the micro-tunneling/pipe jacking work must, within the last five (5) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least two (2) projects similar in scope and type to the required work.

OTHER: _____

SPECIAL EXPERIENCE REQUIREMENTS FOR ENTITIES PERFORMING SPECIFIC AREAS OF WORK:

The requirements in this Section (B) apply to this contract where indicated by a blackened box (\blacksquare) .

The Special Experience Requirements set forth below apply to the Entity that will perform the specific area of work. <u>Compliance with such Special Experience Requirements will be</u> <u>determined solely by the City after an award of contract</u>. <u>Within two (2) weeks of award of contract, the contractor will be required to submit the qualifications of the Entity that will perform the specific area of work.</u> If the bidder intends to perform such work itself, it must demonstrate compliance with the Special Experience Requirements. If the bidder intends to subcontract this work, the proposed subcontractor or sub-subcontractor must demonstrate compliance with the Special Experience Requirements. Once approved, no substitution will be permitted, unless the qualifications of the proposed replacement have been approved in writing in advance by the City.</u>

Special Experience Requirements apply to the Entity that will perform any specific area of work indicated by a blackened box. The Entity may have performed the required prior project(s) as a prime contractor, subcontractor or sub-subcontractor.

- Hazmat Work: Hazmat Work is any item of work in the Bid Schedule that begins with the prefix 8.01. The Entity that will perform any Hazmat Work must, within the last three (3) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least five (5) projects similar in scope and type to the required work.
- Pile, CFA Pile, and/or Mini-Pile Work: The Entity that will perform the Pile, CFA Pile and/or Mini-Pile Work must, within the last three (3) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least two (2) projects similar in scope and type to the required work.

For professional services in connection with Pile Work (i.e., engineering and inspection services), the individual who will perform the required services must be a Professional Engineer licensed by the state of New York. Such individual must also comply with the above requirements for prior projects.

Construction Report, Monitoring and Post-Construction Report, and Continuous Real-Time Monitoring For Vibrations and Movements and Post-Construction Report Work: The Entity that will perform the Construction Report, Monitoring For Vibrations And Movements, and Post-Construction Report Work must, within the last three (3) consecutive years prior to the bid opening, have successfully completed in a timely fashion at least two (2) projects similar in scope and type to the required work.

For professional services in connection with Reporting and Monitoring Work (i.e., engineering and inspection services), the individual who will perform the required services must be a Professional Engineer licensed by the state of New York. Such individual must also comply with the above requirements for prior projects.

OTHER: ______

QUALIFICATION FORM

List previous projects completed to meet the special experience requirements for this contract. Please photocopy this form for submission of all required projects.

Name of Contractor: DiFazio Industries LLC

Name of Project: REDA003

Location of Project: Staten Island

Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:

Name: Pheby Guirguis PE

Title: Engineer In Charge Phone Number: 646-945-1404

Brief description of the Project completed or the Project in progress: <u>Accelerated Distribution</u>

Water Main Replacement and Sewer Rehabilitation / Replacement

Was the Project performed as a prime, a subcontractor or a sub-subcontractor: Prime

Amount of Contract, Subcontract or Sub-subcontract: <u>\$29 Million</u>

Start Date and Completion Date: 04/30/2018 - 10/26/2020

Name of Contractor: DiFazio Industries LLC

Name of Project: SE803

Location of Project: Staten Island

Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:

Name: Syed Noman

Title: Engineer In Charge Phone Number: 917-642-1993

Brief description of the Project completed or the Project in progress: Installation of Water Mains

and Appurtenances for New Building Construction

Was the Project performed as a prime, a subcontractor or a sub-subcontractor: Prime

Amount of Contract, Subcontract or Sub-subcontract: <u>\$35 Million</u>

Start Date and Completion Date: <u>6/26/2017 - 12/18/2020</u>

QUALIFICATION FORM

Name of Contractor: DiFazio Industries LLC
Name of Project: <u>QED976</u>
Location of Project: Queens
Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed:
Name: Mauro DeVincenzi
Title: Engineer in Charge Phone Number: 718-391-2349
Brief description of the Project completed or the Project in progress: <u>Construction of Water Mains</u>
and Storm Sewers including Sanitary Sewer, Water Main, Street Lighting, Traffic Signal and Private Utilities Work
Was the Project performed as a prime, a subcontractor or a sub-subcontractor: Prime
Amount of Contract, Subcontract or Sub-subcontract: <u>\$48.5 Million</u>
Start Date and Completion Date:07/31/2017-07/30/2021
Name of Contractor: DiFazio Industries LLC
Name of Project: SE818
Location of Project: Staten Island
Owner or Owner's representative (Architect or Engineer) who is familiar with the work performed: Name: <u>Adam Alweiss</u>
Title: Borough Director Phone Number: 718-391-1110
Brief description of the Project completed or the Project in progress: <u>Construction of Sanitary and</u>
Storm Sewer including Water Main Work
Was the Project performed as a prime, a subcontractor or a sub-subcontractor: Prime
Amount of Contract, Subcontract or Sub-subcontract: \$47.5 Million
Start Date and Completion Date: 03/10/2014 - 06/06/2017



SCHEDULE B – M/WBE Utilization Plan

Part 1: M/WBE Participation Goals

Contract Overview (To be completed by contracting agency)

FMS Project ID#MIBBNC04A
Bid/Proposal Response Date_TBD
City_Long Island City_State_NY_ZIP_11101
Title M/WBE Outreach & Complaince Analyst
Email bellamyte@ddc.nyc.gov

Project Description (attach additional pages if necessary)

Construction of Storm Water Best Management Practices BMP NC-6 Boundary Avenue and BMP NC-15 Laconia Avenue

Bidder or proposer is required OR is not required to specifically identify the contact information of all M/WBE firms they intend to use as a subcontractor on this contract, including the M/WBE vendor name, address and telephone number in the space provided below in Part 2 Section 4.

Part 2: M/WBE Participation Plan

(To be completed by the bidder/proposer unless granted a full waiver, which must be submitted with the bid/proposal in lieu of this form)

Section 1: Prime Contractor Contact Information

Tax ID#_73 - 170 6369	_ FMS Vendor ID#_0002543527			
Business Name_DiFazio Industries LLC	Contact Person Hakim Ghanem			
Business Address 38 Kinsey PI	City Staten Island	State NY	ZIP 10308	
Telephone_718-720-6966	oind.net			

Section 3: Contractor M/WBE Utilization Plan

Please review the Notice to Prospective Contractors for more information on how to obtain credit for M/WBE participation. Check applicable box. The Proposer or Bidder will fulfill the M/WBE Participation Goals:

- As an M/WBE Prime Contractor that will self-perform and/or subcontract to other M/WBE firms a portion of the contract the value of which is at least the amount located on Lines 2 or 3 in the panels in Section 2, as applicable. The value of any work subcontracted to non-M/WBE firms will not be credited towards fulfillment of M/WBE Participation Goals. Please check all that apply to Prime Contractor: ☐ MBE ☐ WBE
- ☐ As a Qualified Joint Venture with an M/WBE partner, in which the value of the M/WBE partner's participation and/or the value of any work subcontracted to other M/WBE firms is at least the amount located on Lines 2 or 3 in the panels in Section 2, as applicable. The value of any work subcontracted to non-M/WBE firms will not be credited towards fulfillment of M/WBE Participation Goals.
- As a non-M/WBE Prime Contractor that will enter into subcontracts with M/WBE firms the value of which is at least the amount located on Lines 2 or 3 in the panels in Section 2, as applicable.

M/WBE Participation Goals for Services

Enter the percentage amount for each category or for an unspecified Goal.

Prime Contract Construction

Category and Breakdown:

Unspecified	17.00	%
Black American	3.00	%
Hispanic American	2.00	%
Asian American		%
Women		%
	Male Malanay	,.

Total Participation Goals 22.00 %

Section 2: M/WBE Utilization Goal Calculation

Prime Contractor Adopting Agency Participation Goals

For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Agency M/WBE Participation Goals.

Total Bid/Proposal Value \$ 14,342,342.77

multiplied by

Total Participation Goals 22.00 % (Line 1 above)

OR



Prime Contractor With Partial Waiver Approval Adopting Revised Participation Goals For Prime Contractors (including Qualified Joint Ventures and M/WBE firms) adopting Revised M/WBE Participation Goals.

Total Bid/Proposal Value \$_____ multiplied by x Total Revised Participation Goals_____% Calculated M/WBE Participation Amount \$_____ Line 3

Section 4: General Contract Information

What is the expected percentage of the total contract dollar value that you expect to award in subcontracts for services, regardless of M/WBE status?

23.82 %

Enter a brief description of the type(s) and dollar value of subcontracts for all services you plan to subcontract if awarded this contract, along with the anticipated start and end dates for such subcontracts. For each item, indicate whether the work is designated for participation by an M/WBE. Where the contracting agency's solicitation has indicated a requirement that the bidder or proposer specifically identify the contact information of all M/WBEs they intend to use on this contract, vendors must also include the M/WBE vendor name, address and telephone number in the space provided below. Use additional sheets if necessary.

	Start Date	End Date	Planned	Desig for M					MЛ	WBE
Description of Work	(MM/YY)	(MM/YY)	\$ Amount	Y	Ν	Vendor Name	M/WBE Address			ohone
1. Trucking	/	/	\$ 1,032,020.00			West Shore	2 Kinsey PI, Staten Island NY 10303	()	-
2. Crossing Guards	/	/	\$ <u>31,500.00</u>			All Boroughs LLC	7 Marcus Garvey Blvd, Brooklyn, NY 11206	()	-
3. Landscaping	/	/	\$_ ^{1,671,825.50}			Eastern Landscape	788 Shrewsbury Ave, Tinton Falls, NJ 07724	()	-
4	/	/	\$ <u>412,670.00</u>			Zero Below	68 South Service Rd, Melville, NY 11747	()	-
5. Timber Piles	/	/	\$_261,420.00			Falco Constrcution	2300 East 69th St, Brooklyn, NY 11234	()	-
6. Pest Control	/	/	\$ <mark>7,300.00</mark>			Urban Environmental Pest	203-67 27 Ave, Bayside NY 11360	()	-
7	/	/	\$					()	-
8	/	/	\$					()	
9	/	/	\$					()	-
10			\$					()	-

Section 5: Vendor Certification and Required Affirmations

I hereby:

- 1. acknowledge my understanding of the M/WBE participation requirements as set forth herein and the pertinent provisions of Section 6-129 of the Administrative Code of the City of New York ("Section 6-129"), and the rules promulgated thereunder;
- 2. affirm that the information supplied in support of this M/WBE Utilization Plan is true and correct;
- 3. agree, if awarded this Contract, to comply with the M/WBE participation requirements of this Contract, the pertinent provisions of Section 6-129, and the rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract;
- 4. agree and affirm that it is a material term of this Contract that the Vendor will award the total dollar value of the M/WBE Participation Goals to certified MBEs and/or WBEs, unless a full waiver is obtained or such Goals are modified by the Agency; and
- 5. agree and affirm, if awarded this Contract, to make all reasonable, good faith efforts to meet the M/WBE Participation Goals, or If a partial waiver is obtained or such Goals are modified by the Agency, to meet the modified Participation Goals by soliciting and obtaining the participation of certified MBE and/or WBE firms.

Signature_

_____ _{Date} 3/5/2022

Print Name Hafez Shraideh

_{Title} PM

SAFETY QUESTIONNAIRE

The Bidder must include, with its bid, all information requested on this Safety Questionnaire. Failure to provide a completed and signed Safety Questionnaire at the time of bid opening may result in disqualification of the bid as non-responsive. This Safety Questionnaire will be reviewed as per Section V of the Safety Requirements for Construction Contracts, found in Volume 2 of the Contract.

1. Bidder Information:

Company Name: DiFazio Industries LLC

DDC Project Number: <u>MIBBNC04A</u>

Company Size: \Box Ten (10) employees or less

Greater than ten (10) employees

Company has previously worked for DDC: \square YES \square NO

2. Type(s) of Construction Work:

Identify the types of work that the Bidder has performed in the last three years, and the types of work that are part of this Contract.

TYPE OF WORK	LAST 3 YEARS	THIS PROJECT
General Building Construction		
Residential Building Construction		
Nonresidential Building Construction		
Heavy Construction, except building		\mathbf{X}
Highway and Street Construction	\boxtimes	X
Heavy Construction, except highways		
Plumbing, Heating, HVAC		
Painting and Paper Hanging		
Electrical Work		
Masonry, Stonework and Plastering		
Carpentry and Floor Work		
Roofing, Siding, and Sheet Metal		
Concrete Work		
Specialty Trade Contracting		
Asbestos Abatement		
Other (specify)	□	

3. Experience Modification Rate:

The Experience Modification Rate (EMR) is a rating generated by the National Council of Compensation Insurance (NCCI). This rating is used to determine the contractor's premium for worker's compensation insurance. The Bidder / Contractor may obtain its EMR by contacting its insurance broker or the NCCI. If the Bidder cannot obtain its EMR, it must submit a written explanation as to why.

The Bidder must indicate its <u>Intra</u>state and <u>Interstate EMR</u> for the past three years. [Note: For contractors with less than three years of experience, the EMR will be considered to be 1.00].

YEAR	INTRASTATE RATE	INTERSTATE RATE
_2019		1.22
2020		1.59
2021		1.58

If the Intrastate and/or Interstate EMR for any of the past three years is greater than 1.00, the Bidder / Contractor must attach, to this questionnaire, a written explanation for the rating and identify what corrective action was taken to correct the situation resulting in that rating.

- 4. OSHA Information:
- □ YES ⊠ NO Contractor has received a willful violation issued by OSHA or a New York City Department of Buildings (NYCDOB) construction-related violation within the last three years.
- □ YES ⊠ NO Contractor has had an incident requiring OSHA notification within 8 hours (all workrelated fatalities) or an incident requiring OSHA notification within 24 hours (workrelated in-patient hospitalization, amputation and all loss of an eye).

The OSHA Form 300 "Log of Work-Related Injuries and Illnesses" and OSHA Form 300A "Summary of Work-Related Injuries and Illnesses" must be submitted for the last three years for Contractors with more than ten employees.

The Bidder / Contractor must indicate the total number of hours worked by its employees, as reflected in payroll records for the past three (3) years.

The Bidder / Contractor must submit the Incident Rate for Lost Time Injuries (the Incident Rate) for the past three (3) years. The Incident Rate is calculated in accordance with the formula set forth below. For each given year, the total number of incidents is the total number of non-fatal injuries and illnesses reported on the OSHA Form 300 and OSHA Form 300A. The 200,000 hours represents the equivalent of 100 employees working forty hours a week, fifty (50) weeks per year.

Incident Rate =	Total Number of Incidents X 200,000 Total Number of Hours Worked by Employees		
YEAR	TOTAL NUMBERS OF HOURS WORKED BY EMPLOYEES	INCIDENT RATE	
2021	209,389	3.82	
2020	247,056		
2019	253,515	5.52	

If the Bidder's / Contractor's Incident Rate for any of the past three years is one point higher than the Incident Rate for the type of construction it performs (listed below), the Bidder / Contractor must attach, to this questionnaire, a written explanation for the relatively high rate.

General Building Construction	
Residential Building Construction	
Nonresidential Building Construction10.	
Heavy Construction, except building 8.7	
Highway and Street Construction	
Heavy Construction, except highways	
Plumbing, Heating, HVAC11.	
Painting and Paper Hanging 6.9)
Electrical Work	
Masonry, Stonework and Plastering10.	5
Carpentry and Floor Work	
Roofing, Siding, and Sheet Metal 10.	
Concrete Work	
Specialty Trade Contracting	

5. Safety Performance on Previous DDC Project(s)

□ YES ⊠ NO Fatality or an incident requiring OSHA notification within 24 hours (work-related in-patient hospitalization, amputation and all loss of an eye) on DDC Project(s) within the last three (3) years.

DDC Project Number(s): _____, ____,

The Bidder hereby affirms that all the information provided in this Safety Questionnaire and all additional pages and/or attachments, if applicable, consist of accurate representations.

Date: <u>3/8/2022</u>

By: Joseph LoBrutto Line, Partner, Corporate Officer)

V

Title: Business Director

Pre-Award Process

The bidder is advised that as part of the pre-award review of its bid, it may be required to submit the information described in Sections (A) through (D) below. If required, the bidder must submit such information within five (5) business days following receipt of notification from DDC that it is among the low bidders. Such notification from DDC will be by email and will specify the types of information which must be submitted directly to DDC.

In the event the bidder fails to submit the required information within the specified time frame, its bid may be rejected as nonresponsive.

- (A) Project Reference Form: If required, the bidder must complete and submit the Project Reference Form set forth in this Bid Booklet. The Project Reference Form consists of 3 parts: (1) Contracts Completed by the Bidder, (2) Contracts Currently Under Construction by the Bidder, and (3) Pending Contracts Not Yet Started by the Bidder.
- (B) Copy of License: If required, the bidder must submit a copy of the license under which the bidder will be performing the work. Such license must clearly show the following: (1) Name of the Licensee, (2) License Number, and (3) Expiration date of the License. A copy of the license will be required from bidders for the following contracts: Plumbing Work, Electrical Work and Asbestos Abatement.
- (C) **Financial Information**: If required, the bidder must submit the financial information described below:
 - (1) Audited Financial Statements: Financial statements (Balance Sheet and Income Statement) of the entity submitting the bid, as audited by an independent auditor licensed to practice as a certified public accountant (CPA). Audited financial statements for the three most recent fiscal years must be submitted. Each such financial statement must include the auditor's standard report.

If the bidder does not have audited financial statements, it must submit an affidavit attesting to the fact that the bidder does not have such statements. In addition, the bidder must submit the following documentation covering the three most recent fiscal years: signed federal tax returns, unaudited financial statements, and a "certified review letter" from a certified public accountant (CPA) verifying the unaudited financial statements.

Unless the most recent audited or unaudited financial statement was issued within ninety (90) days, the bidder must submit interim financial information that includes data on financial position and results of operation (income data) for the current fiscal year. Such information may be summarized on a monthly or quarterly basis or at other intervals.

(2) Schedule of Aged Accounts Receivable, including portion due within ninety (90) days.

- (D) **Project Specific Information**: If required, the bidder must submit the project specific information described below:
 - (1) Statement indicating the number of years of experience the bidder has had and in what type of construction.
 - (2) Resumes of all key personnel to be involved in the project, including the proposed project superintendent.
 - (3) List of significant pieces of equipment expected to be used for the contract, and whether such equipment is owned or leased.
 - (4) Description of work expected to be subcontracted, and to what firms, if known.
 - (5) List of key material suppliers.
 - (6) Preliminary bar chart time schedule
 - (7) Contractor's expected means of financing the project. This should be based on the assumption that the contractor is required to finance 2X average monthly billings throughout the contract period.
 - (8) Any other issues the contractor sees as impacting his ability to complete the project according to the contract.

In addition to the information described in Sections (A) through (D) above, the bidder shall submit such additional information as the Commissioner may require, including without limitation, an explanation or justification for specific unit price items.

The bidder is further advised that it may be required to attend a pre-award meeting with DDC representatives. If such a meeting is convened, the bidder will be advised as to any additional material to be provided.

PROJECT REFERENCE FORMS

A. PROJECT REFERENCES – CONTRACTS COMPLETED BY THE BIDDER

List all contracts substantially completed within the last four (4) years, up to a maximum of 10 projects, in descending order of date of substantial completion.

Project & Location	Contract Type	Contract Amount (\$000)	Date Completed	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. (if different from owner)
RED002 Staten Island	NYC DDC	\$18 Million	09/18	Srinivasa Keshava 718-982-5012	
GE358 Brooklyn	NYC DDC	\$12.5 Million	04/18	Benjamin Mey 718-595-7665	
HWR300-3 Staten Island	NYC DDC	\$3 Million	11/17	David Petterson 732-207-9993	
SE818 Staten Island	NYC DDC	\$47.5 Million	06/17	Adam Alweiss 718-391-1110	
RED377 Brooklyn	NYC DDC	\$7 Million	06/17	Odetter Michael 718-391-1101	
SER200239 Staten Island	NYC DDC	\$5.3 Million	06/17	David Petterson 732-207-9993	
REDA001 Staten Island	NYC DDC	\$14 Million	09/16	Syed Noman 917-642-1993	
South Railroad Ave Staten Island	NYC DDC	\$10.5 Million	07/15	Adam Alweiss 718-391-1110	

PROJECT REFERENCE FORMS

A. PROJECT REFERENCES – CONTRACTS COMPLETED BY THE BIDDER

List all contracts substantially completed within the last four (4) years, up to a maximum of 10 projects, in descending order of date of substantial completion.

Project & Location	Contract Type	Contract Amount (\$000)	Date Completed	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. (if different from owner)
REDA003 Staten Island	NYC DDC	\$7 Million	10/20	Srinivasa Keshava 718-982-5012	
SE803 Staten Island	NYC DDC	\$35 Million	12/20	Syed Noman 917-642-1993	
SER200151 Staten Island	NYC DDC	\$10.5 Million	11/20	Timoth Lattanzio 646-369-0448	
SEQ002714 Queens	NYC DDC	\$5 Million	09/20	Jean Clermont 917-709-6646	

B. PROJECT REFERENCES - CONTRACTS CURRENTLY UNDER CONSTRUCTION BY THE BIDDER

List all contracts currently under construction similar to the contract being awarded.

Project & Location	Contract Type	Contract Amount (\$000)	Date Completed	Owner Reference & Tel. No.	Architect/Engineer Reference & Tel. No. (if different from owner)
MIBBNIC002 Staten Island	NYC DDC	\$38 Million	In Progress 95% Completed	David Petterson 732-207-9993	
QED976 Queens	NYC DDC	\$48 Million	In Progress 85% Completed	Mauro DeVincency 718-391-2349	
SEN002169 Manhattan	NYC DDC	\$7 Million	In Progress 70% Completed	Krupesh Patel 212-313-3531	
LSLR-19KR	NYC DEP	\$2.5 Million	In Progress 75% Completed	Jevon Griffin 646-939-8147	
BED778A Brooklyn	NYC DDC	\$8.8 Million	In Progress 90% Completed	Maria Brando 718-250-5011	

C. PROJECT REFERENCES – PENDING CONTRACTS NOT YET STARTED BY THE BIDDER

List all contracts awarded to or won by the bidder but not yet started.

Project & Location	Contract Type	Contract Amount (\$000)	Amount Completed Owner Reference & Tel. (\$000)		Architect/Engineer Reference & Tel. No. (if different from owner)
HWMWTCB2 Manhattan Greenwich St	NYC DDC	\$18.74 Million		Peter Roloff P.E. 917-494-4581	
SER200236 Staten Island North Ave	NYC DDC	\$5.76 Million		Timothy Lattanzio 718-982-5017	
P-184 Staten Island	Prismatic/ DSNY	\$3.25 Million		Jim Buchan 201-400-0011	
William Sheridan Playground Brooklyn	NYC DPR	\$4.81 Million		Kamran Ahmad 917-635-4248	
Backhoe Loader With Operating Engineer, Region 3, Queens	NYC DEP	\$3.72 Million		Jesse Goldin 646-734-9221	
Backhoe Loader With Operating Engineer, Region 1, Manhattan	NYC DEP	\$2.71 Million		Jesse Goldin 646-734-9221	
EC-SEKS22 South Brooklyn Emergency Sewer	NYC DDC	\$7.72 Million		Iftaker Ahmed 646-251-9508	
· · · · · ·					

Bid Schedule

The Questionnaire in the PASSPort system contains the Bid Schedule. Items listed in the Bid Schedule shall comply with the requirements of the corresponding sections of the specifications detailed in the table below. All references to the Standard Specifications, Details, Standards and Drawings shall be to the version in effect at the time of bid.

NOTES:

- "XXX" in the table below signifies any possible combination of characters and spaces.
- The table below may contain item formats which are not included in the Bid Schedule. *Please refer to the Bid Schedule to determine which specifications apply.*

Item Number Format	Applicable Specifications
4.XXX	NYC Department of Transportation ("DOT") Standard Highway Specifications,
6.XXX	as amended in the R-Pages, located in Volume 3 of 3 herein;
7.XXX	AND
8.XXX	NYC DOT Standard Details of Construction;
(Except 8.01 XXX; see below)	OR,
9.XXX	if the item is not contained within the Standard Specifications, then see the
HW-XXX	applicable New Sections in the I-Pages, located in Volume 3 of 3 herein.
	NYC Department of Environmental Protection ("DEP") Standard Sewer and Water Main Specifications, as amended in the R-Pages and SW-Pages, located in Volume 3 of 3 herein;
1.XXX	AND
50.XXX through 55.XXX	NYC DEP Specifications for Trunk Main Work;
60.XXX through 66.XXX	AND
70.XXX through 79.XXX	NYC DEP Sewer Design Standards;
(Except 79.11XXX; see below)	AND
DSS XXX	NYC DEP Water Main Standard Drawings;
DSW XXX	OR,
	<i>if the item is not contained within the Standard Specifications,</i> then see the Amendments to the Standard Sewer and Water Main Specifications in the SW-Pages, located in Volume 3 of 3 herein.
GI-XXX	New Sections in the I-Pages, located in Volume 3 of 3 herein
PM-XXX	AND
ROW XXX	NYC DEP Standards for Green Infrastructure.

Item Number Format	Applicable Specifications							
UTL-XXX	Gas Cost Sharing Standard Specifications in the EP7-Pages, located in Volume 3 of 3 herein.							
83X.XXX								
MX.XXX								
MP XXX								
NYC-XXX	Now Sections in the L Dages Jecated in Volume 2 of 2 herein							
NYCT-XXX	New Sections in the I-Pages, located in Volume 3 of 3 herein.							
NYPD-XXX								
P XXX								
PK-XXX								
BMP-XXX	Specifications for Construction of Best Management Practice (BMP) and Mitigation Area in the BMP-Pages, located in Volume 3 of 3 herein.							
E XXX	Specifications for the Specialty Electrical Works in the EL-Pages, located in							
ME XXX	Volume 3 of 3 herein.							
	NYC DOT Division of Street Lighting Specifications							
SL-XXX	AND							
	NYC Division of Street Lighting Standard Drawings.							
	NYC DOT Specifications for Traffic Signals and Intelligent Transportation Systems							
T-XXX	AND							
	NYC DOT Traffic Signal Standard Drawings.							
JB XXX	Joint Bid Specifications in the JB-Pages, located in Volume 3 of 3 herein.							
8.01 XXX	Specifications for Handling, Transportation and Disposal of Nonhazardous and Potentially Hazardous Contaminated Materials in the HAZ-Pages, located in Volume 3 of 3 herein.							
67.XXX	Specifications for Abatement of Coal Tar Wrap Asbestos Containing Materials in the ASB-Pages, located in Volume 3 of 3 herein.							
79.11XXX	Specifications for Abatement of Transit Authority Duct Insulation Asbestos Containing Materials in the ASB-Pages, located in Volume 3 of 3 herein.							

Code	Item No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
		ASPHALT MACADAM						Required
bid_1	4.01 RAG	PAVEMENT, 6" THICK	300	S.Y.	150	45000)	ltem
		ASPHALTIC CONCRETE						
		WEARING COURSE, 1-1/2"						Required
bid_2	4.02 AB-R	ТНІСК	100	S.Y.	77	7700		Item
								Required
bid_3	4.02 CA	BINDER MIXTURE	50	TONS	317	15850		Item
								Required
bid_4	4.08 AA	CONCRETE CURB (18" DEEP)	1010	L.F.	65	65650)	Item
		CONCRETE CURB,						Required
bid_5	4.08 AEM	MOUNTABLE (22" DEEP)	34	L.F.	75	2550		ltem
		STRAIGHT STEEL FACED						Required
bid_6	4.09 AD	CONCRETE CURB (18" DEEP)	40	L.F.	102	4080		ltem
		DEPRESSED STEEL FACED						Required
bid_7	4.09 BD	CONCRETE CURB (18" DEEP)	20	L.F.	126	2520		ltem
		CORNER STEEL FACED						Required
bid_8	4.09 CD	CONCRETE CURB (18" DEEP)	20	L.F.	218	4360		Item
			_					Required
bid_9	4.11 CA	FILL, PLACE MEASUREMENT	5	C.Y.	7	35		Item
		4" CONCRETE SIDEWALK						Required
bid_10	4.13 AAS	(UNPIGMENTED)	1600	S.F.	12	19200		Item
		7" CONCRETE SIDEWALK						Required
bid_11	4.13 BAS	(UNPIGMENTED)	300	S.F.	23	6900		ltem
		7" REINFORCED CONCRETE						Required
bid_12	4.13 BR	SIDEWALK (UNPIGMENTED)	510	S.F.	16	8160		Item

Code	Item No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
		EMBEDDED PREFORMED						Required
bid_13	4.13 DE	DETECTABLE WARNING UNITS	60	S.F.	15	900		Item
		MAINTENANCE TREE PRUNING						Required
bid_14	4.18 A	(UNDER 12" CAL.)	1	EACH	185	185		Item
		MAINTENANCE TREE PRUNING						Required
bid_15	4.18 B	(12" TO UNDER 18" CAL.)	1	EACH	285	285		Item
		MAINTENANCE TREE PRUNING						Required
bid_16	4.18 C	(18" TO UNDER 24" CAL.)	1	EACH	395	395		Item
		MAINTENANCE TREE PRUNING						Required
bid_17	4.18 D	(24" CAL. AND OVER)	1	EACH	495	495		Item
								Required
bid_18	4.21	TREE CONSULTANT	50	P/HR	80	4000		Item
		24" R.C.P. CLASS III STORM						
		SEWER, ENCASED IN						Required
bid_19	50.21M3E024D	CONCRETE	7	L.F.	1260	8820		Item
		36" R.C.P. CLASS III STORM						
		SEWER, ENCASED IN						Required
bid_20	50.21M3E036D	CONCRETE	33	L.F.	910	30030		Item
		18" E.S.V.P. STORM SEWER,						Required
bid_21	50.31ME18	ENCASED IN CONCRETE	30	L.F.	600	18000		Item
		STANDARD MANHOLE TYPE A-						Required
bid_22	51.21S0A1000V	1	2	EACH	10000	20000		Item
		STANDARD MANHOLE TYPE C-						Required
bid_23	51.21S0C1036R	1 ON 36" R.C.P. SEWER	1	EACH	35000	35000		Item
		STANDARD CATCH BASIN,						Required
bid_24	51.41AA	TYPE 1	6	EACH	10000	60000		Item

Code	Item No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
		12" DUCTILE IRON PIPE BASIN						Required
bid_25	52.11D12	CONNECTION	70	L.F.	525	36750		Item
		TELEVISION INSPECTION AND						
		DIGITAL AUDIO-VISUAL						Required
bid_26	53.11DR	RECORDING OF SEWERS	70	L.F.	5	350)	Item
								Required
bid_27	6.02 AAN	UNCLASSIFIED EXCAVATION	200	C.Y.	85	17000		Item
								Required
bid_28	6.25 RS	TEMPORARY SIGNS	500	S.F.	3.5	1750)	Item
								Required
bid_29	6.26	TIMBER CURB	1000	L.F.	5	5000)	Item
								Required
bid_30	6.28 AA	LIGHTED TIMBER BARRICADES	200	L.F.	5	1000)	Item
		ENGINEER'S FIELD OFFICE						Required
bid_31	6.40 D	(TYPE D)	24	MONTH	15000	360000)	Item
		THERMOPLASTIC						
		REFLECTORIZED PAVEMENT						Required
bid_32	6.44	MARKINGS (4" WIDE)	500	L.F.	3	1500		Item
		TEMPORARY PAVEMENT						Required
bid_33	6.49	MARKINGS (4" WIDE)	1000	L.F.	0.75	750		Item
								Required
bid_34	6.52 CG	CROSSING GUARD	1260	P/HR	25	31500		Item
		REMOVE EXISTING LANE						Required
bid_35	6.53	MARKINGS (4" WIDE)	500	L.F.	1	500		Item
_		TEMPORARY CONCRETE						Required
bid_36	6.59 P	BARRIER	1000	L.F.	12.5	12500		Item
		SUBBASE COURSE, SELECT			-			Required
bid_37	6.67	GRANULAR MATERIAL	25	C.Y.	100	2500		Item

Code	ltem No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
								Required
bid_38	6.68	PLASTIC FILTER FABRIC	150	S.Y.	2	300		Item
								Required
bid_39	6.87	PLASTIC BARRELS	500	EACH	12	6000		Item
		FURNISHING AND DELIVERING						
		8-INCH DUCTILE IRON						
		RESTRAINED JOINT PIPE						Required
bid_40	60.11R608	(CLASS 56)	40	L.F.	71	2840		Item
		LAYING 8-INCH DUCTILE IRON						Required
bid_41	60.12D08	PIPE AND FITTINGS	45	L.F.	255	11475		Item
		FURNISHING AND DELIVERING						
		DUCTILE IRON MECHANICAL						
		JOINT 24-INCH DIAMETER AND						
		SMALLER FITTINGS,						
		INCLUDING WEDGE TYPE						Required
bid_42	60.13M0A24	RETAINER GLANDS	1	TONS	10600	10600		ltem
		FURNISHING, DELIVERING AND						
		INSTALLING BELL JOINT						
		CLAMPS, COMPLETE FOR 20-						Required
bid_43	60.18BJC20EL	INCH PIPE AND LESS	2	EACH	1815	3630		Item
							Unit price bid shall	
		FURNISHING AND PLACING					not be less than: \$	Required
bid_44	65.21PS	POLYETHYLENE SLEEVE	50	L.F.	2	100	2.00	ltem
							Unit price bid shall	
		FURNISHING, DELIVERING AND						Required
bid_45	65.31FF	PLACING FILTER FABRIC	500	S.F.	0.25	125	0.25	Item

Code	Item No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
		FURNISHING, DELIVERING AND						
		PLACING SCREENED GRAVEL						
		OR SCREENED BROKEN STONE						Required
bid_46	65.71SG	BEDDING	10	C.Y.	25	250		Item
							Unit price bid shall	
							not be less than: \$	Required
bid_47	7.13 B	MAINTENANCE OF SITE	18	MONTH	8000	144000	8,000.00	Item
		PEDESTRIAN STEEL						Required
bid_48	7.36	BARRICADES	500	L.F.	1.5	750		Item
							Unit price bid shall	
		RODENT INFESTATION SURVEY					not be less than: \$	Required
bid_49	7.88 AA	AND MONITORING	1	L.S.	1000	1000	1,000.00	Item
							Unit price bid shall	
							not be less than: \$	Required
bid_50	7.88 AB	RODENT BAIT STATIONS	160	EACH	63	10080	63.00	Item
							Unit price bid shall	
		BAITING OF RODENT BAIT					not be less than: \$	Required
bid_51	7.88 AC	STATIONS	160	EACH	11	1760	11.00	Item
							Unit price bid shall	
		WATERBUG BAIT					not be less than: \$	Required
bid_52	7.88 AD	APPLICATIONS	48	BLOCK	70	3360	70.00	Item
							Unit price bid shall	
							not be less than: \$	Required
bid_53	70.11TT	TIMBER PILES (TREATED)	7980	V.F.	50	399000	19.00	Item
								Required
bid_54	70.21DK	DECKING	100	S.Y.	170	17000		Item
							Unit price bid shall	
							not be less than: \$	Required
bid_55	70.31FN	FENCING	1000	L.F.	2	2000	2.00	Item

Code	Item No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
							Unit price bid shall	
							not be less than: \$	Required
bid_56	70.71SB	STONE BALLAST	100	C.Y.	15	1500	15.00	Item
							Unit price bid shall	
							not be less than: \$	Required
bid_57	70.81CB	CLEAN BACKFILL	10	C.Y.	15	150	15.00	Item
		HYDRAULIC FILL FOR						
		ABANDONED SEWERS AND						Required
bid_58	72.11HF	WATER MAINS	90	C.Y.	250	22500		Item
							Unit price bid shall	
							not be less than: \$	Required
bid_59	73.11AB	ADDITIONAL BRICK MASONRY	10	C.Y.	46.5	465	46.50	Item
							Unit price bid shall	
							not be less than: \$	Required
bid_60	73.21AC	ADDITIONAL CONCRETE	10	C.Y.	62.5	625	62.50	Item
		ADDITIONAL EARTH					Unit price bid shall	
		EXCAVATION INCLUDING TEST					not be less than: \$	Required
bid_61	73.31AE0	PITS (ALL DEPTHS)	100	C.Y.	20	2000	20.00	Item
							Unit price bid shall	
		ADDITIONAL SELECT					not be less than: \$	Required
bid_62	73.41AG	GRANULAR BACKFILL	50	C.Y.	14.5	725	14.50	Item
							Unit price bid shall	
		ADDITIONAL STEEL					not be less than: \$	Required
bid_63	73.51AS	REINFORCING BARS	1000	LBS.	1	1000	1.00	Item
							Unit price bid shall	
							not be less than: \$	Required
bid_64	73.61AT	ADDITIONAL STONE BALLAST	100	C.Y.	12.5	1250	12.50	Item
								Required
bid_65	76.11CR	CONSTRUCTION REPORT	1	L.S.	20000	20000		Item

						_		
Code	Item No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
		MONITORING AND POST-						Required
bid_66	76.21MR	CONSTRUCTION REPORT	1	L.S.	20000	20000		Item
		HANDLING, TRANSPORTING AND DISPOSAL OF NON-					Linit price hid shall	
		HAZARDOUS CONTAMINATED					Unit price bid shall not be less than: \$	Boguirod
hid 67	8.01 C1		46400	TONS	85	3944000		Required
bid_67	8.01 C1	SOIL	46400		65	3944000	85.00	ltem
		SAMPLING AND TESTING OF						
		CONTAMINATED/POTENTIALL					Unit price bid shall	
		Y HAZARDOUS SOIL FOR					not be less than: \$	Required
bid_68	8.01 C2	DISPOSAL PURPOSES	62	SETS	2000	124000	2,000.00	Item
	0.01 02		02	5215	2000	124000	2,000.00	
		HANDLING, TRANSPORTING					Unit price bid shall	
		AND DISPOSAL OF					not be less than: \$	Required
bid 69	8.01 H	HAZARDOUS SOIL	2500	TONS	400	1000000	· ·	Item
							Unit price bid shall	
							not be less than: \$	Required
bid_70	8.01 S	HEALTH AND SAFETY	1	L.S.	15000	15000	15,000.00	Item
							,	
		REMOVAL, TREATMENT, AND					Unit price bid shall	
		DISCHARGE/DISPOSAL OF					not be less than: \$	Required
bid_71	8.01 W1	CONTAMINATED WATER	44	DAY	1700	74800	1,700.00	Item
							Unit price bid shall	
		SAMPLING AND TESTING OF					not be less than: \$	Required
bid_72	8.01 W2	CONTAMINATED WATER	44	SETS	1400	61600	1,400.00	Item
		STORM WATER POLLUTION						Required
bid_73	9.30	PREVENTION	1	L.S.	20000	20000		Item
								Required
bid_74	BMP-7.09	LICENSED SURVEYOR	30	DAY	3320	99600		Item

Code	Item No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
hid 75		CONCRETE		CV	1500	6000		Required
bid_75	BMP-7.103	CONCRETE	4	C.Y.	1500	6000		Item
bid_76	BMP-7.103-A	CONCRETE (NONSTRUCTURAL)	245	C.Y.	175	42875		Required Item
			243		1/5	42075		Required
bid_77	BMP-7.117	GRAFFITI RESISTANT COATING	100	S.F.	25	2500		Item
								Required
bid_78	BMP-7.129-1	STRUCTURE NO. 1	1	EACH	300000	300000		Item
								Required
bid_79	BMP-7.129-2	STRUCTURE NO. 2	1	EACH	350000	350000		Item
								Required
bid_80	BMP-7.129-3	STRUCTURE NO. 3	1	EACH	1576737.27	1576737.27		Item
								Required
bid_81	BMP-7.129-4	STRUCTURE NO. 4	1	EACH	340000	340000		Item
								Required
bid_82	BMP-7.129-5	STRUCTURE NO. 5	1	EACH	350000	350000		Item
								Required
bid_83	BMP-7.204	PA COLONIAL STONE	5	C.Y.	5000	25000		Item
		DEBRIS REMOVAL AND						Required
bid_84	BMP-7.301	DISPOSAL	30	C.Y.	115	3450		Item
		CLEARING, GRUBBING AND						Required
bid_85	BMP-7.302	REMOVALS	150000	S.F.	1.15	172500		Item
								Required
bid_86	BMP-7.304-A	EXCAVATION	27900	C.Y.	43	1199700		ltem
		TREE REMOVAL 6" TO 12"						Required
bid_87	BMP-7.306-A	CALIPER	230	EACH	350	80500		Item
		TREE REMOVAL ABOVE 12" TO						Required
bid_88	BMP-7.306-B	18" CALIPER	70	EACH	525	36750		Item
		TREE REMOVAL ABOVE 18" TO						Required
bid_89	BMP-7.306-C	24" CALIPER	25	EACH	950	23750		Item

Code	ltem No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
		TREE REMOVAL ABOVE 24"						Required
bid_90	BMP-7.306-D	CALIPER	20	EACH	1600	32000		Item
								Required
bid_91	BMP-7.307-A	GRADING	150000	S.F.	0.55	82500		Item
								Required
bid_92	BMP-7.308	FILL	200	С.Ү.	6	1200		Item
		NON-HAZARDOUS MATERIAL						Required
bid_93	BMP-7.312-C	REMOVAL	70	С.Ү.	98	6860		Item
		CANOPY TREES (1 1/2" TO 2"						Required
bid_94	BMP-7.401-A1	CALIPER)	830	EACH	580	481400		Item
		CANOPY TREES - WHIPS 5' TO						Required
bid_95	BMP-7.401-C	6'	8	EACH	290	2320		Item
								Required
bid_96	BMP-7.401-H	SHRUBS	283	EACH	85	24055		Item
								Required
bid_97	BMP-7.401-I	SEEDING	122000	S.F.	0.45	54900		Item
								Required
bid_98	BMP-7.401-J	HERBACEOUS PLANTS (PLUGS)	16710	EACH	4.05	67675.5		Item
								Required
bid_99	BMP-7.403	TOPSOIL	2610	C.Y.	90	234900		Item
								Required
bid_100	BMP-7.404-A	RESTORATION SPECIALIST	392	HRS	150	58800		Item
								Required
bid_101	BMP-7.405-A	VECTOR AND PEST CONTROL	174	HRS	175	30450		Item
								Required
bid_102	BMP-7.407-A	EROSION CONTROL MAT	122000	S.F.	0.48	58560		Item
								Required
bid_103	BMP-7.408-B	HERBICIDE APPLICATION	13	CREW DAY	3000	39000		Item

Code	Item No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
		WEEDING AND WATERING						
		DURING MAINTENANCE						Required
bid_104	BMP-7.411-A	PERIOD	800	HRS	300	240000		Item
		TEMPORARY GOOSE						Required
bid_105	BMP-7.413	EXCLUSION FENCE	1065	L.F.	14	14910)	Item
		INVASIVE VINE AND PLANT						Required
bid_106	BMP-7.415	REMOVAL	13	CREW DAY	4905	63765	;	Item
								Required
bid_107	BMP-7.419	TREE AND ROOT PRUNING	13	CREW DAY	6670	86710		Item
								Required
bid_108	BMP-7.502	CONSTRUCTION LIMIT FENCE	1300	L.F.	9	11700		Item
		GALVANIZED STEEL "W" BEAM						Required
bid_109	BMP-7.601-G	GUIDE RAIL	133	L.F.	175	23275	;	Item
		STEEL PIPE BOLLARD -						Required
bid_110	BMP-7.603-B	REMOVABLE	2	EACH	650	1300		Item
		8-FOOT BLACK CHAIN LINK						Required
bid_111	BMP-7.604-8	FENCE	16	L.F.	175	2800		Item
		8-FOOT BLACK CHAIN LINK						Required
bid_112	BMP-7.604-8G	FENCE GATE	3	EACH	3600	10800		Item
								Required
bid_113	BMP-7.605-B	0.020" TEMPORARY SIGNS	10	EACH	285	2850		Item
		0.080" PERMANENT SIGNS						Required
bid_114	BMP-7.605-C	(BMP ID)	5	EACH	300	1500		Item
		0.080" PERMANENT SIGNS						Required
bid_115	BMP-7.605-D15	(NEW CREEK)	5	EACH	300	1500		Item
		0.080" PERMANENT SIGNS						Required
bid_116	ВМР-7.605-Е	(ADOPT A BLUEBELT)	5	EACH	180	900)	Item
								Required
bid_117	BMP-7.606-B	ACCESSWAY (PAVERS)	435	S.F.	60	26100)	ltem

Code	ltem No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
		PERMANENT MAINTENANCE						Required
bid_118	BMP-7.606-C	ACCESSWAY (GRAVEL)	1450	S.F.	16	23200		Item
								Required
bid_119	BMP-7.608-B	SURVEY MONUMENTS	3	EACH	1000	3000		Item
								Required
bid_120	BMP-7.710	RENO MATTRESS	250	S.Y.	40	10000		Item
		GAS SERVICES CROSSING					Unit price bid shall	
		TRENCHES AND/OR					not be less than: \$	Required
bid_121	UTL-6.01.8 (NG)	EXCAVATIONS (S6.01)	1	EACH	550	550	550.00	Item
		EXTRA EXCAVATION FOR THE						
		INSTALLATION OF CATCH						
		BASIN SEWER DRAIN PIPES					Unit price bid shall	
		WITH GAS INTERFERENCES					not be less than: \$	Required
bid_122	UTL-6.02 (NG)	(\$6.02)	1	EACH	850	850	850.00	Item
		REMOVAL OF ABANDONED					Unit price bid shall	
		GAS FACILITIES. ALL SIZES.					not be less than: \$	Required
bid_123	UTL-6.03 (NG)	(\$6.03)	100	L.F.	15	1500	15.00	Item
		REMOVAL OF ABANDONED						
		GAS FACILITIES WITH POSSIBLE						
		COAL TAR WRAP. ALL SIZES.					Unit price bid shall	
		(FOR NATIONAL GRID WORK					not be less than: \$	Required
bid 124	UTL-6.03.1 (NG)	ONLY) (S6.03)	50	L.F.	25	1250	25.00	Item
	, ,	ADJUST HARDWARE TO						
		GRADE USING SPACER					Unit price bid shall	
		RINGS/ADAPTORS. (STREET					not be less than: \$	Required
bid 125	UTL-6.04 (NG)	REPAVING.) (S6.04)	2	EACH	35	70	35.00	litem

Code	ltem No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
			Quantity			rotai		
		ADJUST HARDWARE TO					Unit price bid shall	
		GRADE BY RESETTING. (ROAD						Required
bid_126	UTL-6.05 (NG)	RECONSTRUCTION.) (S6.05)	2	EACH	65	130	65.00	Item
							Unit price bid shall	
		SPECIAL CARE EXCAVATION					not be less than: \$	Required
bid_127	UTL-6.06 (NG)	AND BACKFILLING (S6.06)	100	C.Y.	180	18000	180.00	Item
							Unit price bid shall	
		TEST PITS FOR GAS FACILITIES					not be less than: \$	Required
bid_128	UTL-6.07 (NG)	(S6.07)	10	C.Y.	100	1000	100.00	Item
		TRENCH EXCAVATION AND BACKFILL FOR GAS MAINS AND SERVICES. GAS INSTALLED BY OTHERS (FOR NATIONAL GRID					Unit price bid shall not be less than: \$	Required
bid_129	UTL-6.09 (NG)	WORK ONLY). (S6.09)	20	C.Y.	190	3800	190.00	Item

				Allowance	ENTER ONE IN THE	Allowance	
Code	Item No.	Label	Unit	Amount	BOXES BELOW	Amount_1	Field type
		ALLOWANCE FOR ANTI-FREEZE ADDITIVE IN					Additional
fs_1	9.04 HW	CONCRETE	F.S.	20000	1	20000	Fees
							Additional
fs_2	BMP-7.10	PHASE 1A, 1B AND 2 ARCHAELOGICAL STUDY	F.S.	86800	1	86800	Fees
		GAS INTERFERENCES AND					Additional
fs_3	UTL-GCS-2WS (NG)	ACCOMMODATIONS	F.S.	75000	1	75000	Fees

Code	ltem No.	Label	Quantity	Unit	Unit Price	Total	Price Criteria	Field type
							BID PRICE OF MOBILIZATION SHALL NOT	Required
mob_1	6.39 B	MOBILIZATION	1	L.S.	1070000	1070000	EXCEED 8% OF THE ABOVE SUB-TOTAL PRICE.	Item



Department of Design and Construction

THE CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION

DIVISION OF INFRASTRUCTURE

30-30 THOMSON AVENUE LONG ISLAND CITY, NY, 11101 TEL: 718.391.1000 WEB: www.nyc.gov/ddc

TO BE FILLED IN BY THE BIDDER:

BIDDER'S NAME:

BID SECURITY (CIRCLE ONE): BID BOND / CERTIFIED CHECK

NUMBER OF ADDENDUMS RECEIVED AND ATTACHED TO BID:

___ ADDENDUMS

DDC CLIENT AGENCY:

THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

PREPARED BY:

IN-HOUSE DESIGN

DATE PREPARED:

December 12, 2021



VOLUME 2 OF 3

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: MIBBNC04A

INFORMATION FOR BIDDERS CONTRACT PERFORMANCE AND PAYMENT BONDS PREVAILING WAGE SCHEDULE

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

CONSTRUCTION OF BEST MANAGEMENT PRACTICES BMP NC- 6 BOUNDARY AVENUE AND BMP NC-15 LACONIA AVENUE

TOGETHER WITH ALL WORK INCIDENTAL THERETO BOROUGH OF STATEN ISLAND CITY OF NEW YORK



Department of Design and Construction

THE CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION

DIVISION OF INFRASTRUCTURE

30-30 THOMSON AVENUE LONG ISLAND CITY, NY, 11101 TEL: 718.391.1000 WEB: www.nyc.gov/ddc

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BIDDER'S NAME:

BID SECURITY (CIRCLE ONE): BID BOND / CERTIFIED CHECK

NUMBER OF ADDENDUMS RECEIVED AND ATTACHED TO BID:

____ ADDENDUMS

DDC CLIENT AGENCY:

THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PREPARED BY:

IN-HOUSE DESIGN

DATE PREPARED:

March 1, 2017



VOLUME 2 OF 3

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR: INFORMATION FOR BIDDERS CONTRACT PERFORMANCE AND PAYMENT BONDS PREVAILING WAGE SCHEDULE

NOTICE TO BIDDERS

Please be advised that a Rider to the March 2017 New York City Standard Construction Contract regarding Non-Compensable Delays and Grounds for Extension has been attached and incorporated in this Invitation for Bid. Other than provisions specifically delineated in the Rider, all other terms of the March 2017 New York City Standard Construction Contract continue to apply in full force and effect. (NO TEXT ON THIS PAGE)

CITY OF NEW YORK

DEPARTMENT OF DESIGN AND CONSTRUCTION

INFORMATION FOR BIDDERS

December 2021

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CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION **INFORMATION FOR BIDDERS**

TABLE OF CONTENTS

1.	Description and Location of Work	1
2.	Time and Place for Receipt of Bids	1
3.	Definitions	1
4.	Invitation For Bids and Contract Documents	1
5.	Pre-Bid Conference	1
6.	Agency Contact	1
7.	Bidder's Oath	1
8.	Examination and Viewing of Site, Consideration of Other Sources of Information and Changed Conditions	2
9.	Examination of Proposed Contract	2
10.	Form of Bid	2
11.	Irrevocability of Bid	3
12.	Acknowledgment of Amendments	3
13.	Bid Samples and Descriptive Literature	3
14.	Proprietary Information/Trade Secrets	3
15.	Pre-Opening Modification or Withdrawal of Bids	3
16.	Bid Evaluation and Award	3
17.	Late Bids, Late Withdrawals and Late Modifications	3
18.	Withdrawal of Bids.	3
19.	Mistake in Bids	4
20.	Low Tie Bids	4
21.	Rejection of Bids	5
22.	Right to Appeal Determinations of Non-Responsiveness or Non-Responsibility and Right to Protest Solicitations and Award	5
23.	Affirmative Action and Equal Employment Opportunity	5
25.	Complaints About the Bid Process	6
26.	Bid, Performance and Payment Security	6
27.	Failure to Execute Contract	7
28.	Bidder Responsibilities and Qualifications	7
29.	Employment Report	7
30.	Labor Law Requirements	8
31.	Insurance	8
32.	Lump Sum Contracts	8
33.	Unit Price Contracts	8

34.	Excise Tax	9
35.	Licenses and Permits	9
36.	Multiple Prime Contractors	9
37.	Locally Based Enterprise Requirements (LBE)	9
38.	Bid Submission Requirements	11
39.	Comptroller's Certificate	11
40.	Procurement Policy Board Rules	11
41.	DDC Safety Requirements	11

1. Description and Location of Work

The description and location of the work for which bids are requested are specified in the PASSPort RFx field "Description".

2. <u>Time and Place for Receipt of Bids</u>

Sealed bids shall be received on or before the date and hour specified in the PASSPort RFx, at which time they will be publicly opened and read aloud in the presence of the Commissioner or the Commissioner's or her representative, and any bidders who may desire to be present.

3. Definitions

The definitions set forth in the Procurement Policy Board Rules shall apply to this Invitation For Bids.

4. Invitation For Bids and Contract Documents

- (A) Except for titles, sub-titles, headings, running headlines, tables of contents and indices (all of which are printed herein merely for convenience) the following, except for such portions thereof as may be specifically excluded, shall be deemed to be part of the Contract and the Invitation for Bids.
 - (1) All provisions required by law to be inserted in this Contract, whether actually inserted or not
 - (2) The Contract Drawings and Specifications
 - (3) The General Conditions, the General Requirements and the Special Conditions, if any
 - (4) The Contract
 - (5) The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and the Bid Booklet
 - (6) The Budget Director's Certificate; all Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed with the Work.
- (B) For particulars as to this procurement, including quantity and quality of the purchase, extent of the work or labor to be performed, delivery and performance schedule, and any other special instructions, prospective bidders are referred to the Invitation For Bids Documents. A copy of such documents can be obtained in the PASSPort RFx.

5. <u>Pre-Bid Conference</u>

A pre-bid conference shall be held as set forth in the PASSPort RFx. Nothing stated at the pre-bid conference shall change the terms or conditions of the Invitation For Bids Documents, unless a change is made by written amendment as provided in Section 9 below. Failure to attend a mandatory pre-bid conference shall constitute grounds for the rejection of the bid.

6. Agency Contact

Any questions or correspondence relating to this bid solicitation shall be addressed to the Agency Contact person specified in the PASSPort RFx.

7. Bidder's Oath

- (A) The bid shall be properly signed by an authorized representative of the bidder and the bid shall be verified by the written oath of the authorized representative who signed the bid, that the several matters stated and information furnished therein are in all aspects true.
- (B) A materially false statement willfully or fraudulently made in connection with the bid or any of the forms completed and submitted with the bid may result in the termination of any Contract between the City and the Bidder. As a result, the Bidder may be barred from participating in future City contracts as well as be subject to possible criminal prosecution.

8. Examination and Viewing of Site, Consideration of Other Sources of Information and Changed Conditions

- (A) Pre-Bidding (Investigation) Viewing of Site Bidders must carefully view and examine the site of the proposed work, as well as its adjacent area, and seek other usual sources of information, for they will be conclusively presumed to have full knowledge of any and all conditions on, about or above the site relating to or affecting in any way the performance of the work to be done under the Contract which were or should have been indicated to a reasonably prudent bidder. To arrange a date for visiting the work site, bidders are to contact the Agency Contact person specified in The PASSPort RFx.
- (B) Should the contractor encounter during the progress of the work subsurface conditions at the site materially differing from any shown on the Contract Drawings or indicated in the Specifications or such subsurface conditions as could not reasonably have been anticipated by the contractor and were not anticipated by the City, which conditions will materially affect the cost of the work to be done under the Contract, the attention of the Commissioner must be called immediately to such conditions before they are disturbed. The Commissioner shall thereupon promptly investigate the conditions. If the Commissioner finds that they do so materially differ, or that they could not reasonably have been anticipated by the contractor and were not anticipated by the City, the Contract may be modified with the Commissioner's written approval.

9. Examination of Proposed Contract

- (A) <u>Request for Interpretation or Correction</u>: Prospective bidders must examine the Contract Documents carefully and before bidding must request the Commissioner in writing for an interpretation or correction of every patent ambiguity, inconsistency or error therein which should have been discovered by a reasonably prudent bidder. Such interpretation or correction, as well as any additional contract provisions the Commissioner may decide to include, will be issued in writing by the Commissioner as an addendum to the Contract, which will be transmitted to each person recorded as having received a copy of the Contract Documents from the Department. Transmission of such addendum will be by mail, e-mail, facsimile or hand delivery. Such addendum will also be posted at the place where the Contract Documents are available for the inspection of prospective bidders. Upon transmission as provided for herein, such addendum shall become a part of the Contract Documents, and binding on all bidders, whether or not actual notice of such addendum is shown.
- (B) <u>Only Commissioner's Interpretation or Correction Binding</u>: Only the written interpretation or correction so given by the Commissioner shall be binding, and prospective bidders are warned that no other officer, agent or employee of the City is authorized to give information concerning, or to explain or interpret, the Contract.
- (C) Documents given to a subcontractor for the purpose of soliciting the subcontractor's bid shall include either a copy of the bid cover sheet or a separate information sheet setting forth the project name, the Contract number (if available), the contracting agency and the Project's location.

<u>10.</u> Form of Bid

Each bid must be submitted upon the prescribed form and must contain: a) the name, residence and place of business of the person or persons making the same; b) the names of all persons interested therein, and if no other person is so interested, such fact must be distinctly stated; c) a statement to the effect that it is made without any connection with any other person making a bid for the same purpose and that it is in all respects fair and without collusion or fraud; d) a statement that no Council member or other officer or employee or person whose salary is payable in whole or part from the City Treasury is directly or indirectly interested therein or in the supplies, materials or equipment and work or labor to which it relates, or in any portion of the profits thereof; e) a statement that the bidder is not in arrears to the City or to any agency upon a debt or contract or taxes, and is not a defaulter as surety or otherwise upon any obligation to the City to any agency thereof, except as set forth in the bid.

THE BID SHALL BE TYPEWRITTEN OR WRITTEN LEGIBLY IN INK. THE BID SHALL BE SIGNED IN INK. ERASURES OR ALTERATIONS SHALL BE INITIALED BY THE SIGNER IN INK. FAILURE TO CONFORM TO THE REQUIREMENTS OF THIS SECTION 10 SHALL RESULT IN THE REJECTION OF THE BID.

11. Irrevocability of Bid

The prices set forth in the bid cannot be revoked and shall be effective until the award of the Contract, unless the bid is withdrawn as provided for in Sections 15 and 18 below.

<u>12.</u> <u>Acknowledgment of Amendments</u>

The receipt of any amendment to the Contract Documents shall be acknowledged by the bidder in its bid submission.

<u>13.</u> <u>Bid Samples and Descriptive Literature</u>

Bid samples and descriptive literature shall not be submitted by the bidder, unless expressly requested elsewhere in the Contract or Contract Documents. Any unsolicited bid samples or descriptive literature which are submitted shall not be examined or tested and shall not be deemed to vary any of the provisions of this Contract.

14. Proprietary Information/Trade Secrets

- (A) The bidder shall identify those portions of the bid which it deems to be confidential, proprietary information or trade secrets, and provide justification why such materials shall not be disclosed by the City. All such materials shall be clearly indicated by stamping the pages on which such information appears, at the top and bottom thereof with the word "Confidential". Such materials stamped "Confidential" must be easily separable from the non-confidential sections of the bid.
- (B) All such materials so indicated shall be reviewed by the Agency and any decision not to honor a request for confidentiality shall be communicated in writing to the bidder. For those bids which are unsuccessful, all such confidential materials shall be returned to the bidder. Prices, makes and model or catalog numbers of the items offered, deliveries, and terms of payment shall be publicly available after bid opening, regardless of any designation of confidentiality made by the bidder.

15. <u>Pre-Opening Modification or Withdrawal of Bids</u>

Bids may be modified or withdrawn by written notice received in the office designated in the PASSPort RFx, before the time and date set for the bid opening. If a bid is withdrawn in accordance with this Section, the bid security, if any, shall be returned to the bidder.

<u>16.</u> Bid Evaluation and Award

In accordance with the New York City Charter, the Procurement Policy Board Rules and the terms and conditions of this Invitation For Bids, this Contract shall be awarded, if at all, to the responsible bidder whose bid meets the requirements and evaluation criteria set forth in the Invitation For Bids, and whose bid price is either the most favorable bid price or, if the Invitation For Bids so states, the most favorable evaluated bid price. A bid may not be evaluated for any requirement or criterion that is not disclosed in the Invitation For Bids.

<u>Restriction</u>: No negotiations with any bidder shall be allowed to take place except under the circumstances and in the manner set forth in Section 21. Nothing in this Section shall be deemed to permit a contract award to a bidder submitting a higher quality item than that designated in the Invitation For Bids, if that bid is not also the most favorable bid.

17. Late Bids, Late Withdrawals and Late Modifications

Any bid received at the place designated in the solicitation after the time and date set for receipt of bids is late and shall not be considered. Any request for withdrawal or modification received at the place designated in the solicitation after the time and date set for receipt of bids is late and shall not be considered. The exception to this provision is that a late modification of a successful bid that makes the bid terms more favorable to the City shall be considered at any time it is received.

<u>18.</u> <u>Withdrawal of Bids.</u>

Except as provided for in Section 15, above, a bidder may not withdraw its bid before the expiration of forty-five (45) days after the date of the opening of bids; thereafter, a bidder may withdraw its bid only in writing and in advance of an actual award. If within sixty (60) days after the execution of the Contract, the Commissioner fails to fix the date

for commencement of work by written notice to the bidder, the bidder at the bidder's option, may ask to be relieved of the bidder's obligation to perform the work called for by written notice to the Commissioner. If such notice is given to the Commissioner, and the request to withdraw is granted, the bidder waives all claims in connection with this Contract.

<u>19.</u> <u>Mistake in Bids</u>

(A) <u>Mistake Discovered Before Bid Opening</u>: A bidder may correct mistakes discovered before the time and date set for bid opening by withdrawing or correcting the bid as provided in Section 15 above.

(B) Mistakes Discovered Before Award

- (1) In accordance with General Municipal Law (Section 103, subdivision 11), where a unilateral error or mistake is discovered in a bid, such bid may be withdrawn upon written approval of the Agency Chief Contracting Officer if the following conditions are met:
 - (a) The mistake is known or made known to the agency prior to the awarding of the Contract or within 3 days after the opening of the bid, whichever period is shorter; and
 - (b) The price bid was based upon an error of such magnitude that enforcement would be unconscionable; and
 - (c) The bid was submitted in good faith and the bidder submits credible evidence that the mistake was a clerical error as opposed to a judgment error; and
 - (d) The error in the bid is actually due to an unintentional and substantial arithmetic error or an unintentional omission of a substantial quantity of work, labor, material or services made directly in the compilation of the bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of the original work paper, documents, or materials used in the preparation of the bid sought to be withdrawn; and
 - (e) It is possible to place the agency in the same position as existed prior to the bid.
- (2) Unless otherwise required by law, the sole remedy for a bid mistake in accordance with this Article shall be withdrawal of the bid, and the return of the bid bond or other security, if any, to the bidder. Thereafter, the agency may, in its discretion, award the Contract to the next lowest bidder or rebid the Contract. Any amendment to or reformation of a bid or a Contract to rectify such an error or mistake therein is strictly prohibited.
- (3) If the mistake and the intended correct bid are clearly evident on the face of the bid document, the bid shall be corrected to the intended correct bid and may not be withdrawn. Examples of mistakes that may be corrected are typographical errors, errors in extending unit prices, transposition errors and arithmetical errors.

20. Low Tie Bids

- (A) When two or more low responsive bids from responsible bidders are identical in price, meeting all the requirements and criteria set forth in the Invitation For Bids, the Agency Chief Contracting Officer will break the tie in the following manner and order of priority:
 - (1) Award to a certified New York City small, minority or woman-owned business entity bidder;
 - (2) Award to a New York City bidder;
 - (3) Award to a certified New York State small, minority or woman-owned business bidder;
 - (4) Award to a New York State bidder.
- (B) If two or more bidders still remain equally eligible after application of paragraph (A) above, award shall be made by a drawing by lot limited to those bidders. The bidders involved shall be invited to attend the drawing. A witness shall be present to verify the drawing and shall certify the results on the bid tabulation sheet.

21. Rejection of Bids

- (A) <u>Rejection of Individual Bids</u>: The Agency may reject a bid if:
 - (1) The bidder fails to furnish any of the information required pursuant to Section 24 or 28 hereof; or if
 - (2) The bidder is determined to be not responsible pursuant to the Procurement Policy Board Rules; or if
 - (3) The bid is determined to be non-responsive pursuant to the Procurement Policy Board Rules; or if
 - (4) The bid, in the opinion of the Agency Chief Contracting Officer, contains unbalanced bid prices and is thus non-responsive, unless the bidder can show that the prices are not unbalanced for the probable required quantity of items, or if the imbalance is corrected pursuant to Section 15.
- (B) <u>Rejection of All Bids</u>: The Agency, upon written approval by the Agency Chief Contracting Officer, may reject all bids and may elect to resolicit bids if in its sole opinion it shall deem it in the best interest of the City so to do.
- (C) <u>Rejection of All Bids and Negotiation With All Responsible Bidders</u>: The Agency Head may determine that it is appropriate to cancel the Invitation For Bids after bid opening and before award and to complete the acquisition by negotiation. This determination shall be based on one of the following reasons:
 - (1) All otherwise acceptable bids received are at unreasonable prices, or only one bid is received and the Agency Chief Contracting Officer cannot determine the reasonableness of the bid price, or no responsive bid has been received from a responsible bidder; or
 - (2) In the judgment of the Agency Chief Contracting Officer, the bids were not independently arrived at in open competition, were collusive, or were submitted in bad faith.
- (B) When the Agency has determined that the Invitation for Bids is to be canceled and that use of negotiation is appropriate to complete the acquisition, the contracting officer may negotiate and award the Contract without issuing a new solicitation, subject to the following conditions:
 - prior notice of the intention to negotiate and a reasonable opportunity to negotiate have been given by the contracting officer to each responsible bidder that submitted a bid in response to the Invitation for Bids;
 - (2) the negotiated price is the lowest negotiated price offered by a responsible bidder; and
 - (3) the negotiated price is lower than the lowest rejected bid price of a responsible bidder that submitted a bid in response to the Invitation for Bids.

22. Right to Appeal Determinations of Non-Responsiveness or Non-Responsibility and Right to Protest Solicitations and Award

The bidder has the right to appeal a determination of non-responsiveness or non-responsibility and has the right to protest a solicitation and award. For further information concerning these rights, the bidder is directed to the Procurement Policy Board Rules.

23. Affirmative Action and Equal Employment Opportunity

This Invitation For Bids is subject to applicable provisions of Federal, State and Local Laws and executive orders requiring affirmative action and equal employment opportunity.

24. PASSPort COMPLIANCE

All vendors that intend to do business with the City of New York must complete a disclosure process in order to be considered for a contract. This disclosure process was formerly completed using Vendor Information Exchange System (VENDEX) paper-based forms. The City of New York has moved collection of vendor disclosure information online. In early August 2017, the New York City Mayor's Office of Contract Services (MOCS) launched the Procurement and Sourcing Solutions Portal (PASSPort), a new online procurement system that replaced the paper-VENDEX process. In anticipation of awards, all bidders must create online accounts in the new PASSPort system, and

file all disclosure information using PASSPort. Paper submissions, including certifications of no changes to existing VENDEX packages, will not be accepted in lieu of complete online filings using PASSPort.

All vendors that intend to do business with the City, but specifically those that fall into any of the following categories, are required to enroll:

- Have a pending award with a City Agency; or
- Hold a current contract with a City Agency and have either an expiring VENDEX or expiring Certificate of No Change.

The Department of Design and Construction (DDC) and MOCS hereby notifies all proposers that the PASSPort system is available, and that disclosure filing completion is required prior to any award through this competitive bid.

To enroll in PASSPort and to access the PASSPort website (including online training), please visit www.nyc.gov/passport. Contact MOCS at passport@mocs.nyc.gov for additional information and technical support.

25. Complaints About the Bid Process

The New York City Comptroller is charged with the audit of contracts in New York City. Any vendor who believes that there has been unfairness, favoritism or impropriety in the bid process should inform the Comptroller, Office of Contract Administration, One Centre Street, Room 835, New York, New York; telephone number (212)669-2323.

26. Bid, Performance and Payment Security

- (A) <u>Bid Security</u>: Each bid must be accompanied by bid security in an amount and type specified in the PASSPort RFx questionnaire. The bid security shall assure the City of New York of the adherence of the bidder to its proposal, the execution of the Contract, and the furnishing of Performance and Payment Bonds by the bidder, if required in the PASSPort RFx. Bid security shall be returned to the bidder as follows:
 - Within ten (10) days after the bid opening, the Comptroller will be notified to return the deposits of all but the three (3) lowest bidders. Within five (5) days after the award, the Comptroller will be notified to return the deposits of the remaining two unsuccessful bidders.
 - (2) Within five (5) days after the execution of the Contract and acceptance of the Contractor's bonds, the Comptroller will be notified to return the bid security of the successful bidder or, if performance and payment bonds are not required, only after the sum retained under Article 21 of the Contract equals the amount of the bid security.
 - (3) Where all bids are rejected, the Comptroller will be notified to return the deposit of the three (3) lowest bidders at the time of rejection.
- (B) <u>Performance and Payment Security</u>: Performance and Payment Security must be provided in an amount and type specified in the PASSPort RFx. The performance and payment security shall be delivered by the contractor prior to or at the time of execution of the Contract. If a contractor fails to deliver the required performance and payment security, its bid security shall be enforced, and an award of Contract may be made to the next lowest responsible and responsive bidder, or the contract may be rebid.
- (C) <u>Acceptable Types of Security</u>: Acceptable types of security for bids, performance, and payment shall be limited to the following:
 - (1) a one-time bond in a form satisfactory to the City;
 - (2) a bank certified check or money order;
 - (3) obligations of the City of New York; or
 - (4) other financial instruments as determined by the Office of Construction in consultation with the Comptroller.

Whenever the successful bidder deposits obligations of the City of New York as performance and payment security, the Comptroller may sell and use the proceeds thereof for any purpose for which the principal or

surety on such bond would be liable under the terms of the Contract. If the money is deposited with the Comptroller, the successful bidder shall not be entitled to receive interest on such money from the City.

(D) <u>Form of Bonds</u>: Security provided in the form of bonds must be prepared on the form of bonds authorized by the City of New York. Forms for bid, performance, and payment bonds are included in the Invitation for Bids Documents. Such bonds must have as surety thereunder such surety company or companies as are: (1) approved by the City of New York; (2) authorized to do business in the State of New York, and (3) approved by the Department of the Treasury of the United States. Premiums for any required bonds must be included in the base bid.

The bidder is advised that submission of a bid bond where the surety on such bond fails to meet the criteria set forth herein, shall result in the rejection of the bid as non-responsive.

The Department of the Treasury of the United States advises that information concerning approved surety companies may be obtained as follows: (1) from the Government Printing Office at 215-364-6465; (2) through the Internet at https://www.fiscal.treasury.gov/surety-bonds/.

(E) <u>Power of Attorney</u>: Attorneys in fact who sign bid, performance, or payment bonds must file with each bond a certified copy of their power of attorney to sign said bonds.

27. Failure to Execute Contract

In the event of failure of the successful bidder to execute the Contract and furnish the required security within ten (10) days after notice of the award of the Contract, the deposit of the successful bidder or so much thereof as shall be applicable to the amount of the award made shall be retained by the City, and the successful bidder shall be liable for and hereby agrees to pay on demand the difference between the price bid and the price for which such Contract shall be subsequently awarded, including the cost of any required releting and less the amount of such deposit. No plea of mistake in such accepted bid shall be available to the bidder for the recovery of the deposit or as a defense to any action based upon such accepted bid. Further, should the bidder's failure to comply with this Section cause any funding agency, body or group (Federal, State, City, Public, Private, etc.) to terminate, cancel or reduce the funding on this project, the bidder in such event shall be liable also to the City for the amount of actual funding withdrawn by such agency on this project, less the amount of the forfeited deposit.

28. Bidder Responsibilities and Qualifications

- (A) Bidders must include with their bids all information necessary for a determination of bidder responsibility, as set forth in the Specifications.
- (B) The Agency may require any bidder or prospective bidder to furnish all books of account, records, vouchers, statements or other information concerning the bidder's financial status for examination as may be required by the Agency to ascertain the bidder's responsibility and capability to perform the Contract. If required, a bidder must also submit a sworn statement setting forth such information as the Agency may require concerning present and proposed plant and equipment, the personnel and qualifications of the bidder's working organizations, prior experience and performance record.
- (C) <u>Oral Examination on Qualifications</u>: In addition thereto, and when directed by the Agency, the bidder, or a responsible officer, agent or employee of the bidder, must submit to an oral examination to be conducted by the Agency in relation to the bidder's proposed tentative plan and schedule of operations, and such other matters as the Agency may deem necessary in order to determine the bidder's ability and responsibility to perform the work in accordance with the Contract. Each person so examined must sign and verify a stenographic transcript of such examination noting thereon such corrections as such person may desire to make.
- (D) If the bidder fails or refuses to supply any of the documents or information set forth in paragraph (B) hereof or fails to comply with any of the requirements thereof, the Agency may reject the bid.

29. Employment Report

In accordance with Executive Order No. 50 (1980) as modified by Executive Order 108 (1986), the filing of a

completed Employment Report (ER) is a requirement of doing business with the City of New York for construction contractors with contracts of \$1,000,000 or more and subcontractors with construction subcontracts of \$750,000 or more. The required forms and information are included in the PASSPort Vendor Profile.

30. Labor Law Requirements

- (A) <u>General</u>: The successful bidder will be required to comply strictly with all Federal, State and local labor laws and regulations.
- (B) <u>New York State Labor Law</u>: This Contract is subject to New York State Labor Law Section 220, which requires that construction workers on the site be paid prevailing wages and supplements. The Contractor is reminded that all wage provisions of this Contract will be enforced strictly and failure to comply will be considered when evaluating performance. Noncompliance may result in the contractor being debarred by the City from future contracts. Complaints filed with the Comptroller may result in decisions which may debar a contractor from bidding contracts with any state governmental entity and other political subdivisions.
- (C) <u>Records:</u> The Contractor is expected to submit accurate payroll reports and other required documents and verify attendance and job classifications being utilized in compliance with the law, Contract provisions and agency procedures.

<u>31.</u> Insurance

- (A) Bidders are advised that the insurance requirements contained herein are regarded as material terms of the Contract. As required by Article 22 of the Contract, the contractor must effect and maintain with companies licensed and authorized to do business in the State of New York, the types of insurance set forth therein, when required by and in the amounts set forth in Schedule A of the General Conditions. Such required insurance must be provided from the date the contractor is ordered to commence work and up to the date of final acceptance of all required work.
- (B) The contractor must, within ten days of receipt of the notice of award, submit the following insurance documentation: (a) original certificate of insurance for general liability in the amount required by Schedule A of the General Conditions, and (b) original certificates of insurance or other proof of coverage for workers' compensation and disability benefits, as required by Section 57 of the New York State Workers' Compensation Law and Section 220 of the Disability Benefits Law.
- 32. Lump Sum Contracts
 - (A) <u>Comparison of Bids</u>: Bids on Lump Sum Contracts will be compared on the basis of the lump sum price bid, adjusted for alternate prices bid, if any.
 - (B) Lump Sum Bids for "General Construction Work" which include excavation shall include all necessary excavation work defined in the Specifications as being included in the lump sum bid. The bidder shall also bid a unit price for the additional cost of excavating material which is defined in the Specifications as excavation for which additional payment will be made. The total estimated additional cost of removing such material will be taken as the quantity set forth in the Engineer's Estimate multiplied by the unit price bid. This total estimated cost of additional excavation shall be added to the lump sum bid for the General Construction Work for the purpose of comparing bids to determine the low bidder.
 - (C) <u>Variations from Engineer's Estimate</u>: The Engineer's Estimate of the quantity of excavation for which additional payment will be made is approximate only and is given solely to be used as a uniform basis for the comparison of bids and such estimate is not to be considered as part of this contract. The quantities actually required to complete the contract work may be more or less than the quantities in the Engineer's Estimate and, if so, no action for damages or for loss of profits shall accrue to the contractor by reason thereof.

33. Unit Price Contracts

(A) <u>Comparison of Bids</u>: Bids on Unit Price Contracts will be compared on the basis of a total estimated price,

arrived at by taking the sum of the estimated quantities of such items, in accordance with the Engineer's Estimate of Quantities set forth in the Bid Schedule, multiplied by the corresponding unit prices, and including any lump sum bids on individual items.

- (B) <u>Variations from Engineer's Estimate</u>: Bidders are warned that the Engineer's Estimate of Quantities on the various items of work and materials is approximate only, given solely to be used as a uniform basis for the comparison of bids, and is not be considered part of this contract. The quantities actually required to complete the contract work may be less or more than so estimated, and if so, no action for damages or for loss of profits shall accrue to the contractor by reason thereof.
- (C) <u>Overruns</u>: The terms and conditions applicable to overruns of unit price items are set forth in Article 26 of the Contract.

34. Excise Tax

Bidders are referred to the Specifications for information on Federal Excise Tax exemptions.

35. Licenses and Permits

The successful bidder will be required to obtain all necessary licenses and permits necessary to perform the work.

<u>36.</u> <u>Multiple Prime Contractors</u>

If more than one prime contractor will be involved on this project, all contractors are required to examine the Invitation for Bid packages for all other parts of the project.

37. Locally Based Enterprise Requirements (LBE)

This Contract is subject to the requirements of Administrative Code, Section 6-108.1, and the regulations promulgated thereunder. No construction contract will be awarded unless and until these requirements have been complied with in their entirety. The bidder is advised of the provisions set forth below, as well as the provisions with respect to the Locally Based Enterprise Program contained in Article 67 of the Contract. The contractor is advised that:

- (A) If any portion of the Contract is subcontracted, not less than ten percent of the total dollar amount of the contract shall be awarded to locally based enterprises ("LBEs"); except, where less than ten percent of the total dollar amount of the Contract is subcontracted, such lesser percentage shall be so awarded.
- (B) No contractor shall require performance and payment bonds from LBE subcontractors.
- (C) No Contract shall be awarded unless the contractor first identifies in its bid:
 - (1) the percentage, dollar amount and type of work to be subcontracted; and
 - (2) the percentage, dollar amount and type of work to be subcontracted to LBEs.
- (D) Within ten calendar days after notification of low bid, the apparent low bidder shall submit an "LBE Participation Schedule" to the contracting agency. If such schedule does not identify sufficient LBE subcontractors to meet the requirements of Administrative Code Section 6-108.1, the apparent low bidder shall submit documentation of its good faith efforts to meet such requirements.
 - (1) The "LBE Participation Schedule" shall include:
 - (a) the name and address of each LBE that will be given a subcontract,
 - (b) the percentage, dollar amount and type of work to be subcontracted to the LBE, and
 - (c) the dates when the LBE subcontract work will commence and end.
 - (2) The following documents shall be attached to the "LBE Participation Schedule":
 - (a) verification letters from each subcontractor listed in the "LBE Participation Schedule" stating that the LBE will enter into a formal agreement for work,

- (b) certification documents of any proposed LBE subcontractor which is not on the LBE certified list, and
- (c) copies of the certification letter of any proposed subcontractor which is an LBE.
- (3) Documentation of good faith efforts to achieve the required LBE percentage shall include as appropriate but not limited to the following:
 - (a) attendance at prebid meetings, when scheduled by the agency, to advise bidders of contract requirements;
 - (b) advertisement where appropriate in general circulation media, trade association publications and small business media of the specific subcontracts that would be at least equal to the percentage goal for LBE utilization specified by the contractor;
 - (c) written notification to association of small, minority and women contractors soliciting specific subcontractors;
 - (d) written notification by certified mail to LBE firms that their interest in the contract is solicited for specific work items and their estimated values;
 - (e) demonstration of efforts made to select portions of the work for performance by LBE firms in order to increase the likelihood of achieving the stated goal;
 - (f) documented efforts to negotiate with LBE firms for specific subcontracts, including at a minimum:
 - (i) The names, address and telephone numbers of LBE firms that are contacted;
 - (ii) A description of the information provided to LBE firms regarding the plans and specifications for portions of the work to be performed;
 - (iii) Documentation showing that no reasonable price can be obtained from LBE firms;
 - (iv) A statement of why agreements with LBE firms were not reached;
 - (g) a statement of the reason for rejecting any LBE firm which the contractor deemed to be unqualified; and
 - (h) documentation of efforts made to assist the LBE firms contacted that needed assistance in obtaining required insurance.
- (E) Unless otherwise waived by the Commissioner with the approval of the Office of Economic and Financial Opportunity, failure of a proposed contractor to provide the information required by paragraphs (C) and (D) above may render the bid non-responsive and the Contract may not be awarded to the bidder. If the contractor states that it will subcontract a specific portion of the work, but can demonstrate despite good faith efforts it cannot achieve its required LBE percentage for subcontracted work until after award of Contract, the Contract may be awarded, subject to a letter of compliance from the contractor stating that it will comply with Administrative Code Section 6-108.1 and subject to approval by the Commissioner. If the contractor has not met its required LBE percentage prior to award, the contractor shall demonstrate that a good faith effort has been made subsequent to award to obtain LBEs on each subcontract until its meets the required percentage.
- (F) When a bidder indicates prior to award that no work will be subcontracted, no work may be subcontracted without the prior written approval of the Commissioner, which shall be granted only if the contractor in good faith seeks LBE subcontractors at least six weeks prior to the start of work.
- (G) The contractor may not substitute or change any LBE which was identified prior to award of the contract without the written permission of the Commissioner. The contractor shall make a written application to the Commissioner for permission to make such substitution or change, explaining why the contractor needs to change its LBE subcontractor and how the contractor will meet its LBE subcontracting requirement. Copies of such application must be served on the originally identified LBE by certified mail return receipt requested,

as well as the proposed substitute LBE. The Commissioner shall determine whether or not to grant the contractor's request for substitution.

<u>38.</u> <u>Bid Submission Requirements</u>

The Bid Submission Requirements are set forth in the PASSPort RFx.

<u>39.</u> <u>Comptroller's Certificate</u>

This Contract shall not be binding or of any force unless it is registered by the Comptroller in accordance with Section 328 of the City Charter and the Procurement Policy Board Rules. This Contract shall continue in force only after annual appropriation of funds by the City of New York and certification as hereinabove set forth.

40. Procurement Policy Board Rules

This Invitation For Bids is subject to the Rules of the Procurement Policy Board of the City of New York. In the event of a conflict between said Rules and a provision of this Invitation For Bids, the Rules shall take precedence.

41. DDC Safety Requirements

The DDC Safety Requirements apply to the work to be performed pursuant to the Contract. The DDC Safety Requirements are set forth on the following pages.

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CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION SAFETY REQUIREMENTS FOR CONSTRUCTION **CONTRACTS**

January 2020

THE DDC SAFETY REQUIREMENTS FOR CONSTRUCTION CONTRACTS INCLUDE THE **FOLLOWING SECTIONS:**

- I. POLICY ON SITE SAFETY
- II. PURPOSE

DDC

- **III. DEFINITIONS**
- **IV. RESPONSIBILITIES**
- V. SAFETY QUESTIONNAIRE
- VI. SITE SAFETY PLAN
- VII. KICK-OFF/PRE-CONSTRUCTION MEETINGS AND SAFETY REVIEW
- **VIII. EVALUATION DURING WORK IN PROGRESS**
- IX. SAFETY PERFORMANCE EVALUATION

I. POLICY ON SITE SAFETY

The City of New York Department of Design and Construction (DDC) is committed to a policy of injury and illness prevention and risk management for construction work that will ensure the safety and health of the workers engaged in the projects and the protection of the general public. Therefore, it is DDC's policy that work carried out by Contractors on DDC contracts must, at a minimum, comply with the most current versions of all applicable federal, state and city laws, rules, and regulations, including without limitation:

- □ Code of Federal Regulations, Title 29, Part 1926 (29 CFR 1926) and applicable Sub-parts of Part 1910 U.S. Occupational Safety and Health Administration (OSHA);
- □ Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD);
- New York Codes, Rules and Regulations (NYCRR), Title 12, Part 23 Protection in Construction, Demolition and Excavation Operations;
- □ New York Codes, Rules and Regulations (NYCRR), Title 16, Part 753 Protection of Underground Facilities;
- □ New York City Administrative Code, Title 28 New York City Construction Codes;
- Rules of the City of New York, Title 15, Chapter 13 Rules Pertaining To the Prevention of the Emission of Dust from Construction Related Activities;
- □ Rules of the City of New York, Title 15, Chapter 28 Citywide Construction Noise Mitigation;
- □ Rules of the City of New York, Title 34 Chapter 2 NYCDOT Highway Rules.

The Contractor will be required to comply with all new and/or revised federal, state and city laws, rules, and regulations, issued during the course of the project, at the expense of the Contractor without any additional costs to the DDC.

II. PURPOSE

The purpose of this policy is to ensure that Contractors perform their work and supervise their employees in accordance with all applicable federal, state and city rules and regulations. Further, Contractors will be expected to minimize or eliminate jobsite and public hazards, through a planning, inspection, auditing and corrective action process. The goal is to control risks so that injuries, illnesses, and accidents to contractors' employees, DDC employees and the general public, as well as damage to city-owned and private property, are reduced to the lowest level feasible.

III. DEFINITIONS

Agency Chief Contracting Officer (ACCO): The ACCO will mean the person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the City Chief Procurement Officer (CCPO).

Competent Person: As defined by OSHA, an individual who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees or the general public, and who has authorization to take prompt corrective measures to eliminate them. This individual will have completed, at a minimum an authorized 30-hour OSHA Construction Safety Course. The Contractor may be required to provide more than one competent person due to construction operations and based on the number of active work sites.

Construction Safety Auditor: A representative of the Office of Construction Safety who provides inspection and assessment services to enhance health and safety on all DDC construction projects. The activities of the Construction Safety Auditor include performing site audits, reviewing safety plans, reviewing construction permits, drawings, verifying Contractor's compliance with applicable federal, state and city laws, rules, regulations, and DDC Contract Safety Requirements, etc. and rendering technical advice and assistance to DDC Resident Engineers and Project Managers.

CITY OF NEW YORK	SAFETY REQUIREMENTS FOR	CONSTRUCTION CONTRACTS
DDC	2	JANUARY 2020

Office of Construction Safety: A unit of DDC Safety and Site Support that assesses contractor's safety on DDC jobsites and advises responsible parties of needed corrective actions.

Registered Construction Superintendent: For certain projects, as defined in New York City Construction Codes -Title 28, the contractor will provide a Construction Superintendent registered with the NYC Department of Buildings and responsible for all duties as defined in Chapter 33 of Title 1 of the Rules of the City of New York.

Contractor: For purposes of these Safety Requirements, the term "Contractor" will mean any person or entity that enters into a contract for the performance of construction work on a DDC project. The term "Contractor" will include any person or entity which enters into any of the following types of contracts: (1) a prime construction contract for a specific project, (2) a prime construction contract using the Job Order Contracting System ("JOCS Contract"), and (3) a subcontract with a CM/Builder ("First Tier Subcontract").

Daily Safety Job Briefing: Daily jobsite safety briefings, given to all jobsite personnel at project site by the Contractor before work begins and/or if hazards or potential hazards are discovered while working, with the purpose of discussing the scheduled activities for the day, the hazards related to these activities, activity specific safety procedures, and Job Hazard Analysis associated with the scheduled construction work. Daily jobsite briefings will be documented, available at the jobsite, and will include at a minimum, topics, name and signature of the person conducting the briefing session, names and signatures of attendants, name of the designated competent person, contactor's name, DDC Project ID, date, time, and location.

Director - Office of Construction Safety: Responsible for the operations of the Office of Construction Safety and the DDC Site Safety management programs.

Job Hazard Analysis (JHA): A process of identifying the major job tasks and any potential site-specific hazards that may be present during construction and establishing the means and methods to eliminate or control those hazards. A JHA will be documented, available at the jobsite and will include at a minimum work tasks, being performed, identified hazards, control methods for the identified hazards, contractor's name, DDC Project ID, location, date, name and signature of certifying person. A JHA is a living document that will be re-evaluated and revised to address new hazards and tasks that may develop and will be present at the worksite and produced upon request.

Qualified Person: As defined by OSHA, an individual who, by possession of a recognized degree, certificate, license, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve problems relating to the subject matter, the work, or the project. Qualified Persons are required under regulation to address issues pertaining, but without limit, to fall protection, scaffold design, maintenance and protection of traffic, and excavation protective system, among others.

Project Site: Those areas indicated in the Contract Documents where the Work is to be performed.

Project Safety Representative: The designated Project Safety Representative will have at a minimum an OSHA 30-hour Construction Safety Course and other safety training applicable to Contractor's/subcontractor's project work. This individual will be responsible to oversee safety performance of the required construction work, conduct documented daily safety inspections, and implement corrective actions to maintain a safe work site. The Project Safety Representative must have sufficient experience and skills necessary to thoroughly understand the health and safety hazards and controls and must have authority to undertake corrective actions. A dedicated full-time Project Safety Representative may be required on large projects and projects deemed by DDC to be particularly high risk. DDC reserves the right to request a dedicated full-time Project Safety Representative for any reason at any time during the course of the project at the expense of the Contractor without any additional costs to the DDC. The fulltime Project Safety Representative will be present at the site during all work activities.

Resident Engineer ("RE"): Representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the work. The RE may be a consultant retained by DDC, including a Construction Management (CM) or Resident Engineer Inspection (REI) firm. If DDC has retained a CM, REI or other consultant firm to perform management and oversite for the Project (e.g., CM-Builder, CM-Design-Builder, Project Manager, Program Manager), that CM, REI or other consultant is the Resident Engineer for purposes of these Safety Requirements.

Safety Questionnaire: Used by DDC to evaluate Contractor's current and past safety performance. It is required to be completed by all Contractors initially when submitting bids for Construction work, or when being pre-qualified

and updated annually or as requested by the DDC.

Site Safety Manager: For certain projects, as defined in New York City Construction Codes – Title 28, the Contractor will provide a Site Safety Manager with a Site Safety Manager License issued by the New York City Department of Building.

Site Safety Plan: A site-specific safety plan developed by the Contractor for a DDC project. The Site Safety Plan will identify the project work scope, identify hazards associated with the project work and include project specific safety procedures and training appropriate and necessary to complete the work. The Site Safety Plan will be submitted within 30 days from the Award Date or as otherwise directed and is subject to review and acceptance by the Office of Construction Safety prior to the commencement of work at the site.

Unsafe or Unhealthy Condition: A condition that could be potentially hazardous to the health and safety of personnel or the public, and/or damaging to equipment, machinery, property, or the environment.

Weekly Safety Meetings: Weekly jobsite safety meetings, given to all jobsite personnel by Contractor, with the purpose of discussing general safety topics and job specific requirements encountered at the DDC work site. Weekly safety meetings will be documented and will include at a minimum, topics, name and signature of the person conducting the meeting, names and signatures of attendees, contractor's name, DDC Project ID, date, and location.

Work: The construction required by the Contractor's Contract Documents whether completed or partially completed, performed by the Contractor/ subcontractors. Work refers to the furnishing of labor, furnishing and incorporating materials and equipment into the construction and providing any service required by the Contract Documents to fulfill the Contractor's obligation to complete the Project. For the purposes of these Safety Requirements, the term "Work" includes all Utility Interference work (commonly referred to as "Section U", "EP-7", and "Joint Bid" work) performed in association with this Contract.

IV. RESPONSIBILITIES

All persons who manage, perform, and provide support for construction projects will conduct operations in compliance with the requirements identified in this Policy and all applicable governing regulatory agency requirements and guidelines pertaining to safety in construction.

A. Resident Engineer

- 1. Review and facilitate Contractor(s) Site Safety Plan submittals to DDC for acceptability.
- 2. Notify the Office of Construction Safety of the commencement of construction work.
- 3. Develop and implement a training verification process to ensure that all CM/REI, consultant, Contractor, and subcontractor employees are properly trained. Maintain all applicable initial and refresher training records and assures documentation availability on site.
- 4. Maintain documentation of and attend weekly safety meetings and daily safety job briefings.
- 5. Assure that Contractor(s) JHA's are current to reflect the work tasks being performed, hazards, and control methods to mitigate the identified hazards. Verify that all employees at the job site are trained on the JHAs and maintain supporting documentation on site.
- 6. Assure adequate planning for all critical construction activities (crane operation, excavation, confined space entry, etc.) including coordination between Contractor(s) /DDC/ other Agencies as required.
- 7. Maintain custody of all construction related permits, plans, approvals, drawings, etc., related to the project and assure their availability on site.
- 8. Recognize, minimize, or eliminate jobsite and public hazards, through required planning, inspection, verification, and corrective action process.
- 9. Monitor the conditions at the site for conformance with the Contractor's Site Safety Plan, DDC policies, permits, and all applicable regulations and documentation that pertain to construction safety.
- 10. Notify the Contractor and DDC immediately upon determination of any condition or activity existing which is not in compliance with the Contractor's Site Safety Plan, applicable federal, state or local codes or any

CITY OF NEW YORK	SAFETY REQUIREMENTS FOR	R CONSTRUCTION CONTRACTS
DDC	4	JANUARY 2020

condition that presents a potential risk of injury to the public or workers or possible damage to property. Direct the Contractor to provide such labor, materials, equipment, and supervision to remedy such conditions.

- 11. Notify the Office of Construction Safety and the ACCO's Insurance and Risk Management Unit of projectrelated accidents, incidents, and near misses as per DDC's Construction Safety Emergency and Accident Notification and Response Procedure within two (2) hours.
- 12. In case of an accident, incident, or near miss, RE is responsible to protect the integrity of the accident site including but not limited to: the safeguarding of all evidence, documentation of all personnel on site at the time of the accident, gather facts related to all accidents, incidents, or near miss, and prepare required DDC Construction Accident Report as per DDC's Construction Safety Emergency and Accident Notification and Response Procedure. Maintain all records pertaining to accidents, incidents, and near miss and have them available upon request.
- 13. Notify the Office of Construction Safety within two (2) hours of the start of an inspection by any outside/ regulatory agency personnel, including NYS, OSHA, NYC DOB or any other City/State/Federal oversight entity and forward a copy of the inspection report within one business day of its receipt.
- 14. Escort and assist Construction Safety Auditors during all field and record audits.
- 15. Report any emergency conditions to the Office of Construction Safety immediately.

Note: In addition to the responsibilities listed above, if the Resident Engineer is a CM/REI or other non-City party hired by the City to manage the Project, the Resident Engineer is also required to do the following:

- 16. Provide personnel who are certified and or trained appropriately for the requirements of the project.
- 17. Perform an investigation for any project-related accidents, incidents, and near misses. Within 24-hours of the time of the accident, incident, or near miss, the CM/REI will submit an investigation report to the Office of Construction Safety. Such report will include proposed remedial measures and implementation of corrective actions to prevent recurrence.

DDC reserves the right to request that the CM/REI replace any CM/REI personnel for any reason at any time during the project.

B. Construction Contractors

Note: For CM-Build and CM-Design-Build Projects, the CM will meet all requirements listed in this section, as well as the Resident Engineer section above.

- 1. Submit a completed Safety Questionnaire and other safety performance related documentation with its bid or as part of a pre-qualification package.
- 2. Submit a Site Safety Plan within 30 days from the Award Date or as otherwise directed. The Site Safety Plan is subject to review and acceptance by the Office of Construction Safety prior to the commencement of work at the site. The Site Safety Plan will be revised and updated as necessary during the course of the project. If requested by the Office of Construction Safety, the Site Safety Plan must be developed and submitted for approval using a web-based system, the Site Safety Plan Application (SSP App).
- 3. Designate and identify a Project Safety Representative in the Site Safety Plan. The Contractor will immediately notify the Office of Construction Safety, in a form and manner acceptable to the Office of Construction Safety, of any permanent change to the designated Project Safety Representative. In the event the primary designated Project Safety Representative will be provided. Resumes, outlining the qualification and experience for the Project Safety Representative (s) will be included in the Site Safety Plan and available upon request. DDC reserves the right to request the Contractor to replace a Project Safety Representative for any reason at any time during the course of the project.
- 4. Designate and identify a Competent Person(s) in the Site Safety Plan. Contractor/subcontractor may be required to provide more than one competent person due to construction operations and based on a number of work tasks/areas. DDC reserves the right to request the Contractor to replace a Competent Person or provide additional Competent Person(s) for any reason at any time during the course of the project. The Competent Person will be present at the site during all work activities.
- 5. For certain projects, as defined in New York City Construction Codes Title 28, designate and identify the Licensed Site Safety Manager or Registered Construction Superintendent. Resumes, outlining the qualification and experience for the Licensed Site Safety Manager or Registered Construction Superintendent will be included in the Site Safety Plan and available upon request. The Contractor will immediately notify the Office

CITY OF NEW YORK DDC of Construction Safety, in a form and manner acceptable to the Office of Construction Safety, of any permanent change to the designated Site Safety Manager and/or Construction Superintendent. In the event the primary designated Site Safety Manager or Construction Superintendent is temporarily unable to perform his or her duties, an alternate Licensed Site Safety Manager and/or Registered Construction Superintendent will be provided. The Office of Construction Safety must be informed of such change. DDC reserves the right to request the Contractor to replace Site Safety Manager or Construction Superintendent for any reason at any time during the course of the project.

- Develop a written Job Hazard Analysis (JHA) that identifies safety hazards and control methods for project 6. specific work tasks. A preliminary JHA will be included in the Site Safety Plan submitted by the Contractor. A JHA is a living document that will be re-evaluated and revised to address new hazards and tasks that may develop during the course of the project and will be present at the worksite and produced upon request.
- Develop project specific safety procedures to protect employees, general public, and property during all 7. construction activities for the duration of the project.
- Ensure that all employees are aware of the hazards associated with the project through documented formal and 8. informal training and/or other communications. Conduct and document new employee and site-specific safety orientation for all Contractor and subcontractor personnel to review the hazards associated with the project as identified in the Site Safety Plan and the specific safety procedures and controls that will be used to protect workers, the general public and property. The Project Safety Representative will conduct this training prior to mobilization and if necessary during the course of the project. Documentation will be provided to the RE.
- Prior to performing any work on DDC projects all Contractor's and subcontractor's employees will, at a 9. minimum, have successfully completed, within the previous five calendar years, an OSHA 10-hour construction safety course.

All training records (OSHA 10-hour, flagger, scaffold, fall protection, confined space, etc.) will be provided to the RE prior to mobilization, included in the Site Safety Plan, kept current during the course of the project, and available for review.

- 10. Conduct and document weekly safety meetings and daily job briefing sessions for the duration of the project. Attendance at weekly safety meetings and daily job briefing sessions is mandatory. A written record of weekly safety meetings will be available upon request and job briefing sessions will be available at the worksite.
- 11. As part of the Site Safety Plan, prepare site specific procedures, such as maintenance and protection of traffic plan, steel erection plan, confined space program, fall protection plan, demolition plan, site specific emergency evacuation plan, etc. (if not otherwise provided in the contract documents) and comply with all of its provisions.
- 12. Have immediately available for review at the project site where actual construction activities are being performed all applicable documentation, including but not limited to: JHAs for work tasks being performed, all required training records, MPT plan (where applicable), Noise and Dust Mitigation Plans, excavation protective system drawings (where applicable), Emergency Evacuation plan, fall protection program (where applicable), confined space program (where applicable), all required permits, daily job briefing records, all required documentation for crane operation (where applicable), daily inspection checklist, scaffold and sidewalk drawings (when applicable), safety data sheets for chemicals in use.
- 13. Comply with all federal, state and local safety and health rules, laws, and regulations.
- 14. Comply with all provisions of the Site Safety Plan.
- 15. Provide, replace, and adequately maintain at or around the project site, suitable and sufficient signage, lights, barricades and enclosures (fences, sidewalk sheds, netting, bracing, etc.). The project specific MPT plan will be developed, implemented, and reviewed during the course of the project.
- 16. The Project Safety Representative will conduct daily safety inspections, document the inspection results, implement corrective actions for the identified hazards. Maintain the inspection records and have them available upon request.
- 17. Report unsafe or unhealthy conditions to the RE as soon as practical, but no more than 24 hours after discovery, and take prompt actions to remove or abate such conditions. Should an imminent dangerous condition be discovered, Contractor will stop all work in the area of danger until corrections are made.
- 18. Report all accidents, incidents and near misses involving injuries to workers or the general public, as well as property damage, to the RE within one (1) hour.
- 19. Following an accident or incident, unless otherwise directed, the Contractor will not remove or alter any equipment, structure, material, or evidence related to the accident or incident. Exception: Immediate emergency procedures taken to secure structures, temporary construction, operations, or equipment that pose a continued imminent danger or facilitate assistance for persons who are trapped or who have sustained bodily injury. Take

CITY OF NEW YORK DDC

SAFETY REQUIREMENTS FOR CONSTRUCTION CONTRACTS JANUARY 2020 6

additional measures as necessary to secure the accident or incident site and to protect against any further injury or property damage.

- 20. The Contractor will perform an investigation into the root cause of the accident, incident, or near miss. Within 24 hours of an accident, incident, or near miss, the Contractor will prepare and submit to the RE a written investigation report detailing findings, corrective actions, and hazard mitigation implementation to prevent recurrence.
- 21. Notify the RE within two (2) hours of the start of an inspection by any outside regulatory agency personnel, including OSHA, NYC DOB, or others.
- 22. Maintain all records pertaining to all required safety compliance documents, accidents and incidents reports. DDC reserves the right to request copy of any records pertaining to the safety of the project and required by DDC and other federal, state, and city agencies, including but not limited to permits, training records, safety inspection records, drawings, equipment records, etc.
- 23. Cooperate with DDC Office of Construction Safety/ RE and address DDC recommendations on safety, which will in no way relieve the Contractor of its responsibilities for safety on the project. The Contractor has sole responsibility for safety.

V. SAFETY QUESTIONNAIRE

DDC requires that all Contractors provide information regarding their current and past safety performance and programs. This will be accomplished by the use of the DDC Safety Questionnaire. As a part of the bid submittal package, the contractor will submit a completed DDC Safety Questionnaire listing company workers' compensation experience modification rating and OSHA Incident Rates for the three (3) years prior to the date of the bid opening. DDC may request a Contractor to update its Questionnaire at any time or to provide more detailed information. The Contractor will provide the requested information within 15 days.

The following criteria will be used by DDC in reviewing the Contractor's responsibility, which will be based on the information provided on the questionnaire:

- Criteria 1: OSHA Injury and Illness Rates (I&IR) are no greater than the average for the industry (based on the most current Bureau of Labor Statistics data for the Contractors SIC code); and
- Criteria 2: Insurance workers compensation Experience Modification Rate (EMR) equal to or less than 1.0; and
- Criteria 3: Any willful violations issued by OSHA or NYC DOB within the last three (3) years; and
- A fatality (worker or member of public) and injuries, requiring OSHA notification, experienced on or Criteria 4: near Contractor's worksite within the last three (3) years; and
- Criteria 5: Past safety performance on DDC projects (accidents; status of site safety plan submittals; etc.)
- Criteria 6: OSHA violation history for the last three (3) years;
- Contractor will provide OSHA Injury and Illness Records (currently OSHA 300 and 300A Logs) for Criteria 7: the last three (3) years.

If the Contractor fails to meet the basic criteria listed above, the Office of Construction Safety may request, through the ACCO, more details concerning the Contractor's safety experience. DDC may request the Contractor to provide copies of, among other things, accident investigation reports, OSHA records, OSHA and NYC DOB citations, EPA citations and written corrective action plan.

VI. SITE SAFETY PLAN

Within thirty (30) days from the Award Date or as otherwise directed, the Contractor will submit the Site Safety Plan. The Site Safety Plan will identify project work scope, safety hazards associated with the project tasks, and include specific safety procedures and training appropriate and necessary to complete the work. The Site Safety Plan is subject to review and acceptance by the Office of Construction Safety prior to the commencement of work at the site. Due to the project work scope and project duration, the Office of Construction Safety may grant a conditional acceptance for a Site Safety Plan without all sections being complete. In a case of a "Conditional Acceptance" of a Site Safety Plan, SAFETY REQUIREMENTS FOR CONSTRUCTION CONTRACTS CITY OF NEW YORK DDC 7 JANUARY 2020

the Contractor will provide the remaining sections previously incomplete and/or not submitted for review and acceptance by the Office of Construction Safety prior to the commencement of the construction activities. The Office of Construction Safety reserves the right to withdraw the initial "Conditional Acceptance" if the Contractor fails to provide the remaining sections of a Site Safety Plan. Failure by the Contractor to submit an acceptable Site Safety Plan will be grounds for default.

<u>Site Safety Plan requirements</u>: The Site Safety Plan will be a written document and will apply to all project specific Contractor and subcontractor operations, and will have at a minimum, the following elements with each described in a separate section (It may be necessary to modify the basic format for certain unique or high-risk projects, such as tunnels or high-rise construction). All Site Safety Plan sections will be numbered in the order listed below. For sections, which are not applicable for the type of the work being performed by the Contractor on DDC project, the Contractor will in writing indicate "Not applicable based on the project work scope." The Site Safety Plan will include Contractor's name, DDC project ID, project location (s), and development and revision dates. The Site Safety Plan will include the sections, attachments, and appendixes provided in the Site Safety Plan. All pages of the Site Safety Plan will be numbered. If requested by the Office of Construction Safety, the Site Safety Plan must be developed and submitted for approval using a web-based system, the Site Safety Plan Application (SSP App).

- 1. Project Work Scope Detailed information regarding work tasks that will be performed by Contractor and subcontractors under the project.
- 2. Responsibility and Organization Contractor's organization chart with responsible personnel for the project, including titles, names, contact information, roles, and responsibilities. All Contractor's personnel required by the DDC Safety Requirements will be identified.
- 3. Safety Training and Education OSHA 10 Hours training, requirements for daily safety briefings and weekly safety meetings, any work task specific training, responsible staff for implementation of training program for the project.
- 4. Job Hazard Analysis (JHA) Project specific Job Hazard Analysis including work tasks, identified hazards, hazard control methods (administrative, engineering, PPE) to protect workers, property and general public, Contractor's name, project id, location, name and signature of a certifying person, hazard assessment date.
- 5. Protection of Public Project specific procedures covering safety of the general public during all project construction activities.
- 6. Hazard Corrective Actions Procedures for hazard identification, including responsible person(s), frequency of safety inspections, implementation of corrective actions, safety inspection checklist.
- Accident/Exposure Investigation Project specific procedures for accident/incident/near miss investigation and implementation of corrective actions. Accident/incident/near miss notification procedure of DDC project staff (timer frame and responsible personnel).
- 8. Recording and Reporting Injuries Procedures to meet 29 CFR 1904 requirements.
- 9. First Aid and Medical Attention Responsible staff, location and inspection of First Aid kit, directions to local hospitals; emergency telephone numbers.
- 10. Project Specific Fire Protection and Prevention Program Project specific procedures, including responsible staff, fire alarm system/methods, hot work procedures, etc.
- 11. Housekeeping Procedure.
- 12. Project Specific Illumination Procedure.
- 13. Project Specific Sanitation Procedure.
- 14. Personal Protective Equipment (PPE), including Respiratory Protection Program and Hearing Conservation Program, if required.
- 15. Hazard Communication Program Contractor's Hazard Communication Program, responsible staff; training; SDS records, project specific list of chemicals; location of the program and SDS records.
- 16. Means of Egress Information regarding free and unobstructed egress from all parts of the building or structure; exit marking; maintenance of means of egress, etc.
- 17. Employee Emergency Action Plan Project specific: responsible staff, emergency alarm system/devices, evacuation procedure, procedure to account for employees after evacuation, etc.
- 18. Evacuation Plan Project specific evacuation plan (drawing/scheme) with exists and evacuation routes.
- 19. Ionizing/Nonionizing Radiation Competent person, license and qualification requirements, type of radiation, employee's exposure and protection, safety procedures, etc.

CITY OF NEW YORK	SAFETY REQUIREMENTS FOR	CONSTRUCTION CONTRACTS
DDC	8	JANUARY 2020

- 20. Material Handling, Storage, Use and Disposal Project specific information regarding material storage, disposal, and handling: procedures, plan/drawings, etc.
- 21. Signs, Signals, and Barricades Use of danger/warning signs, safety instruction signs, sidewalk closure and pedestrian fencing and barricades (if not included in the MPT plan), etc.
- 22. Tools Hand and Power Safety procedures for the type of tools to be used.
- 23. Scaffold Project specific scaffold types, procedures, training requirements, scaffold drawings, designed, sealed, and signed by NYS Licensed Professional Engineer, or as otherwise directed; competent person, criteria for project specific scaffold, falling object protection, procedures for aerial lifts/scissor lifts.
- 24. Welding and Cutting Project specific procedure for welding and cutting, including all necessary safety requirements such as fire prevention, personal protective equipment, hot work permits (if not covered by Contractor's Fire Prevention and Protection program, FDNY certificate requirements).
- 25. Electrical Safety Project specific procedures, including lock out-tag out.
- 26. Fall Protection Project specific information regarding selected fall protection systems, fall protection plan, responsible staff.
- 27. Cranes, Derrick, Hoists, Elevators, Conveyors project specific equipment information including type, rated load capacity, manufacture specification requirements, competent person, exposure to falling load, inspection, recordkeeping, clearance requirements, communication procedure, ground lines, permits.
- 28. Excavation Safety Competent person; excavation procedures; project specific protective system, including drawings, designed, sealed, and signed by NYS Licensed Professional Engineer, or as otherwise directed.
- 29. Protection of Underground Facilities and Utilities Procedure, including responsible staff and responsibilities.
- 30. Concrete and Masonry Construction Procedures
- 31. Maintenance and Protection of Traffic Plan Project specific MPT plan, designed, sealed, and signed by NYS Licensed Professional Engineer, or as otherwise directed; flagmen training, public safety, etc.
- 32. Steel Erection Site specific erection plan, requirements for applicable written notifications, competent person, fall protection plan, training requirements, etc.
- 33. Demolition Engineering survey, including written evidence, disconnection of all effected utilities, identification of all hazardous chemicals, materials, gases, etc., floor openings, chutes, inspection and maintenance of all stairs/passageways, removal of materials/debris/structural elements, lock out/tag out, competent person.
- 34. Blasting and the Use of Explosives Project specific safety procedures, warning signs, training/qualification, transportation, storage and use of explosives, inspection.
- 35. Stairways and Ladders Types of stairs and ladders, safety procedures, training requirements.
- 36. Alcohol and Drug Abuse Policy
- 37. Rodents and Vermin Controls
- 38. Toxic and Hazardous Substances Safety procedures for substances that Contractor's and subcontractor's employees can be exposed on project.
- 39. Noise Mitigation Plan Completed project specific Noise Mitigation Plan, and noise mitigation procedures.
- 40. Confined Space Program Project specific Confined Space Program, responsible staff, training records, equipment information, rescue procedure, list of project specific confined spaces, forms.
- 41. Construction Vehicles/Heavy Equipment Type of construction vehicles/heavy equipment to be used on site, procedures
- 42. Dust Mitigation Plan Completed project specific Dust Mitigation Plan, and dust mitigation procedures.
- 43. Working Over and Near Water. Diving Operations safety procedures including personal protective equipment, fall protection, rescue services, etc.

The most critical component of the Site Safety Plan is the Job Hazard Analysis (JHA) section. The JHA form is a written document prepared by the Contractor. The Contractor will conduct a site and task assessment to identify the tasks and any potential safety or environmental hazards related to performance of the work, eliminate or implement controls for the potential hazards, and identify proper personal protective equipment for the task. The JHA will be communicated to all Contractor/subcontractor personnel on site. The JHA will include safety hazard identification and controls to protect employees, general public, and property.

The initial JHA will be included in the Contractor's Site Safety Plan and the current JHA form will be available at the construction site for reference. A JHA is a living document that will be re-evaluated and revised to address new hazards and tasks that may develop and will be present at the worksite and produced upon request.

CITY OF NEW YORK	SAFETY REQUIREMENTS FOR	CONSTRUCTION CONTRACTS
DDC	9	JANUARY 2020

VII. KICK-OFF MEETINGS/PRE-CONSTRUCTION AND SAFETY REVIEW

Prior to the start of construction activities on all DDC projects, RE will invite the Office of Construction Safety to the construction kick-off meeting. The Office of Construction Safety representative(s) will participate in this meeting with the Contractor and RE for the purpose of:

- A. Reviewing DDC Contract Safety Requirements
- B. Reviewing site-specific safety issues based on a project work scope, location, and any other factors which may impact safety of workers and general public.
- C. Reviewing the Site Safety Plan and JHA requirements.
- D. Reviewing Accident/Incident reporting and investigation procedures.
- E. Reviewing designated safety contacts, roles, and responsibilities.
- F. Discussing planned inspections and audits of the site by the Office of Construction Safety personnel.

VIII. **EVALUATION DURING WORK IN PROGRESS**

The Contractor's adherence to these Safety Requirements will be monitored throughout the project. This will be accomplished by the following:

- Use of a safety checklist by a representative of the Office of Construction Safety (or other designated DDC A. representative) and the RE during regular inspections and comprehensive audits of the job site. Field Exit Conferences will be held with the RE and Contractor Project Safety Representatives.
- The RE will continually monitor the safety and environmental performance of the Contractor's employees B. and work methods. Deficiencies will be brought to the attention of the Contractor's Project Safety Representative on site for immediate correction. The RE will maintain a written record of these deficiencies and have these records available upon request. Any critical deficiencies will be immediately reported to the Office of Construction Safety via telephone (718)391-1911.
- C. If the Contractor's safety performance during the project is not up to DDC standards (safety performance measure, accident/incident rate, etc.) the Director - Office of Construction Safety, or his/her designee will meet with the Contractor's Project Safety Representative and other representatives, the RE, and the DDC Environmental Specialist (if environmental issues are involved). The purpose of this meeting is to 1) determine the level of non-compliance; 2) explain and clarify the safety/environmental provisions; 3) agree on a future course of action to correct the deficiencies.
- D. If the deficiencies continue, the Commissioner may, without limitation, declare the Contractor in default.
- The Contractor will within 1 hour inform the RE of all accidents/incidents/near misses including all fatalities, E. any injuries to employees or members of the general public, and property damage (e.g., structural damage, equipment rollovers, utility damage, loads dropped from crane). The RE will notify the Office of Construction Safety as per DDC's Construction Safety Emergency and Accident Notification and Response Procedure and will maintain a record of all Contractor accidents/incidents for the project.
- F. The Contractor and the RE will notify the Office of Construction Safety within two (2) hours of the start of any NYS-DOL/ NYC-COSH/ OSHA/ EPA inspections.

IX. SAFETY PERFORMANCE EVALUATION

The Contractor's safety record, including accident/incident history and DDC safety inspection results, will be considered as part of the Contractor's performance evaluation at the conclusion of the project. Poor safety performance during the course of the project will be a reason to rate a Contractor unsatisfactory which may be reflected in the City's PASSPort system and will be considered for future procurement actions as set forth in the City's Procurement Policy Board Rules.

RIDER TO NEW YORK CITY STANDARD CONSTRUCTION CONTRACT (MARCH 2017) REGARDING NON-COMPENSABLE DELAYS AND GROUNDS FOR EXTENSION

The following provisions supersede the corresponding provisions in the March 2017 version of the New York City Standard Construction Contract:

1. Section **11.5.1** provides as follows:

11.5.1 The acts or omissions of public or government bodies (other than **City** agencies) or of any third parties who are disclosed in the **Contract Documents**, or those third parties who are ordinarily encountered or who are generally recognized as related to the **Work**, including but not limited to, **Other Contractors**, utilities or private enterprises;

2. Section **11.5.6** provides as follows:

11.5.6 Climatic conditions, storms, floods, droughts, tidal waves, fires, hurricanes, earthquakes, landslides or other catastrophes or acts of God; acts of war or of the public enemy or terrorist acts; disruption, outage or power failure caused by a utility's inability or failure to provide service, pandemics, epidemics, outbreaks of infectious disease or any other public health emergency; other states of emergency declared by the City, State or Federal government , quarantine restrictions, and freight embargoes; including the **City's** reasonable responses to any of the above; and

3. Section 13.3 provides as follows:

13.3 Grounds for Extension: If such application is made, the **Contractor** shall be entitled to an extension of time for delay in completion of the **Work** caused solely:

13.3.1 By any of the acts or omissions of the **City**, its officials, agents or employees set forth in Articles **11.4.1.1** through **11.4.1.9**; or

13.3.2 By or attributable to any of the items set forth in Articles 11.5.1 through 11.5.7.

13.3.3 The **Contractor** shall, however, be entitled to an extension of time for such causes only for the number of **Days** of delay which the **ACCO** or the Board may determine to be due solely to such causes, and then only if the **Contractor** shall have strictly complied with all of the requirements of Articles 9 and 10.

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CITY OF NEW YORK

STANDARD CONSTRUCTION CONTRACT

March 2017

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CITY OF NEW YORK STANDARD CONSTRUCTION CONTRACT

TABLE OF CONTENTS

CHAPTER I: THE CONTRACT AND DEFINITIONS	1
ARTICLE 1. THE CONTRACT	1
ARTICLE 2. DEFINITIONS	
CHAPTER II: THE WORK AND ITS PERFORMANCE	4
ARTICLE 3. CHARACTER OF THE WORK	
ARTICLE 4. MEANS AND METHODS OF CONSTRUCTION	4
ARTICLE 5. COMPLIANCE WITH LAWS	5
ARTICLE 6. INSPECTION	10
ARTICLE 7. PROTECTION OF WORK AND OF PERSONS AND PROPERTY; NOTICES AND	
INDEMNIFICATION	
CHAPTER III: TIME PROVISIONS	
ARTICLE 8. COMMENCEMENT AND PROSECUTION OF THE WORK	
ARTICLE 9. PROGRESS SCHEDULES	
ARTICLE 10. REQUESTS FOR INFORMATION OR APPROVAL	13
ARTICLE 11. NOTICE OF CONDITIONS CAUSING DELAY AND DOCUMENTATION OF	
DAMAGES CAUSED BY DELAY	14
ARTICLE 12. COORDINATION WITH OTHER CONTRACTORS	
ARTICLE 13. EXTENSION OF TIME FOR PERFORMANCE	
ARTICLE 14. COMPLETION AND FINAL ACCEPTANCE OF THE WORK	21
ARTICLE 15. LIQUIDATED DAMAGES ARTICLE 16. OCCUPATION OR USE PRIOR TO COMPLETION	23
CHAPTER IV: SUBCONTRACTS AND ASSIGNMENTS	
ARTICLE 17. SUBCONTRACTS AND ASSIGNMENTS	
ARTICLE 18. ASSIGNMENTS	
CHAPTER V: CONTRACTOR'S SECURITY AND GUARANTEE	
ARTICLE 19. SECURITY DEPOSIT	
ARTICLE 20. PAYMENT GUARANTEE ARTICLE 21. RETAINED PERCENTAGE	
ARTICLE 21. RETAINED PERCENTAGE ARTICLE 22. INSURANCE	
ARTICLE 22. INSURANCE ARTICLE 23. MONEY RETAINED AGAINST CLAIMS	
ARTICLE 23. MONEY RETAINED AGAINST CLAIMS	
CHAPTER VI: CHANGES, EXTRA WORK, AND DOCUMENTATION OF CLAIM	
ARTICLE 25. CHANGES.	
ARTICLE 25. CHANGES ARTICLE 26. METHODS OF PAYMENT FOR OVERRUNS AND EXTRA WORK	
ARTICLE 20. METHODS OF LATMENT FOR OVERRONS AND EATRA WORK	
ARTICLE 27. RESOLUTION OF DISTURES	
MATERIALS BASIS	
ARTICLE 29. OMITTED WORK	
ARTICLE 30. NOTICE AND DOCUMENTATION OF COSTS AND DAMAGES; PRODUCTION (
FINANCIAL RECORDS	
CHAPTER VII: POWERS OF THE RESIDENT ENGINEER, THE ENGINEER OR ARCHITECT A	AND
THE COMMISSIONER	
ARTICLE 31. THE RESIDENT ENGINEER	
ARTICLE 32. THE ENGINEER OR ARCHITECT OR PROJECT MANAGER	
ARTICLE 33. THE COMMISSIONER	
ARTICLE 34. NO ESTOPPEL	
CHAPTER VIII: LABOR PROVISIONS	
ARTICLE 35. EMPLOYEES	
ARTICLE 36. NO DISCRIMINATION	
ARTICLE 37. LABOR LAW REQUIREMENTS	

DDC

ARTICLE 38. PAYROLL REPORTS	64
ARTICLE 39. DUST HAZARDS	
CHAPTER IX: PARTIAL AND FINAL PAYMENTS	65
ARTICLE 40. CONTRACT PRICE	
ARTICLE 41. BID BREAKDOWN ON LUMP SUM	
ARTICLE 42. PARTIAL PAYMENTS	65
ARTICLE 43. PROMPT PAYMENT	
ARTICLE 44. SUBSTANTIAL COMPLETION PAYMENT	
ARTICLE 45. FINAL PAYMENT	67
ARTICLE 46. ACCEPTANCE OF FINAL PAYMENT	68
ARTICLE 47. APPROVAL BY PUBLIC DESIGN COMMISSION	
CHAPTER X: CONTRACTOR'S DEFAULT	
ARTICLE 48. COMMISSIONER'S RIGHT TO DECLARE CONTRACTOR IN DEFAULT	
ARTICLE 49. EXERCISE OF THE RIGHT TO DECLARE DEFAULT	
ARTICLE 50. QUITTING THE SITE	
ARTICLE 51. COMPLETION OF THE WORK	
ARTICLE 52. PARTIAL DEFAULT	
ARTICLE 53. PERFORMANCE OF UNCOMPLETED WORK	
ARTICLE 54. OTHER REMEDIES	
CHAPTER XI: MISCELLANEOUS PROVISIONS	
ARTICLE 55. CONTRACTOR'S WARRANTIES	
ARTICLE 56. CLAIMS AND ACTIONS THEREON	
ARTICLE 57. INFRINGEMENT	
ARTICLE 58. NO CLAIM AGAINST OFFICIALS, AGENTS OR EMPLOYEES	
ARTICLE 59. SERVICE OF NOTICES	
ARTICLE 60. UNLAWFUL PROVISIONS DEEMED STRICKEN FROM CONTRACT	
ARTICLE 61. ALL LEGAL PROVISIONS DEEMED INCLUDED	
ARTICLE 62. TAX EXEMPTION	
ARTICLE 63. INVESTIGATION(S) CLAUSE	
ARTICLE 64. TERMINATION BY THE CITY ARTICLE 65. CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE	
ARTICLE 65. CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE ARTICLE 66. PARTICIPATION IN AN INTERNATIONAL BOYCOTT	
ARTICLE 60. PARTICIPATION IN AN INTERNATIONAL BOYCOTT ARTICLE 67. LOCALLY BASED ENTERPRISE PROGRAM	
ARTICLE 67. LOCALLY BASED ENTERPRISE PROGRAM	
ARTICLE 00. ANTITRUST ARTICLE 69. MACBRIDE PRINCIPLES PROVISIONS	
ARTICLE 07. MACDRIDE TRIVEILLES TROVISIONS	
ARTICLE 70. ELECTRONIC FIENOANCE DEVELOTIONENT HOD	
ARTICLE 72. CONFLICTS OF INTEREST	
ARTICLE 72. CONTINE IS OF INTEREST	
ARTICLE 73. MERGER CLAUSE ARTICLE 74. STATEMENT OF WORK	
ARTICLE 74. STATEMENT OF WORK	
ARTICLE 76. ELECTRONIC FUNDS TRANSFER	
ARTICLE 77. RECORDS RETENTION	
ARTICLE 78. EXAMINATION AND VIEWING OF SITE, CONSIDERATION OF OTHER S	OURCES
OF INFORMATION AND CHANGED SITE CONDITIONS	

SIGNATURES	95
ACKNOWLEDGMENT BY CORPORATION	96
ACKNOWLEDGMENT BY PARTNERSHIP	96
ACKNOWLEDGMENT BY INDIVIDUAL	96
	-
AUTHORITY	
COMPTROLLER'S CERTIFICATE	
MAYOR'S CERTIFICATE	
PERFORMANCE BOND #1	
PERFORMANCE BOND #2	104
PAYMENT BOND	108

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WITNESSETH:

The parties, in consideration of the mutual agreements contained herein, agree as follows:

CHAPTER I: THE CONTRACT AND DEFINITIONS

ARTICLE 1. THE CONTRACT

1.1 Except for titles, subtitles, headings, running headlines, tables of contents and indices (all of which are printed herein merely for convenience), the following, except for such portions thereof as may be specifically excluded, shall be deemed to be part of this **Contract**:

1.1.1 All provisions required by law to be inserted in this **Contract**, whether actually inserted or not;

1.1.2 The Contract Drawings and Specifications;

1.1.3 The General Conditions and Special Conditions, if any;

1.1.4 The Contract;

1.1.5 The Information for Bidders; Request for Proposals; Notice of Solicitation and Proposal For Bids; Bid or Proposal, and, if used, the Bid Booklet;

1.1.6 All Addenda issued prior to the receipt of the bids; the Notice of Award; Performance and Payment Bonds, if required; and the Notice to Proceed or the Order to Work.

1.2 Should any conflict occur in or between the Drawings and Specifications, the **Contractor** shall be deemed to have estimated the most expensive way of doing the **Work**, unless the **Contractor** shall have asked for and obtained a decision in writing from the **Commissioner** of the **Agency** that is entering into this **Contract**, before the submission of its bid, as to what shall govern.

ARTICLE 2. DEFINITIONS

2.1 The following words and expressions, or pronouns used in their stead, shall, wherever they appear in this Contract, be construed as follows, unless a different meaning is clear from the context:

2.1.1 "Addendum" or "Addenda" shall mean the additional Contract provisions and/or technical clarifications issued in writing by the Commissioner prior to the receipt of bids.

2.1.2 "Agency" shall mean a city, county, borough or other office, position, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the City treasury.

2.1.3 "Agency Chief Contracting Officer" (ACCO) shall mean a person delegated authority by the Commissioner to organize and supervise the procurement activity of subordinate Agency staff in conjunction with the CCPO, or his/her duly authorized representative.

1

2.1.4 "Allowance" shall mean a sum of money which the Agency may include in the total amount of the Contract for such specific contingencies as the Agency believes may be necessary to complete the Work, *e.g.*, lead or asbestos remediation, and for which the Contractor will be paid on the basis of stipulated unit prices or a formula set forth in the Contract or negotiated between the parties provided, however, that if the Contractor is not directed to use the Allowance, the Contractor shall have no right to such money and it shall be deducted from the total amount of the Contract.

2.1.5 "City" shall mean the City of New York.

2.1.6 "City Chief Procurement Officer" (CCPO) shall mean a person delegated authority by the Mayor to coordinate and oversee the procurement activity of Mayoral agency staff, including the ACCO and any offices which have oversight responsibility for the procurement of construction, or his/her duly authorized representative.

2.1.7 **"Commissioner"** shall mean the head of the Agency that has entered into this Contract, or his/her duly authorized representative.

2.1.8 **"Comptroller"** shall mean the Comptroller of the City of New York.

2.1.9 **"Contract"** or **"Contract Documents"** shall mean each of the various parts of the contract referred to in Article 1 hereof, both as a whole and severally.

2.1.10 **"Contract Drawings"** shall mean only those drawings specifically entitled as such and listed in the Specifications or in any Addendum, or any drawings furnished by the Commissioner, pertaining or supplemental thereto.

2.1.11 **"Contract Work"** shall mean everything required to be furnished and done by the Contractor by any one or more of the parts of the Contract referred to in Article 1, except Extra Work as hereinafter defined.

2.1.12 **"Contractor"** shall mean the entity which executed this Contract, whether a corporation, firm, partnership, joint venture, individual, or any combination thereof, and its, their, his/her successors, personal representatives, executors, administrators, and assigns, and any person, firm, partnership, joint venture, individual, or corporation which shall at any time be substituted in the place of the Contractor under this Contract.

2.1.13 "Days" shall mean calendar days, except where otherwise specified.

2.1.14 "Engineer" or "Architect" or "Project Manager" shall mean the person so designated in writing by the Commissioner in the Notice to Proceed or the Order to Work to act as such in relation to this Contract, including a private Architect or Engineer or Project Manager, as the case may be. Subject to written approval by the Commissioner, the Engineer, Architect or Project Manager may designate an authorized representative.

2.1.15 **"Engineering Audit Officer" (EAO)** shall mean the person so designated by the Commissioner to perform responsible auditing functions hereunder.

2.1.16 **"Extra Work"** shall mean Work other than that required by the Contract at the time of award which is authorized by the Commissioner pursuant to Chapter VI of this Contract.

2.1.17 **"Federal-Aid Contract"** shall mean a contract in which the United States (federal) Government provides financial funding as so designated in the Information for Bidders.

2.1.18 **"Final Acceptance"** shall mean final written acceptance of all the Work by the Commissioner, a copy of which shall be sent to the Contractor.

2.1.19 **"Final Approved Punch List"** shall mean a list, approved pursuant to Article 14.2.2, specifying those items of Work to be completed by the Contractor after Substantial Completion and dates for the completion of each item of Work.

2.1.20 **"Law"** or **"Laws"** shall mean the Constitution of the State of New York, the New York City Charter, the New York City Administrative Code, a statute of the United States or of the State of New York, a local law of the City of New York, any ordinance, rule or regulation having the force of law, or common law.

2.1.21 "**Materialman**" shall mean any corporation, firm, partnership, joint venture, or individual, other than employees of the Contractor, who or which contracts with the Contractor or any Subcontractor, to fabricate or deliver, or who actually fabricates or delivers, plant, materials or equipment to be incorporated in the Work.

2.1.22 **"Means and Methods of Construction"** shall mean the labor, materials, temporary structures, tools, plant, and construction equipment, and the manner and time of their use, necessary to accomplish the result intended by this Contract.

2.1.23"**Notice to Proceed**" or "Order to Work" shall mean the written notice issued by the Commissioner specifying the time for commencement of the Work and the Engineer, Architect or Project Manager.

2.1.24 **"Other Contractor(s)"** shall mean any contractor (other than the entity which executed this Contract or its Subcontractors) who or which has a contract with the City for work on or adjacent to the building or Site of the Work.

2.1.25 **"Payroll Taxes"** shall mean State Unemployment Insurance (SUI), Federal Unemployment Insurance (FUI), and payments pursuant to the Federal Insurance Contributions Act (FICA).

2.1.26 "**Project**" shall mean the public improvement to which this Contract relates.

2.1.27 **"Procurement Policy Board" (PPB)** shall mean the Agency of the City of New York whose function is to establish comprehensive and consistent procurement policies and rules which shall have broad application throughout the City.

2.1.28 **"Required Quantity"** in a unit price Contract shall mean the actual quantity of any item of Work or materials which is required to be performed or furnished in order to comply with the Contract.

2.1.29 **"Resident Engineer"** shall mean the representative of the Commissioner duly designated by the Commissioner to be his/her representative at the site of the Work.

2.1.30 "Site" shall mean the area upon or in which the Contractor's operations are carried on, and such other areas adjacent thereto as may be designated as such by the Engineer.

2.1.31 **"Small Tools"** shall mean items that are ordinarily required for a worker's job function, including but not limited to, equipment that ordinarily has no licensing, insurance or substantive storage costs associated with it; such as circular and chain saws, impact drills, threaders, benders, wrenches, socket tools, etc.

2.1.32 **"Specifications"** shall mean all of the directions, requirements, and standards of performance applying to the Work as hereinafter detailed and designated under the Specifications.

2.1.33 **"Subcontractor"** shall mean any person, firm or corporation, other than employees of the Contractor, who or which contracts with the Contractor or with its subcontractors to furnish, or actually furnishes labor, or labor and materials, or labor and equipment, or superintendence, supervision and/or management at the Site. Wherever the word Subcontractor appears, it shall also mean sub-Subcontractor.

2.1.34 **"Substantial Completion"** shall mean the written determination by the Engineer that the Work required under this Contract is substantially, but not entirely, complete and the approval of the **Final Approved Punch List**.

2.1.35 **"Work"** shall mean all services required to complete the Project in accordance with the Contract Documents, including without limitation, labor, material, superintendence, management, administration, equipment, and incidentals, and obtaining any and all permits, certifications and licenses as may be necessary and required to complete the Work, and shall include both Contract Work and Extra Work.

CHAPTER II: THE WORK AND ITS PERFORMANCE

ARTICLE 3. CHARACTER OF THE WORK

3.1 Unless otherwise expressly provided in the **Contract Drawings**, **Specifications**, and **Addenda**, the **Work** shall be performed in accordance with the best modern practice, utilizing, unless otherwise specified in writing, new and unused materials of standard first grade quality and workmanship and design of the highest quality, to the satisfaction of the **Commissioner**.

ARTICLE 4. MEANS AND METHODS OF CONSTRUCTION

4.1 Unless otherwise expressly provided in the Contract Drawings, Specifications, and Addenda, the Means and Methods of Construction shall be such as the Contractor may choose; subject, however, to the Engineer's right to reject the Means and Methods of Construction proposed by the Contractor which in the opinion of the Engineer:

- 4.1.1 Will constitute or create a hazard to the Work, or to persons or property; or
- 4.1.2 Will not produce finished Work in accordance with the terms of the Contract; or
- 4.1.3 Will be detrimental to the overall progress of the **Project**.

4.2 The Engineer's approval of the Contractor's Means and Methods of Construction, or his/her failure to exercise his/her right to reject such means or methods, shall not relieve the Contractor

4

of its obligation to complete the **Work** as provided in this **Contract**; nor shall the exercise of such right to reject create a cause of action for damages.

ARTICLE 5. COMPLIANCE WITH LAWS

5.1 The **Contractor** shall comply with all **Laws** applicable to this **Contract** and to the **Work** to be done hereunder.

5.2 Procurement Policy Board Rules: This **Contract** is subject to the Rules of the **PPB** ("**PPB** Rules") in effect at the time of the bid opening for this **Contract**. In the event of a conflict between the **PPB** Rules and a provision of this **Contract**, the **PPB** Rules shall take precedence.

5.3 Noise Control Code provisions.

5.3.1 In accordance with the provisions of Section 24-216(b) of the Administrative Code of the **City** ("Administrative Code"), Noise Abatement Contract Compliance, devices and activities which will be operated, conducted, constructed or manufactured pursuant to this **Contract** and which are subject to the provisions of the **City** Noise Control Code shall be operated, conducted, constructed without causing a violation of the Administrative Code. Such devices and activities shall incorporate advances in the art of noise control development for the kind and level of noise emitted or produced by such devices and activities, in accordance with regulations issued by the **Commissioner** of the **City** Department of Environmental Protection.

5.3.2 The **Contractor** agrees to comply with Section 24-219 of the Administrative Code and implementing rules codified at 15 Rules of the City of New York ("RCNY") Section 28-100 et seq. In accordance with such provisions, the Contractor, if the Contractor is the responsible party under such regulations, shall prepare and post a Construction Noise Mitigation Plan at each Site, in which the Contractor shall certify that all construction tools and equipment have been maintained so that they operate at normal manufacturers operating specifications. If the Contractor cannot make this certification, it must have in place an Alternative Noise Mitigation Plan approved by the City Department of Environmental Protection. In addition, the Contractor's certified Construction Noise Mitigation Plan is subject inspection by the City Department of Environmental Protection in accordance with Section 28-101 of Title 15 of RCNY. No Contract Work may take place at a Site unless there is a Construction Noise Mitigation Plan or approved Alternative Noise Mitigation Plan in place. In addition, the Contractor shall create and implement a noise mitigation training program. Failure to comply with these requirements may result in fines and other penalties pursuant to the applicable provisions of the Administrative Code and RCNY.

5.4 Ultra Low Sulfur Diesel Fuel: In accordance with the provisions of Section 24-163.3 of the Administrative Code, the **Contractor** specifically agrees as follows:

5.4.1 Definitions. For purposes of this Article 5.4, the following definitions apply:

5.4.1(a) "Contractor" means any person or entity that enters into a Public Works Contract with a **City Agency**, or any person or entity that enters into an agreement with such person or entity, to perform work or provide labor or services related to such Public Works Contract.

5.4.1(b) "Motor Vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway.

5.4.1(c) "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under Section 7411 or Section 7521 of Title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.4.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty (50) horsepower and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers, and similar equipment, except that this term shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five (65) horsepower or less and that are not used in any construction program or project.

5.4.1(e) "Public Works Contract" means a contract with a **City Agency** for a construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; a contract with a **City Agency** for the preparation for any construction program or project involving the construction, demolition, restoration, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge; or a contract with a **City Agency** for any final work involved in the completion of any construction program or project involving the construction, repair, renovation, rehabilitation, repair, renovation, or abatement of any building, structure, tunnel, excavation, roadway, park or bridge.

5.4.1(f) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million (15 ppm).

5.4.2 Ultra Low Sulfur Diesel Fuel

5.4.2(a) All **Contractors** shall use Ultra Low Sulfur Diesel Fuel in diesel-powered Nonroad Vehicles in the performance of this **Contract**.

5.4.2(b) Notwithstanding the requirements of Article 5.4.2(a), **Contractors** may use diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) to fulfill the requirements of this Article 5.4.2, where the Commissioner of the **City** Department of Environmental Protection ("DEP Commissioner") has issued a determination that a sufficient quantity of Ultra Low Sulfur Diesel Fuel is not available to meet the needs of **Agencies** and **Contractors**. Any such determination shall expire after six (6) months unless renewed.

5.4.2(c) **Contractors** shall not be required to comply with this Article 5.4.2 where the **City Agency** letting this **Contract** makes a written finding, which is approved, in writing, by the DEP Commissioner, that a sufficient quantity of Ultra Low Sulfur Diesel Fuel, or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) is not available to meet the requirements of Section 24-163.3 of the Administrative Code, provided that such **Contractor** in its fulfillment of the

requirements of this **Contract**, to the extent practicable, shall use whatever quantity of Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm) is available. Any finding made pursuant to this Article 5.4.2(c) shall expire after sixty (60) **Days**, at which time the requirements of this Article 5.4.2 shall be in full force and effect unless the **City Agency** renews the finding in writing and such renewal is approved by the DEP Commissioner.

5.4.2(d) **Contractors** may check on determinations and approvals issued by the DEP Commissioner pursuant to Section 24-163.3 of the Administrative Code, if any, at <u>www.dep.nyc.gov</u> or by contacting the **City Agency** letting this **Contract**.

5.4.2(e) The requirements of this Article 5.4.2 do not apply where they are precluded by federal or State funding requirements or where the **Contract** is an emergency procurement.

5.4.3 Best Available Technology

5.4.3(a) All **Contractors** shall utilize the best available technology for reducing the emission of pollutants for diesel-powered Nonroad Vehicles in the performance of this **Contract**. For determinations of best available technology for each type of diesel-powered Nonroad Vehicle, **Contractors** shall comply with the regulations of the **City** Department of Environmental Protection, as and when adopted, Chapter 14 of Title 15 of the Rules of the City of New York (RCNY). The **Contractor** shall fully document all steps in the best available technology selection process and shall furnish such documentation to the **City Agency** or the DEP Commissioner upon request. The **Contractor** shall retain all documentation generated in the best available technology selection process for as long as the selected best available technology is in use.

5.4.3(b) No **Contractor** shall be required to replace best available technology for reducing the emission of pollutants or other authorized technology utilized for a diesel-powered Nonroad Vehicle in accordance with the provisions of this Article 5.4.3 within three (3) years of having first utilized such technology for such vehicle.

5.4.3(c) This Article 5.4.3 shall not apply to any vehicle used to satisfy the requirements of a specific Public Works Contract for fewer than twenty (20) **Days**.

5.4.3(d) The **Contractor** shall not be required to comply with this Article 5.4.3 with respect to a diesel-powered Nonroad Vehicle under the following circumstances:

5.4.3(d)(i) Where the **City Agency** makes a written finding, which is approved, in writing, by the DEP Commissioner, that the best available technology for reducing the emission of pollutants as required by this Article 5.4.3 is unavailable for such vehicle, the **Contractor** shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle.

5.4.3(d)(ii) Where the DEP Commissioner has issued a written waiver based upon the **Contractor** having demonstrated to the DEP Commissioner that the use of the best available technology for reducing the emission of pollutants might endanger the operator of such vehicle or those working near such vehicle, due to engine malfunction, the **Contractor** shall use whatever technology for reducing the emission of pollutants, if any, is available and appropriate for such vehicle, which would not endanger the operator of such vehicle or those working near such vehicle.

5.4.3(d)(iii) In determining which technology to use for the purposes of Articles 5.4.3(d)(i) and 5.4.3(d)(i) above, the **Contractor** shall primarily consider the reduction in emissions of particulate matter and secondarily consider the reduction in emissions of nitrogen oxides associated with the use of such technology, which shall in no event result in an increase in the emissions of either such pollutant.

5.4.3(d)(iv) The **Contractor** shall submit requests for a finding or a waiver pursuant to this Article 5.4.3(d) in writing to the DEP Commissioner, with a copy to the **ACCO** of the **City Agency** letting this **Contract**. Any finding or waiver made or issued pursuant to Articles 5.4.3(d)(i) and 5.4.3(d)(ii) above shall expire after one hundred eighty (180) **Days**, at which time the requirements of Article 5.4.3(a) shall be in full force and effect unless the **City Agency** renews the finding, in writing, and the DEP Commissioner approves such finding, in writing, or the DEP Commissioner renews the waiver, in writing.

5.4.3(e) The requirements of this Article 5.4.3 do not apply where they are precluded by federal or State funding requirements or where the **Contract** is an emergency procurement.

5.4.4 Section 24-163 of the Administrative Code. The **Contractor** shall comply with Section 24-163 of the Administrative Code related to the idling of the engines of motor vehicles while parking.

5.4.5 Compliance

5.4.5(a) The **Contractor's** compliance with Article 5.4 may be independently monitored. If it is determined that the **Contractor** has failed to comply with any provision of Article 5.4, any costs associated with any independent monitoring incurred by the **City** shall be reimbursed by the **Contractor**.

5.4.5(b) Any **Contractor** who violates any provision of Article 5.4, except as provided in Article 5.4.5(c) below, shall be liable for a civil penalty between the amounts of one thousand (\$1,000) and ten thousand (\$10,000) dollars, in addition to twice the amount of money saved by such **Contractor** for failure to comply with Article 5.4.

5.4.5(c) No **Contractor** shall make a false claim with respect to the provisions of Article 5.4 to a **City Agency**. Where a **Contractor** has been found to have done so, such **Contractor** shall be liable for a civil penalty of twenty thousand (\$20,000) dollars, in addition to twice the amount of money saved by such **Contractor** in association with having made such false claim.

5.4.6 Reporting

5.4.6(a) For all Public Works Contracts covered by this Article 5.4, the **Contractor** shall report to the **City Agency** the following information:

5.4.6(a)(i) The total number of diesel-powered Nonroad Vehicles used to fulfill the requirements of this Public Works Contract;

5.4.6(a)(ii) The number of such Nonroad Vehicles that were powered by Ultra Low Sulfur Diesel Fuel;

5.4.6(a)(iii) The number of such Nonroad Vehicles that utilized the best available technology for reducing the emission of pollutants, including a breakdown by vehicle model and the type of technology;

5.4.6(a)(iv) The number of such Nonroad Vehicles that utilized such other authorized technology in accordance with Article 5.4.3, including a breakdown by vehicle model and the type of technology used for each such vehicle;

5.4.6(a)(v) The locations where such Nonroad Vehicles were used; and

5.4.6(a)(vi) Where a determination is in effect pursuant to Article 5.4.2(b) or 5.4.2(c), detailed information concerning the **Contractor's** efforts to obtain Ultra Low Sulfur Diesel Fuel or diesel fuel that has a sulfur content of no more than thirty parts per million (30 ppm).

5.4.6(b) The **Contractor** shall submit the information required by Article 5.4.6(a) at the completion of **Work** under the Public Works Contract and on a yearly basis no later than August 1 throughout the term of the Public Works Contract. The yearly report shall cover **Work** performed during the preceding fiscal year (July 1 - June 30).

5.5 Ultra Low Sulfur Diesel Fuel. In accordance with the Coordinated Construction Act for Lower Manhattan, as amended:

5.5.1 Definitions. For purposes of this Article 5.5, the following definitions apply:

5.5.1(a) "Lower Manhattan" means the area to the south of and within the following lines: a line beginning at a point where the United States pierhead line in the Hudson River as it exists now or may be extended would intersect with the southerly line of West Houston Street in the Borough of Manhattan extended, thence easterly along the southerly side of West Houston Street to the southerly side of Houston Street, thence easterly along the southerly side of Houston Street, to the southerly side of East Houston Street, thence northeasterly along the southerly side of East Houston Street to the point where it would intersect with the United States pierhead line in the East River as it exists now or may be extended, including tax lots within or immediately adjacent thereto.

5.5.1(b) "Lower Manhattan Redevelopment Project" means any project in Lower Manhattan that is funded in whole or in part with federal or State funding, or any project intended to improve transportation between Lower Manhattan and the two air terminals in the **City** known as LaGuardia Airport and John F. Kennedy International Airport, or between Lower Manhattan and the air terminal in Newark known as Newark Liberty International Airport, and that is funded in whole or in part with federal funding.

5.5.1(c) "Nonroad Engine" means an internal combustion engine (including the fuel system) that is not used in a Motor Vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under Section 7411 or Section 7521 of Title 42 of the United States Code, except that this term shall apply to internal combustion engines used to power generators, compressors or similar equipment used in any construction program or project.

5.5.1(d) "Nonroad Vehicle" means a vehicle that is powered by a Nonroad Engine, fifty (50) horsepower (HP) and greater, and that is not a Motor Vehicle or a vehicle used solely for competition, which shall include, but not be limited to, excavators, backhoes, cranes, compressors, generators, bulldozers, and similar equipment, except that this terms shall not apply to horticultural maintenance vehicles used for landscaping purposes that are powered by a Nonroad Engine of sixty-five (65) HP or less and that are not used in any construction program or project.

5.5.1(e) "Ultra Low Sulfur Diesel Fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million (15 ppm).

5.5.2 Requirements. **Contractors** and **Subcontractors** are required to use only Ultra Low Sulfur Diesel Fuel to power the diesel-powered Nonroad Vehicles with engine HP rating of fifty (50) HP and above used on a Lower Manhattan Redevelopment Project and, where practicable, to reduce the emission of pollutants by retrofitting such Nonroad Vehicles with oxidation catalysts, particulate filters, or technology that achieves lowest particulate matter emissions.

5.6 Pesticides. In accordance with Section 17-1209 of the Administrative Code, to the extent that the **Contractor** or any **Subcontractor** applies pesticides to any property owned or leased by the **City**, the **Contractor**, and any **Subcontractor** shall comply with Chapter 12 of the Administrative Code.

5.7 Waste Treatment, Storage, and Disposal Facilities and Transporters. In connection with the **Work**, the **Contractor** and any **Subcontractor** shall use only those waste treatment, storage, and disposal facilities and waste transporters that possess the requisite license, permit or other governmental approval necessary to treat, store, dispose, or transport the waste, materials or hazardous substances.

5.8 Environmentally Preferable Purchasing. The **Contractor** shall ensure that products purchased or leased by the **Contractor** or any **Subcontractor** for the **Work** that are not specified by the **City** or are submitted as equivalents to a product specified by the **City** comply with the requirements of the New York City Environmentally Preferable Purchasing Program contained in Chapter 11 of Title 43 of the RCNY, pursuant to Chapter 3 of Title 6 of the Administrative Code.

ARTICLE 6. INSPECTION

6.1 During the progress of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall at all times afford the representatives of the **City** every reasonable, safe, and proper facility for inspecting all **Work** done or being done at the **Site** and also for inspecting the manufacture or preparation of materials and equipment at the place of such manufacture or preparation.

6.2 The **Contractor's** obligation hereunder shall include the uncovering or taking down of finished **Work** and its restoration thereafter; provided, however, that the order to uncover, take down and restore shall be in writing, and further provided that if **Work** thus exposed proves satisfactory, and if the **Contractor** has complied with Article 6.1, such uncovering or taking down and restoration shall be

considered an item of **Extra Work** to be paid for in accordance with the provisions of Article 26. If the **Work** thus exposed proves unsatisfactory, the **City** has no obligation to compensate the **Contractor** for the uncovering, taking down or restoration.

6.3 Inspection and approval by the **Commissioner**, the **Engineer**, **Project Manager**, or **Resident Engineer**, of finished **Work** or of **Work** being performed, or of materials and equipment at the place of manufacture or preparation, shall not relieve the **Contractor** of its obligation to perform the **Work** in strict accordance with the **Contract**. Finished or unfinished **Work** not found to be in strict accordance with the **Contract** shall be replaced as directed by the **Engineer**, even though such **Work** may have been previously approved and paid for. Such corrective **Work** is **Contract Work** and shall not be deemed **Extra Work**.

6.4 Rejected **Work** and materials shall be promptly taken down and removed from the **Site**, which must at all times be kept in a reasonably clean and neat condition.

ARTICLE 7. PROTECTION OF WORK AND OF PERSONS AND PROPERTY; NOTICES AND INDEMNIFICATION

7.1 During the performance of the Work and up to the date of Final Acceptance, the Contractor shall be under an absolute obligation to protect the finished and unfinished Work against any damage, loss, injury, theft and/or vandalism and in the event of such damage, loss, injury, theft and/or vandalism, it shall promptly replace and/or repair such Work at the Contractor's sole cost and expense, as directed by the Resident Engineer. The obligation to deliver finished Work in strict accordance with the Contract prior to Final Acceptance shall be absolute and shall not be affected by the Resident Engineer's approval of, or failure to prohibit, the Means and Methods of Construction used by the Contractor.

7.2 During the performance of the **Work** and up to the date of **Final Acceptance**, the **Contractor** shall take all reasonable precautions to protect all persons and the property of the **City** and of others from damage, loss or injury resulting from the **Contractor's**, and/or its **Subcontractors'** operations under this **Contract.** The **Contractor's** obligation to protect shall include the duty to provide, place or replace, and adequately maintain at or about the **Site** suitable and sufficient protection such as lights, barricades, and enclosures.

7.3 The **Contractor** shall comply with the notification requirements set forth below in the event of any loss, damage or injury to **Work**, persons or property, or any accidents arising out of the operations of the **Contractor** and/or its **Subcontractors** under this **Contract**.

7.3.1 The **Contractor** shall make a full and complete report in writing to the **Resident Engineer** within three (3) **Days** after the occurrence.

7.3.2 The **Contractor** shall also send written notice of any such event to all insurance carriers that issued potentially responsive policies (including commercial general liability insurance carriers for events relating to the **Contractor**'s own employees) no later than twenty (20) days after such event and again no later than twenty (20) days after the initiation of any claim and/or action resulting therefrom. Such notice shall contain the following information: the number of the insurance policy, the name of the Named Insured, the date and location of the incident, and the identity of the persons injured or property damaged. For any policy on which the **City** and/or the **Engineer**, **Architect**, or **Project Manager** are Additional Insureds, such notice shall expressly specify that "this notice is

being given on behalf of the City of New York as Additional Insured, such other Additional Insureds, as well as the Named Insured."

7.3.2(a) Whenever such notice is sent under a policy on which the **City** is an Additional Insured, the **Contractor** shall provide copies of the notice to the **Comptroller**, the **Commissioner** and the **City** Corporation Counsel. The copy to the **Comptroller** shall be sent to the Insurance Unit, NYC Comptroller's Office, 1 Centre Street – Room 1222, New York, New York, 10007. The copy to the **Commissioner** shall be sent to the address set forth in Schedule A of the General Conditions. The copy to the **City** Corporation Division, New York City Law Department, 100 Church Street, New York, New York City Law Department, 100 Church Street, New York, New York, New York.

7.3.2(b) If the **Contractor** fails to provide any of the foregoing notices to any appropriate insurance carrier(s) in a timely and complete manner, the **Contractor** shall indemnify the **City** for all losses, judgments, settlements, and expenses, including reasonable attorneys' fees, arising from an insurer's disclaimer of coverage citing late notice by or on behalf of the **City**.

7.4 To the fullest extent permitted by law, the Contractor shall defend, indemnify, and hold the City, its employees, and officials (the "Indemnitees") harmless against any and all claims (including but not limited to claims asserted by any employee of the Contractor and/or its Subcontractors) and costs and expenses of whatever kind (including but not limited to payment or reimbursement of attorneys' fees and disbursements) allegedly arising out of or in any way related to the operations of the Contractor and/or its Subcontractors in the performance of this Contract or from the Contractor's and/or its Subcontractors' failure to comply with any of the provisions of this Contract or of the Law. Such costs and expenses shall include all those incurred in defending the underlying claim and those incurred in connection with the enforcement of this Article 7.4 by way of cross-claim, third-party claim, declaratory action or otherwise. The parties expressly agree that the indemnification obligation hereunder contemplates (1) full indemnity in the event of liability imposed against the Indemnitees without negligence and solely by reason of statute, operation of Law or otherwise; and (2) partial indemnity in the event of any actual negligence on the part of the Indemnitees either causing or contributing to the underlying claim (in which case, indemnification will be limited to any liability imposed over and above that percentage attributable to actual fault whether by statute, by operation of Law, or otherwise). Where partial indemnity is provided hereunder, all costs and expenses shall be indemnified on a pro rata basis.

7.4.1 Indemnification under Article 7.4 or any other provision of the **Contract** shall operate whether or not **Contractor** or its **Subcontractors** have placed and maintained the insurance specified under Article 22.

7.5 The provisions of this Article 7 shall not be deemed to create any new right of action in favor of third parties against the **Contractor** or the **City**.

CHAPTER III: TIME PROVISIONS

ARTICLE 8. COMMENCEMENT AND PROSECUTION OF THE WORK

8.1 The **Contractor** shall commence the **Work** on the date specified in the **Notice to Proceed** or the **Order to Work**. The time for performance of the **Work** under the **Contract** shall be computed from

STANDARD CONSTRUCTION CONTRACT March 2017

12

the date specified in the Notice to Proceed or the Order to Work. TIME BEING OF THE ESSENCE to the City, the Contractor shall thereafter prosecute the Work diligently, using such Means and Methods of Construction as are in accord with Article 4 herein and as will assure its completion not later than the date specified in this Contract, or on the date to which the time for completion may be extended.

ARTICLE 9. PROGRESS SCHEDULES

9.1 To enable the **Work** to be performed in an orderly and expeditious manner, the **Contractor**, within fifteen (15) **Days** after the **Notice to Proceed** or **Order to Work**, unless otherwise directed by the **Engineer**, shall submit to the **Engineer** a proposed progress schedule based on the Critical Path Method in the form of a bar graph or in such other form as specified by the **Engineer**, and monthly cash flow requirements, showing:

9.1.1 The anticipated time of commencement and completion of each of the various operations to be performed under this **Contract**; and

9.1.2 The sequence and interrelation of each of these operations with the others and with those of other related contracts; and

9.1.3 The estimated time required for fabrication or delivery, or both, of all materials and equipment required for the **Work**, including the anticipated time for obtaining required approvals pursuant to Article 10; and

9.1.4 The estimated amount in dollars the **Contractor** will claim on a monthly basis.

9.2 The proposed schedule shall be revised as directed by the **Engineer**, until finally approved by the **Engineer**, and after such approval, subject to the provisions of Article 11, shall be strictly adhered to by the **Contractor**.

9.3 If the **Contractor** shall fail to adhere to the approved progress schedule, or to the schedule as revised pursuant to Article 11, it shall promptly adopt such other or additional **Means and Methods of Construction**, at its sole cost and expense, as will make up for the time lost and will assure completion in accordance with the approved progress schedule. The approval by the **City** of a progress schedule which is shorter than the time allotted under the **Contract** shall not create any liability for the **City** if the approved progress schedule is not met.

9.4 The **Contractor** will not receive any payments until the proposed progress schedule is submitted.

ARTICLE 10. REQUESTS FOR INFORMATION OR APPROVAL

10.1 From time to time as the **Work** progresses and in the sequence indicated by the approved progress schedule, the **Contractor** shall submit to the **Engineer** a specific request in writing for each item of information or approval required by the **Contractor**. These requests shall state the latest date upon which the information or approval is actually required by the **Contractor**, and shall be submitted in a reasonable time in advance thereof to provide the **Engineer** a sufficient time to act upon such submissions, or any necessary re-submissions thereof.

10.2 The **Contractor** shall not have any right to an extension of time on account of delays due to the **Contractor's** failure to submit requests for the required information or the required approval in accordance with the above requirements.

ARTICLE 11. NOTICE OF CONDITIONS CAUSING DELAY AND DOCUMENTATION OF DAMAGES CAUSED BY DELAY

11.1 After the commencement of any condition which is causing or may cause a delay in completion of the **Work**, including conditions for which the **Contractor** may be entitled to an extension of time, the following notifications and submittals are required:

11.1.1 Within fifteen (15) **Days** after the **Contractor** becomes aware or reasonably should be aware of each such condition, the **Contractor** must notify the **Resident Engineer** or **Engineer**, as directed by the **Commissioner**, in writing of the existence, nature and effect of such condition upon the approved progress schedule and the **Work**, and must state why and in what respects, if any, the condition is causing or may cause a delay. Such notice shall include a description of the construction activities that are or could be affected by the condition and may include any recommendations the **Contractor** may have to address the delay condition and any activities the **Contractor** may take to avoid or minimize the delay.

11.1.2 If the **Contractor** shall claim to be sustaining damages for delay as provided for in this Article 11, within forty-five (45) **Days** from the time such damages are first incurred for each such condition, the **Contractor** shall submit to the **Commissioner** a verified written statement of the details and estimates of the amounts of such damages, including categories of expected damages and projected monthly costs, together with documentary evidence of such damages as the **Contractor** may have at the time of submission ("statement of delay damages"), as further detailed in Article 11.6. The **Contractor** may submit the above statement within such additional time as may be granted by the **Commissioner** in writing upon written request therefor.

11.1.3 Articles 11.1.1 and 11.1.2 do not relieve the **Contractor** of its obligation to comply with the provisions of Article 44.

11.2 Failure of the **Contractor** to strictly comply with the requirements of Article 11.1.1 may, in the discretion of the **Commissioner**, be deemed sufficient cause to deny any extension of time on account of delay arising out of such condition. Failure of the **Contractor** to strictly comply with the requirements of both Articles 11.1.1 and 11.1.2 shall be deemed a conclusive waiver by the **Contractor** of any and all claims for damages for delay arising from such condition and no right to recover on such claims shall exist.

11.3 When appropriate and directed by the **Engineer**, the progress schedule shall be revised by the **Contractor** until finally approved by the **Engineer**. The revised progress schedule must be strictly adhered to by the **Contractor**.

11.4 Compensable Delays

11.4.1 The **Contractor** agrees to make claim only for additional costs attributable to delay in the performance of this **Contract** necessarily extending the time for completion of the **Work** or resulting from acceleration directed by the **Commissioner** and required to maintain the progress schedule, occasioned solely by any act or omission to act of the **City** listed below. The **Contractor** also agrees that delay from any other cause shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**.

- 11.4.1.1 The failure of the **City** to take reasonable measures to coordinate and progress the **Work** to the extent required by the **Contract**, except that the City shall not be responsible for the **Contractor's** obligation to coordinate and progress the **Work** of its **Subcontractors**.
- 11.4.1.2 Unreasonable delays attributable to the review of shop drawings, the issuance of change orders, or the cumulative impact of change orders that were not brought about by any act or omission of the **Contractor**.
- 11.4.1.3 The unavailability of the **Site** caused by acts or omissions of the **City**..
- 11.4.1.4 The issuance by the **Engineer** of a stop work order that was not brought about through any act or omission of the **Contractor**.
- 11.4.1.5 Differing site conditions or environmental hazards that were neither known nor reasonably ascertainable on a pre-bid inspection of the **Site** or review of the bid documents or other publicly available sources, and that are not ordinarily encountered in the **Project**'s geographical area or neighborhood or in the type of **Work** to be performed.
- 11.4.1.6 Delays caused by the **City's** bad faith or its willful, malicious, or grossly negligent conduct;
- 11.4.1.7 Delays not contemplated by the parties;
- 11.4.1.8 Delays so unreasonable that they constitute an intentional abandonment of the **Contract** by the **City**; and
- 11.4.1.9 Delays resulting from the **City's** breach of a fundamental obligation of the **Contract**.
- 11.4.2 No claim may be made for any alleged delay in **Substantial Completion** of the **Work** if the **Work** will be or is substantially completed by the date of **Substantial Completion** provided for in Schedule A unless acceleration has been directed by the **Commissioner** to meet the date of **Substantial Completion** set forth in Schedule A, or unless there is a provision in the **Contract** providing for additional compensation for early completion.

11.4.3 The provisions of this Article 11 apply only to claims for additional costs attributable to delay and do not preclude determinations by the **Commissioner** allowing reimbursements for additional costs for **Extra Work** pursuant to Articles 25 and 26 of this **Contract**. To the extent that any cost attributable to delay is reimbursed as part of a change order, no additional claim for compensation under this Article 11 shall be allowed.

11.5 Non-Compensable Delays. The **Contractor** agrees to make no claim for, and is deemed to have included in its bid prices for the various items of the **Contract**, the extra/additional costs attributable to any delays caused by or attributable to the items set forth below. For such items, the **Contractor** shall be compensated, if at all, solely by an extension of time to complete the performance of the **Work**, in accordance with the provisions of Article 13. Such extensions of time will be granted, if at all, pursuant to the grounds set forth in Article 13.3.

11.5.1 The acts or omissions of any third parties, including but not limited to **Other Contractors**, public/ governmental bodies (other than **City Agencies**), utilities or private enterprises, who are disclosed in the **Contract Documents** or are ordinarily encountered or generally recognized as related to the **Work**;

11.5.2 Any situation which was within the contemplation of the parties at the time of entering into the **Contract**, including any delay indicated or disclosed in the **Contract Documents** or that would be generally recognized by a reasonably prudent contractor as related to the nature of the **Work**, and/or the existence of any facility or appurtenance owned, operated or maintained by any third party, as indicated or disclosed in the **Contract Documents** or ordinarily encountered or generally recognized as related to the nature of the **Work**;

11.5.3 Restraining orders, injunctions or judgments issued by a court which were caused by a Contractor's submission, action or inaction or by a Contractor's **Means and Methods of Construction**, or by third parties, unless such order, injunction or judgment was the result of an act or omission by the **City**;

11.5.4 Any labor boycott, strike, picketing, lockout or similar situation;

11.5.5 Any shortages of supplies or materials, or unavailability of equipment, required by the **Contract Work**;

11.5.6 Climatic conditions, storms, floods, droughts, tidal waves, fires, hurricanes, earthquakes, landslides or other catastrophes or acts of God, or acts of war or of the public enemy or terrorist acts, including the **City's** reasonable responses thereto; and

11.5.7 Extra Work which does not significantly affect the overall completion of the **Contract**, reasonable delays in the review or issuance of change orders or field orders and/or in shop drawing reviews or approvals.

11.6 Required Content of Submission of Statement of Delay Damages

11.6.1 In the verified written statement of delay damages required by Article 11.1.2, the following information shall be provided by the **Contractor**:

- 11.6.1.1 For each delay, the start and end dates of the claimed periods of delay and, in addition, a description of the operations that were delayed, an explanation of how they were delayed, and the reasons for the delay, including identifying the applicable act or omission of the City listed in Article 11.4.
- 11.6.1.2 A detailed factual statement of the claim providing all necessary dates, locations and items of **Work** affected by the claim.
- 11.6.1.3 The estimated amount of additional compensation sought and a breakdown of that amount into categories as described in Article 11.7.
- 11.6.1.4 Any additional information requested by the **Commissioner**.

11.7 Recoverable Costs

11.7.1 Delay damages may be recoverable for the following costs actually and necessarily incurred in the performance of the **Work**:

- 11.7.1.1 Direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits, based on time and materials records;
- 11.7.1.2 Necessary materials (including transportation to the **Site**), based on time and material records;

- 11.7.1.3 Reasonable rental value of necessary plant and equipment other than small tools, plus fuel/energy costs according to the applicable formula set forth in Articles 26.2.4 and/or 26.2.8, based on time and material records;
- 11.7.1.4 Additional insurance and bond costs;
- 11.7.1.5 Extended Site overhead, field office rental, salaries of field office staff, on-site project managers and superintendents, field office staff vehicles, Project-specific storage, field office utilities and telephone, and field office consumables;
- 11.7.1.6 Labor escalation costs based on actual costs;
- 11.7.1.7 Materials and equipment escalation costs based on applicable industry indices unless documentation of actual increased cost is provided;
- 11.7.1.8 Additional material and equipment storage costs based on actual documented costs and additional costs necessitated by extended manufacturer warranty periods; and
- 11.7.1.9 Extended home office overhead calculated based on the following formula:
 - (1) Subtract from the original **Contract** amount the amount earned by original contractual **Substantial Completion** date (not including change orders);
 - (2) Remove 15% overhead and profit from the calculation in item (1) by dividing the results of item (1) by 1.15;
 - (3) Multiply the result of item (2) by 7.25% for the total home office overhead;
 - (4) Multiply the result of item (3) by 7.25% for the total profit; and
 - (5) The total extended home office overhead will be the total of items (3) and (4).

11.7.2 Recoverable Subcontractor Costs. When the **Work** is performed by a **Subcontractor**, the **Contractor** may be paid the actual and necessary costs of such subcontracted **Work** as outlined above in Articles 11.7.1.1 through 11.7.1.8, and an additional overhead of 5% of the costs outlined in Articles 11.7.1.1 through 11.7.1.3.

11.7.3 Non-Recoverable Costs. The parties agree that the **City** will have no liability for the following items and the **Contractor** agrees it shall make no claim for the following items:

- 11.7.3.1Profit, or loss of anticipated or unanticipated profit, except as provided in Article 11.7.1.9;
- 11.7.3.2Consequential damages, including, but not limited to, construction or bridge loans or interest paid on such loans, loss of bonding capacity, bidding opportunities, or interest in investment, or any resulting insolvency;
- 11.7.3.3 Indirect costs or expenses of any nature except those included in Article 11.7.1;
- 11.7.3.4 Direct or indirect costs attributable to performance of **Work** where the **Contractor**, because of situations or conditions within its control, has not progressed the **Work** in a satisfactory manner; and
- 11.7.3.5 Attorneys' fees and dispute and claims preparation expenses.

- 11.8 Any claims for delay under this Article 11 are not subject to the jurisdiction of the Contract Dispute Resolution Board pursuant to the dispute resolution process set forth in Article 27.
- 11.9 Any compensation provided to the **Contractor** in accordance with this Article 11 will be made pursuant to a claim filed with the **Comptroller**. Nothing in this Article 11 extends the time for the **Contractor** to file an action with respect to a claim within six months after **Substantial Completion** pursuant to Article 56.

ARTICLE 12. COORDINATION WITH OTHER CONTRACTORS

12.1 During the progress of the Work, Other Contractors may be engaged in performing other work or may be awarded other contracts for additional work on this **Project**. In that event, the **Contractor** shall coordinate the **Work** to be done hereunder with the work of such **Other Contractors** and the **Contractor** shall fully cooperate with such **Other Contractors** and carefully fit its own **Work** to that provided under other contracts as may be directed by the **Engineer**. The **Contractor** shall not commit or permit any act which will interfere with the performance of work by any **Other Contractors**.

12.2 If the **Engineer** determines that the **Contractor** is failing to coordinate its **Work** with the work of **Other Contractors** as the **Engineer** has directed, then the **Commissioner** shall have the right to withhold any payments otherwise due hereunder until the **Contractor** completely complies with the **Engineer's** directions.

12.3 The Contractor shall notify the Engineer in writing if any Other Contractor on this Project is failing to coordinate its work with the Work of this Contract. If the Engineer finds such charges to be true, the Engineer shall promptly issue such directions to the Other Contractor with respect thereto as the situation may require. The City shall not, however, be liable for any damages suffered by any Other Contractor's failure to coordinate its work with the Work of this Contract or by reason of the Other Contractor's failure to promptly comply with the directions so issued by the Engineer, or by reason of any Other Contractor's default in performance, it being understood that the City does not guarantee the responsibility or continued efficiency of any contractor. The Contractor agrees to make no claim against the City for any damages relating to or arising out of any directions issued by the Engineer pursuant to this Article 12 (including but not limited to the failure of any Other Contractor to coordinate its work, or the default in performance of any Other Contractor to coordinate its work, or the failure of any Other Contractor to coordinate its work, or the default in performance of any Other Contractor to coordinate its work, or the default in performance of any Other Contractor to coordinate its work, or the default in performance of any Other Contractor to coordinate its work, or the default in performance of any Other Contractor.

12.4 The **Contractor** shall indemnify and hold the **City** harmless from any and all claims or judgments for damages and from costs and expenses to which the **City** may be subjected or which it may suffer or incur by reason of the **Contractor's** failure to comply with the **Engineer's** directions promptly; and the **Comptroller** shall have the right to exercise the powers reserved in Article 23 with respect to any claims which may be made for damages due to the **Contractor's** failure to comply with the **Engineer's** directions promptly. Insofar as the facts and **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent provided by **Law**.

12.5 Should the **Contractor** sustain any damage through any act or omission of any **Other Contractor** having a contract with the **City** for the performance of work upon the **Site** or of work which may be necessary to be performed for the proper prosecution of the **Work** to be performed hereunder, or through any act or omission of a subcontractor of such **Other Contractor**, the **Contractor** shall have no claim against the **City** for such damage, but shall have a right to recover such damage from the **Other**

Contractor under the provision similar to the following provisions which apply to this **Contract** and have been or will be inserted in the contracts with such **Other Contractors**:

12.5.1 Should any **Other Contractor** having or who shall hereafter have a contract with the **City** for the performance of work upon the **Site** sustain any damage through any act or omission of the **Contractor** hereunder or through any act or omission of any **Subcontractor** of the **Contractor**, the **Contractor** agrees to reimburse such **Other Contractor** for all such damages and to defend at its own expense any action based upon such claim and if any judgment or claim (even if the allegations of the action are without merit) against the **City** shall be allowed the **Contractor** shall pay or satisfy such judgment or claim and pay all costs and expenses in connection therewith and agrees to indemnify and hold the **City** harmless from all such claims. Insofar as the facts and **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent provided by **Law**.

12.6 The **City'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 Article 15, or by the exercise of any other remedy provided for by **Contract** or by **Law**.

ARTICLE 13. EXTENSION OF TIME FOR PERFORMANCE

13.1 If performance by the **Contractor** is delayed for a reason set forth in Article 13.3, the **Contractor** may be allowed a reasonable extension of time in conformance with this Article 13 and the **PPB** Rules.

13.2 Any extension of time may be granted only by the **ACCO** or by the Board for the Extension of Time (hereafter "Board") (as set forth below) upon written application by the **Contractor**.

13.3 Grounds for Extension: If such application is made, the **Contractor** shall be entitled to an extension of time for delay in completion of the **Work** caused solely:

13.3.1 By the acts or omissions of the City, its officials, agents or employees; or

13.3.2 By the act or omissions of Other Contractors on this Project; or

13.3.3 By supervening conditions entirely beyond the control of either party hereto (such as, but not limited to, acts of God or the public enemy, excessive inclement weather, war or other national emergency making performance temporarily impossible or illegal, or strikes or labor disputes not brought about by any act or omission of the **Contractor**).

13.3.4 The **Contractor** shall, however, be entitled to an extension of time for such causes only for the number of **Days** of delay which the **ACCO** or the Board may determine to be due solely to such causes, and then only if the **Contractor** shall have strictly complied with all of the requirements of Articles 9 and 10.

13.4 The **Contractor** shall not be entitled to receive a separate extension of time for each of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the **Work** as determined by the **ACCO** or the Board, irrespective of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault or omission of the **Contractor** or of its **Subcontractors** or **Materialmen**, and would of itself (irrespective

of the concurrent causes) have delayed the **Work**, no extension of time will be allowed for the period of delay resulting from such act, fault or omission.

13.5 The determination made by the **ACCO** or the Board on an application for an extension of time shall be binding and conclusive on the **Contractor**.

13.6 The ACCO or the Board acting entirely within their discretion may grant an application for an extension of time for causes of delay other than those herein referred.

13.7 Permitting the **Contractor** to continue with the **Work** after the time fixed for its completion has expired, or after the time to which such completion may have been extended has expired, or the making of any payment to the **Contractor** after such time, shall in no way operate as a waiver on the part of the **City** of any of its rights under this **Contract**.

13.8 Application for Extension of Time:

13.8.1 Before the **Contractor's** time extension request will be considered, the **Contractor** shall notify the **ACCO** of the condition which allegedly has caused or is causing the delay, and shall submit a written application to the **ACCO** identifying:

13.8.1(a) The Contractor; the registration number; and Project description;

13.8.1(b) Liquidated damage assessment rate, as specified in the Contract;

13.8.1(c) Original total bid price;

13.8.1(d) The original **Contract** start date and completion date;

13.8.1(e) Any previous time extensions granted (number and duration); and

13.8.1(f) The extension of time requested.

13.8.2 In addition, the application for extension of time shall set forth in detail:

13.8.2(a) The nature of each alleged cause of delay in completing the Work;

13.8.2(b) The date upon which each such cause of delay began and ended and the number of **Days** attributable to each such cause;

13.8.2(c) A statement that the **Contractor** waives all claims except for those delineated in the application, and the particulars of any claims which the **Contractor** does not agree to waive. For time extensions for **Substantial Completion** and final completion payments, the application shall include a detailed statement of the dollar amounts of each element of claim item reserved; and

13.8.2(d) A statement indicating the **Contractor's** understanding that the time extension is granted only for purposes of permitting continuation of **Contract** performance and payment for **Work** performed and that the **City** retains its right to conduct an investigation and assess liquidated damages as appropriate in the future.

13.9 Analysis and Approval of Time Extensions:

13.9.1 For time extensions for partial payments, a written determination shall be made by the **ACCO** who may, for good and sufficient cause, extend the time for the performance of the **Contract** as follows:

13.9.1(a) If the **Work** is to be completed within six (6) months, the time for performance may be extended for sixty (60) **Days**;

13.9.1(b) If the **Work** is to be completed within less than one (1) year but more than six (6) months, an extension of ninety (90) **Days** may be granted;

13.9.1(c) If the **Contract** period exceeds one (1) year, besides the extension granted in Article 13.9.1(b), an additional thirty (30) **Days** may be granted for each multiple of six (6) months involved beyond the one (1) year period; or

13.9.1(d) If exceptional circumstances exist, the **ACCO** may extend the time for performance beyond the extensions in Articles 13.9.1(a), 13.9.1(b), and 13.9.1(c). In that event, the **ACCO** shall file with the Mayor's Office of Contract Services a written explanation of the exceptional circumstances.

13.9.2 For extensions of time for **Substantial Completion** and final completion payments, the **Engineer**, in consultation with the **ACCO**, shall prepare a written analysis of the delay (including a preliminary determination of the causes of delay, the beginning and end dates for each such cause of delay, and whether the delays are excusable under the terms of this **Contract**). The report shall be subject to review by and approval of the Board, which shall have authority to question its analysis and determinations and request additional facts or documentation. The report as reviewed and made final by the Board shall be made a part of the **Agency** contract file. Neither the report itself nor anything contained therein shall operate as a waiver or release of any claim the **City** may have against the **Contractor** for either actual or liquidated damages.

13.9.3 Approval Mechanism for Time Extensions for **Substantial Completion** or Final Completion Payments: An extension shall be granted only with the approval of the Board which is comprised of the **ACCO** of the **Agency**, the **City** Corporation Counsel, and the **Comptroller**, or their authorized representatives.

13.9.4 Neither the granting of any application for an extension of time to the **Contractor** or any **Other Contractor** on this **Project** nor the papers, records or reports related to any application for or grant of an extension of time or determination related thereto shall be referred to or offered in evidence by the **Contractor** or its attorneys in any action or proceeding.

13.10 No Damage for Delay: The **Contractor** agrees to make no claim for damages for delay in the performance of this **Contract** occasioned by any act or omission to act of the **City** or any of its representatives, except as provided for in Article 11.

ARTICLE 14. COMPLETION AND FINAL ACCEPTANCE OF THE WORK

14.1 Date for **Substantial Completion**: The **Contractor** shall substantially complete the **Work** within the time fixed in Schedule A of the General Conditions, or within the time to which such **Substantial Completion** may be extended.

14.2 Determining the Date of **Substantial Completion**: The **Work** will be deemed to be substantially complete when the two conditions set forth below have been met.

14.2.1 Inspection: The **Engineer** or **Resident Engineer**, as applicable, has inspected the **Work** and has made a written determination that it is substantially complete.

14.2.2 Approval of Final Approved Punch List and Date for Final Acceptance: Following inspection of the Work, the Engineer/Resident Engineer shall furnish the Contractor with a final punch list, specifying all items of Work to be completed and proposing dates for the completion of each specified item of Work. The Contractor shall then submit in writing to the Engineer/Resident Engineer within ten (10) Days of the Engineer/Resident Engineer furnishing the final punch list either acceptance of the dates or proposed alternative dates for the completion of each specified item of Work. If the Contractor neither accepts the dates nor proposes alternative dates within ten (10) Days, the schedule proposed by the Engineer/Resident Engineer shall be deemed accepted. If the Contractor proposes alternative dates, then, within a reasonable time after receipt, the Engineer/Resident Engineer, in a written notification to the Contractor, shall approve the Contractor's completion dates or, if they are unable to agree, the Engineer/Resident Engineer shall establish dates for the completion of each item of Work. The latest completion date specified shall be the date for Final Acceptance of the Work.

14.3 Date of Substantial Completion. The date of approval of the Final Approved Punch List, shall be the date of Substantial Completion. The date of approval of the Final Approved Punch List shall be either (a) if the Contractor approves the final punch list and proposed dates for completion furnished by the Engineer/Resident Engineer, the date of the Contractor's approval; or (b) if the Contractor neither accepts the dates nor proposes alternative dates, ten (10) Days after the Engineer/Resident Engineer furnishes the Contractor with a final punch list and proposed dates for completion; or (c) if the Contractor proposes alternative dates, the date that the Engineer/Resident Engineer sends written notification to the Contractor either approving the Contractor's proposed alternative dates or establishing dates for the completion for each item of Work.

14.4 Determining the Date of **Final Acceptance**: The **Work** will be accepted as final and complete as of the date of the **Engineer's/Resident Engineer**'s inspection if, upon such inspection, the **Engineer/Resident Engineer** finds that all items on the **Final Approved Punch List** are complete and no further **Work** remains to be done. The **Commissioner** will then issue a written determination of **Final Acceptance**.

14.5 Request for Inspection: Inspection of the **Work** by the **Engineer/Resident Engineer** for the purpose of **Substantial Completion** or **Final Acceptance** shall be made within fourteen (14) **Days** after receipt of the **Contractor's** written request therefor.

14.6 Request for Re-inspection: If upon inspection for the purpose of **Substantial Completion** or **Final Acceptance**, the **Engineer/Resident Engineer** determines that there are items of **Work** still to be performed, the **Contractor** shall promptly perform them and then request a re-inspection. If upon re-inspection, the **Engineer/Resident Engineer** determines that the **Work** is substantially complete or finally accepted, the date of such re-inspection shall be the date of **Substantial Completion** or **Final Acceptance**. Re-inspection by the **Engineer/Resident Engineer** shall be made within ten (10) **Days** after receipt of the **Contractor's** written request therefor.

14.7 Initiation of Inspection by the Engineer/Resident Engineer: If the Contractor does not request inspection or re-inspection of the Work for the purpose of Substantial Completion or Final Acceptance, the Engineer/Resident Engineer may initiate such inspection or re-inspection.

ARTICLE 15. LIQUIDATED DAMAGES

15.1 In the event the **Contractor** fails to substantially complete the **Work** within the time fixed for such **Substantial Completion** in Schedule A of the General Conditions, plus authorized time extensions, or if the **Contractor**, in the sole determination of the **Commissioner**, has abandoned the **Work**, the **Contractor** shall pay to the **City** the sum fixed in Schedule A of the General Conditions, for each and every **Day** that the time consumed in substantially completing the **Work** exceeds the time allowed therefor; which said sum, in view of the difficulty of accurately ascertaining the loss which the **City** will suffer by reason of delay in the **Substantial Completion** of the **Work** hereunder, is hereby fixed and agreed as the liquidated damages that the **City** will suffer by reason of such delay, and not as a penalty. This Article 15 shall also apply to the **Contractor** whether or not the **Contractor** is defaulted pursuant to Chapter X of this **Contract**. Neither the failure to assess liquidated damages nor the granting of any time extension shall operate as a waiver or release of any claim the **City** may have against the **Contractor** for either actual or liquidated damages.

15.2 Liquidated damages received hereunder are not intended to be nor shall they be treated as either a partial or full waiver or discharge of the **City's** right to indemnification, or the **Contractor's** obligation to indemnify the **City**, or to any other remedy provided for in this **Contract** or by **Law**.

15.3 The **Commissioner** may deduct and retain out of the monies which may become due hereunder, the amount of any such liquidated damages; and in case the amount which may become due hereunder shall be less than the amount of liquidated damages suffered by the **City**, the **Contractor** shall be liable to pay the difference.

ARTICLE 16. OCCUPATION OR USE PRIOR TO COMPLETION

16.1 Unless otherwise provided for in the **Specifications**, the **Commissioner** may take over, use, occupy or operate any part of the **Work** at any time prior to **Final Acceptance**, upon written notification to the **Contractor**. The **Engineer** or **Resident Engineer**, as applicable, shall inspect the part of the **Work** to be taken over, used, occupied, or operated, and will furnish the **Contractor** with a written statement of the **Work**, if any, which remains to be performed on such part. The **Contractor** shall not object to, nor interfere with, the **Commissioner's** decision to exercise the rights granted by Article 16. In the event the **Commissioner** takes over, uses, occupies, or operates any part of the **Work**:

16.1.1 the Engineer/Resident Engineer shall issue a written determination of Substantial Completion with respect to such part of the Work;

16.1.2 the **Contractor** shall be relieved of its absolute obligation to protect such part of the unfinished **Work** in accordance with Article 7;

16.1.3 the **Contractor's** guarantee on such part of the **Work** shall begin on the date of such use by the **City**; and;

16.1.4 the **Contractor** shall be entitled to a return of so much of the amount retained in accordance with Article 21 as it relates to such part of the **Work**, except so much thereof as may be retained under Articles 24 and 44.

CHAPTER IV: SUBCONTRACTS AND ASSIGNMENTS

ARTICLE 17. SUBCONTRACTS

17.1 The **Contractor** shall not make subcontracts totaling an amount more than the percentage of the total **Contract** price fixed in Schedule A of the General Conditions, without prior written permission from the **Commissioner**. All subcontracts made by the **Contractor** shall be in writing. No **Work** may be performed by a **Subcontractor** prior to the **Contractor** entering into a written subcontract with the **Subcontractor** and complying with the provisions of this Article 17.

17.2 Before making any subcontracts, the **Contractor** shall submit a written statement to the **Commissioner** giving the name and address of the proposed **Subcontractor**; the portion of the **Work** and materials which it is to perform and furnish; the cost of the subcontract; the VENDEX questionnaire if required; the proposed subcontract if requested by the **Commissioner**; and any other information tending to prove that the proposed **Subcontractor** has the necessary facilities, skill, integrity, past experience, and financial resources to perform the **Work** in accordance with the terms and conditions of this **Contract**.

17.3 In addition to the requirements in Article 17.2, **Contractor** is required to list the **Subcontractor** in the web based Subcontractor Reporting System through the City's Payee Information Portal (PIP), available at <u>www.nyc.gov/pip</u>.¹ For each **Subcontractor** listed, **Contractor** is required to provide the following information: maximum contract value, description of **Subcontractor's** Work, start and end date of the subcontract and identification of the **Subcontractor**'s industry. Thereafter, **Contractor** will be required to report in the system the payments made to each **Subcontractor** within 30 days of making the payment. If any of the required information changes throughout the Term of the **Contract, Contractor** will be required to revise the information in the system.

Failure of the **Contractor** to list a **Subcontractor** and/or to report **Subcontractor** payments in a timely fashion may result in the **Commissioner** declaring the **Contractor** in default of the **Contract** and will subject **Contractor** to liquidated damages in the amount of \$100 per day for each day that the **Contractor** fails to identify a **Subcontractor** along with the required information about the **Subcontractor** and/or fails to report payments to a **Subcontractor**, beyond the time frames set forth herein or in the notice from the **City**. Article 15 shall govern the issue of liquidated damages.

17.4 If an approved **Subcontractor** elects to subcontract any portion of its subcontract, the proposed sub-subcontract shall be submitted in the same manner as directed above.

17.5 The **Commissioner** will notify the **Contractor** in writing whether the proposed **Subcontractor** is approved. If the proposed **Subcontractor** is not approved, the **Contractor** may submit another proposed **Subcontractor** unless the **Contractor** decides to do the **Work**. No **Subcontractor** shall be permitted to enter or perform any work on the **Site** unless approved.

17.6 Before entering into any subcontract hereunder, the **Contractor** shall provide the proposed **Subcontractor** with a complete copy of this document and inform the proposed **Subcontractor** fully and completely of all provisions and requirements of this **Contract** relating either directly or indirectly to the **Work** to be performed and the materials to be furnished under such subcontract, and every such

¹ In order to use the new system, a PIP account will be required. Detailed instructions on creating a PIP account and using the new system are also available at <u>www.nyc.gov/pip</u>. Additional assistance with PIP may be obtained by emailing the Financial Information Services Agency Help Desk at <u>pip@fisa.nyc.gov</u>.

Subcontractor shall expressly stipulate that all labor performed and materials furnished by the **Subcontractor** shall strictly comply with the requirements of this **Contract**.

17.7 Documents given to a prospective **Subcontractor** for the purpose of soliciting the **Subcontractor's** bid shall include either a copy of the bid cover or a separate information sheet setting forth the **Project** name, the **Contract** number (if available), the **Agency** (as noted in Article 2.1.6), and the **Project's** location.

17.8 The **Commissioner's** approval of a **Subcontractor** shall not relieve the **Contractor** of any of its responsibilities, duties, and liabilities hereunder. The **Contractor** shall be solely responsible to the **City** for the acts or defaults of its **Subcontractor** and of such **Subcontractor's** officers, agents, and employees, each of whom shall, for this purpose, be deemed to be the agent or employee of the **Contractor** to the extent of its subcontract.

17.9 If the **Subcontractor** fails to maintain the necessary facilities, skill, integrity, past experience, and financial resources (other than due to the **Contractor's** failure to make payments where required) to perform the **Work** in accordance with the terms and conditions of this **Contract**, the **Contractor** shall promptly notify the **Commissioner** and replace such **Subcontractor** with a newly approved **Subcontractor** in accordance with this Article 17.

17.10 The **Contractor** shall be responsible for ensuring that all **Subcontractors** performing **Work** at the **Site** maintain all insurance required by **Law**.

17.11 The **Contractor** shall promptly, upon request, file with the **Engineer** a conformed copy of the subcontract and its cost. The subcontract shall provide the following:

17.11.1 Payment to **Subcontractors**: The agreement between the **Contractor** and its **Subcontractor** shall contain the same terms and conditions as to method of payment for **Work**, labor, and materials, and as to retained percentages, as are contained in this **Contract**.

17.11.2 Prevailing Rate of Wages: The agreement between the **Contractor** and its **Subcontractor** shall include the prevailing wage rates and supplemental benefits to be paid in accordance with Labor Law Section 220.

17.11.3 Section 6-123 of the Administrative Code: Pursuant to the requirements of Section 6-123 of the Administrative Code, every agreement between the **Contractor** and a **Subcontractor** in excess of fifty thousand (\$50,000) dollars shall include a provision that the **Subcontractor** shall not engage in any unlawful discriminatory practice as defined in Title VIII of the Administrative Code (Section 8-101 *et seq.*).

17.11.4 All requirements required pursuant to federal and/or state grant agreement(s), if applicable to the **Work**.

17.12 The **Commissioner** may deduct from the amounts certified under this **Contract** to be due to the **Contractor**, the sum or sums due and owing from the **Contractor** to the **Subcontractors** according to the terms of the said subcontracts, and in case of dispute between the **Contractor** and its **Subcontractor**, or **Subcontractors**, as to the amount due and owing, the **Commissioner** may deduct and withhold from the amounts certified under this **Contract** to be due to the **Contractor** such sum or sums as may be claimed by such **Subcontractor**, or **Subcontractors**, in a sworn affidavit, to be due and owing until such time as such claim or claims shall have been finally resolved.

17.13 On contracts where performance bonds and payment bonds are executed, the **Contractor** shall include on each requisition for payment the following data: **Subcontractor's** name, value of the subcontract, total amount previously paid to **Subcontractor** for **Work** previously requisitioned, and the amount, including retainage, to be paid to the **Subcontractor** for **Work** included in the requisition.

17.14 On **Contracts** where performance bonds and payment bonds are not executed, the **Contractor** shall include with each requisition for payment submitted hereunder, a signed statement from each and every **Subcontractor** and/or **Materialman** for whom payment is requested in such requisition. Such signed statement shall be on the letterhead of the **Subcontractor** and/or **Materialman** for whom payment is requested and shall (i) verify that such **Subcontractor** and/or **Materialman** has been paid in full for all **Work** performed and/or material supplied to date, exclusive of any amount retained on the current requisition, and (ii) state the total amount of retainage to date, exclusive of any amount retained on the current requisition.

ARTICLE 18. ASSIGNMENTS

18.1 The **Contractor** shall not assign, transfer, convey or otherwise dispose of this **Contract**, or the right to execute it, or the right, title or interest in or to it or any part thereof, or assign, by power of attorney or otherwise any of the monies due or to become due under this **Contract**, unless the previous written consent of the **Commissioner** shall first be obtained thereto, and the giving of any such consent to a particular assignment shall not dispense with the necessity of such consent to any further or other assignments.

18.2 Such assignment, transfer, conveyance or other disposition of this **Contract** shall not be valid until filed in the office of the **Commissioner** and the **Comptroller**, with the written consent of the **Commissioner** endorsed thereon or attached thereto.

18.3 Failure to obtain the previous written consent of the **Commissioner** to such an assignment, transfer, conveyance or other disposition, may result in the revocation and annulment of this **Contract**. The **City** shall thereupon be relieved and discharged from any further liability to the **Contractor**, its assignees, transferees or sublessees, who shall forfeit and lose all monies therefor earned under the **Contract**, except so much as may be required to pay the **Contractor's** employees.

18.4 The provisions of this clause shall not hinder, prevent, or affect an assignment by the **Contractor** for the benefit of its creditors made pursuant to the **Laws** of the State of New York.

18.5 This **Contract** may be assigned by the **City** to any corporation, agency or instrumentality having authority to accept such assignment.

CHAPTER V: CONTRACTOR'S SECURITY AND GUARANTEE

ARTICLE 19. SECURITY DEPOSIT

19.1 If performance and payment bonds are required, the **City** shall retain the bid security to ensure that the successful bidder executes the **Contract** and furnishes the required payment and performance security within ten (10) **Days** after notice of the award of the **Contract**. If the successful bidder fails to execute the **Contract** and furnish the required payment and performance security, the **City** shall retain such bid security as set forth in the Information for Bidders. If the successful bidder executes the

Contract and furnishes the required payment and performance security, the **City** shall return the bid security within a reasonable time after the furnishing of such bonds and execution of the **Contract** by the **City**.

19.2 If performance and payment bonds are not required, the bid security shall be retained by the **City** as security for the **Contractor**'s faithful performance of the **Contract**. If partial payments are provided, the bid security will be returned to the **Contractor** after the sum retained under Article 21 equals the amount of the bid security, subject to other provisions of this **Contract**. If partial payments are not provided, the bid security will be released when final payment is certified by the **City** for payment.

19.3 If the **Contractor** is declared in default under Article 48 prior to the return of the deposit, or if any claim is made such as referred to in Article 23, the amount of such deposit, or so much thereof as the **Comptroller** may deem necessary, may be retained and then applied by the **Comptroller**:

19.3.1 To compensate the **City** for any expense, loss or damage suffered or incurred by reason of or resulting from such default, including the cost of re-letting and liquidated damages; or

19.3.2 To indemnify the City against any and all claims.

ARTICLE 20. PAYMENT GUARANTEE

20.1 On **Contracts** where one hundred (100%) percent performance bonds and payment bonds are executed, this Article 20 does not apply.

20.2 In the event the terms of this **Contract** do not require the **Contractor** to provide a payment bond or where the **Contract** does not require a payment bond for one hundred (100%) percent of the **Contract** price, the **City** shall, in accordance with the terms of this Article 20, guarantee payment of all lawful claims for:

20.2.1 Wages and compensation for labor performed and/or services rendered; and

20.2.2 Materials, equipment, and supplies provided, whether incorporated into the **Work** or not, when demands have been filed with the **City** as provided hereinafter by any person, firm, or corporation which furnished labor, material, equipment, supplies, or any combination thereof, in connection with the **Work** performed hereunder (hereinafter referred to as the "beneficiary") at the direction of the **City** or the **Contractor**.

20.3 The provisions of Article 20.2 are subject to the following limitations and conditions:

20.3.1 If the **Contractor** provides a payment bond for a value that is less than one hundred (100%) percent of the value of the **Contract Work**, the payment bond provided by the **Contractor** shall be primary (and non-contributing) to the payment guarantee provided under this Article 20.

20.3.2 The guarantee is made for the benefit of all beneficiaries as defined in Article 20.2 provided that those beneficiaries strictly adhere to the terms and conditions of Article 20.3.4 and 20.3.5.

20.3.3 Nothing in this Article 20 shall prevent a beneficiary providing labor, services or material for the **Work** from suing the **Contractor** for any amounts due and owing the beneficiary by the **Contractor**.

20.3.4 Every person who has furnished labor or material, to the **Contractor** or to a Subcontractor of the Contractor, in the prosecution of the Work and who has not been paid in full therefor before the expiration of a period of ninety (90) Days after the date on which the last of the labor was performed or material was furnished by him/her for which the claim is made, shall have the right to sue on this payment guarantee in his/her own name for the amount, or the balance thereof, unpaid at the time of commencement of the action; provided, however, that a person having a direct contractual relationship with a Subcontractor of the Contractor but no contractual relationship express or implied with the **Contractor** shall not have a right of action upon the guarantee unless he/she shall have given written notice to the Contractor within one hundred twenty (120) Days from the date on which the last of the labor was performed or the last of the material was furnished, for which his/her claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the material was furnished or for whom the labor was performed. The notice shall be served by delivering the same personally to the **Contractor** or by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Contractor at any place where it maintains an office or conducts its business; provided, however, that where such notice is actually received by the **Contractor** by other means, such notice shall be deemed sufficient.

20.3.5 Except as provided in Labor Law Section 220-g, no action on this payment guarantee shall be commenced after the expiration of the one-year limitations period set forth in Section 137(4)(b) of the State Finance Law.

20.3.6 The **Contractor** shall promptly forward to the **City** any notice or demand received pursuant to Article 20.3.4. The **Contractor** shall inform the **City** of any defenses to the notice or demand and shall forward to the **City** any documents the **City** requests concerning the notice or demand.

20.3.7 All demands made against the **City** by a beneficiary of this payment guarantee shall be presented to the **Engineer** along with all written documentation concerning the demand which the **Engineer** deems reasonably appropriate or necessary, which may include, but shall not be limited to: the subcontract; any invoices presented to the **Contractor** for payment; the notarized statement of the beneficiary that the demand is due and payable, that a request for payment has been made of the **Contractor** and that the demand has not been paid by the **Contractor** within the time allowed for such payment by the subcontract; and copies of any correspondence between the beneficiary and the **Contractor** concerning such demand. The **City** shall notify the **Contractor** that a demand has been made. The **Contractor** shall inform the **City** of any defenses to the demand and shall forward to the **City** any documents the **City** requests concerning the demand.

20.3.8 The **City** shall make payment only if, after considering all defenses presented by the **Contractor**, it determines that the payment is due and owing to the beneficiary making the demand.

20.3.9 No beneficiary shall be entitled to interest from the **City**, or to any other costs, including, but not limited to, attorneys' fees, except to the extent required by State Finance Law Section 137.

20.4 Upon the receipt by the **City** of a demand pursuant to this Article 20, the **City** may withhold from any payment otherwise due and owing to the **Contractor** under this **Contract** an amount sufficient to satisfy the demand.

20.4.1 In the event the **City** determines that the demand is valid, the **City** shall notify the **Contractor** of such determination and the amount thereof and direct the **Contractor** to immediately pay such amount to the beneficiary. In the event the **Contractor**, within seven (7) **Days** of receipt of such notification from the **City**, fails to pay the beneficiary, such failure shall constitute an automatic and irrevocable assignment of payment by the **Contractor** to the beneficiary for the amount of the demand determined by the **City** to be valid. The **Contractor**, without further notification or other process, hereby gives its unconditional consent to such assignment of payment to the beneficiary and authorizes the **City**, on its behalf, to take all necessary actions to implement such assignment of payment, including without limitation the execution of any instrument or documentation necessary to effectuate such assignment.

20.4.2In the event that the amount otherwise due and owing to the **Contractor** by the **City** is insufficient to satisfy such demand, the **City** may, at its option, require payment from the **Contractor** of an amount sufficient to cover such demand and exercise any other right to require or recover payment which the **City** may have under **Law** or **Contract**.

20.4.3 In the event the **City** determines that the demand is invalid, any amount withheld pending the **City**'s review of such demand shall be paid to the **Contractor**; provided, however, no lien has been filed. In the event a claim or an action has been filed, the terms and conditions set forth in Article 23 shall apply. In the event a lien has been filed, the parties will be governed by the provisions of the Lien Law of the State of New York.

20.5 The provisions of this Article 20 shall not prevent the **City** and the **Contractor** from resolving disputes in accordance with the **PPB** Rules, where applicable.

20.6 In the event the **City** determines that the beneficiary is entitled to payment pursuant to this Article 20, such determination and any defenses and counterclaims raised by the **Contractor** shall be taken into account in evaluating the **Contractor's** performance.

20.7 Nothing in this Article 20 shall relieve the **Contractor** of the obligation to pay the claims of all persons with valid and lawful claims against the **Contractor** relating to the **Work**.

20.8 The **Contractor** shall not require any performance, payment or other bonds of any **Subcontractor** if this **Contract** does not require such bonds of the **Contractor**.

20.9 The payment guarantee made pursuant to this Article 20 shall be construed in a manner consistent with Section 137 of the State Finance Law and shall afford to persons furnishing labor or materials to the **Contractor** or its **Subcontractors** in the prosecution of the **Work** under this **Contract** all of the rights and remedies afforded to such persons by such section, including but not limited to, the right to commence an action against the **City** on the payment guarantee provided by this Article 20 within the one-year limitations period set forth in Section 137(4)(b).

ARTICLE 21. RETAINED PERCENTAGE

21.1 If this **Contract** requires one hundred (100%) percent performance and payment security, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and

retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.2 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded does not exceed one million (\$1,000,000) dollars, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, five (5%) percent of the value of **Work** certified for payment in each partial payment voucher.

21.3 If this **Contract** does not require one hundred (100%) percent performance and payment security and if the price for which this **Contract** was awarded exceeds one million (\$1,000,000) dollars, then as further security for the faithful performance of this **Contract**, the **Commissioner** shall deduct, and retain until the substantial completion of the **Work**, up to ten (10%) percent of the value of **Work** certified for payment in each partial payment voucher. The percentage to be retained is set forth in Schedule A of the General Conditions.

ARTICLE 22. INSURANCE

22.1 Types of Insurance: The **Contractor** shall procure and maintain the following types of insurance if, and as indicated, in Schedule A of the General Conditions (with the minimum limits and special conditions specified in Schedule A). Such insurance shall be maintained from the date the **Contractor** is required to provide Proof of Insurance pursuant to Article 22.3.1 through the date of completion of all required **Work** (including punch list work as certified in writing by the **Resident Engineer**), except for insurance required pursuant to Article 22.1.4, which may terminate upon **Substantial Completion** of the **Contract**. All insurance shall meet the requirements set forth in this Article 22. Wherever this Article requires that insurance coverage be "at least as broad" as a specified form (including all ISO forms), there is no obligation that the form itself be used, provided that the **Contractor** can demonstrate that the alternative form or endorsement contained in its policy provides coverage at least as broad as the specified form.

22.1.1 Commercial General Liability Insurance: The **Contractor** shall provide Commercial General Liability Insurance covering claims for property damage and/or bodily injury, including death, which may arise from any of the operations under this **Contract**. Coverage under this insurance shall be at least as broad as that provided by the latest edition of Insurance Services Office ("ISO") Form CG 0001. Such insurance shall be "occurrence" based rather than "claims-made" and include, without limitation, the following types of coverage: premises operations; products and completed operations; contractual liability (including the tort liability of another assumed in a contract); broad form property damage; independent contractors; explosion, collapse and underground (XCU); construction means and methods; and incidental malpractice. Such insurance shall contain a "per project" aggregate limit, as specified in Schedule A, that applies separately to operations under this **Contract**.

22.1.1(a) Such Commercial General Liability Insurance shall name the **City** as an Additional Insured. Coverage for the City shall specifically include the **City's** officials and employees, be at least as broad as the latest edition of ISO Form CG 20 10 and provide completed operations coverage at least as broad as the latest edition of ISO Form CG 20 37.

22.1.1(b) Such Commercial General Liability Insurance shall name all other entities designated as additional insureds in Schedule A but only for claims arising from the

Contractor's operations under this **Contract**, with coverage at least as broad as the latest edition of ISO Form CG 20 26.

22.1.1(c) If the **Work** requires a permit from the Department of Buildings pursuant to 1 RCNY Section 101-08, the **Contractor** shall provide Commercial General Liability Insurance with limits of at least those required by 1 RCNY section 101-08 or greater limits required by the Agency in accordance with Schedule A. If the **Work** does not require such a permit, the minimum limits shall be those provided for in Schedule A.

22.1.1(d) If any of the **Work** includes repair of a waterborne vessel owned by or to be delivered to the **City**, such Commercial General Liability shall include, or be endorsed to include, Ship Repairer's Legal Liability Coverage to protect against, without limitation, liability arising from navigation of such vessels prior to delivery to and acceptance by the **City**.

22.1.2 Workers' Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance: The **Contractor** shall provide, and shall cause its **Subcontractors** to provide, Workers Compensation Insurance, Employers' Liability Insurance, and Disability Benefits Insurance in accordance with the **Laws** of the State of New York on behalf of all employees providing services under this **Contract** (except for those employees, if any, for which the **Laws** require insurance only pursuant to Article 22.1.3).

22.1.3 United States Longshoremen's and Harbor Workers Act and/or Jones Act Insurance: If specified in Schedule A of the General Conditions or if required by **Law**, the **Contractor** shall provide insurance in accordance with the United States Longshoremen's and Harbor Workers Act and/or the Jones Act, on behalf of all qualifying employees providing services under this **Contract**.

22.1.4 Builders Risk Insurance: If specified in Schedule A of the General Conditions, the **Contractor** shall provide Builders Risk Insurance on a completed value form for the total value of the **Work** through **Substantial Completion** of the **Work** in its entirety. Such insurance shall be provided on an All Risk basis and include coverage, without limitation, for windstorm (including named windstorm), storm surge, flood and earth movement. Unless waived by the **Commissioner**, it shall include coverage for ordinance and law, demolition and increased costs of construction, debris removal, pollutant clean up and removal, and expediting costs. Such insurance shall cover, without limitation, (a) all buildings and/or structures involved in the **Work**, as well as temporary structures at the **Site**, and (b) any property that is intended to become a permanent part of such building or structure, whether such property is on the **Site**, in transit or in temporary storage. Policies shall name the **Contractor** as Named Insured and list the **City** as both an Additional Insured and a Loss Payee as its interest may appear.

22.1.4(a) Policies of such insurance shall specify that, in the event a loss occurs at an occupied facility, occupancy of such facility is permitted without the consent of the issuing insurance company.

22.1.4(b) Such insurance may be provided through an Installation Floater, at the **Contractor's** option, if it otherwise conforms with the requirements of this Article 22.1.4.

22.1.5 Commercial Automobile Liability Insurance: The **Contractor** shall provide Commercial Automobile Liability Insurance for liability arising out of ownership,

maintenance or use of any owned (if any), non-owned and hired vehicles to be used in connection with this **Contract**. Coverage shall be at least as broad as the latest edition of ISO Form CA0001. If vehicles are used for transporting hazardous materials, the Automobile Liability Insurance shall be endorsed to provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90.

22.1.6 Contractors Pollution Liability Insurance: If specified in Schedule A of the General Conditions, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Contractors Pollution Liability Insurance covering bodily injury and property damage. Such insurance shall provide coverage for actual, alleged or threatened emission, discharge, dispersal, seepage, release or escape of pollutants (including asbestos), including any loss, cost or expense incurred as a result of any cleanup of pollutants (including asbestos) or in the investigation, settlement or defense of any claim, action, or proceedings arising from the operations under this **Contract**. Such insurance shall be in the **Contractor's** name and list the **City** as an Additional Insured and any other entity specified in Schedule A. Coverage shall include, without limitation, (a) loss of use of damaged property or of property that has not been physically injured, (b) transportation, and (c) non-owned disposal sites.

22.1.6(a) Coverage for the **City** as Additional Insured shall specifically include the **City's** officials and employees and be at least as broad as provided to the **Contractor** for this **Project**.

22.1.6(b) If such insurance is written on a claims-made policy, such policy shall have a retroactive date on or before the effective date of this **Contract**, and continuous coverage shall be maintained, or an extended discovery period exercised, for a period of not less than three (3) years from the time the **Work** under this **Contract** is completed.

22.1.7 Marine Insurance:

22.1.7(a) Marine Protection and Indemnity Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such Work to maintain, Marine Protection and Indemnity Insurance with coverage at least as broad as Form SP-23. The insurance shall provide coverage for the **Contractor** or **Subcontractor** (whichever is doing this **Work**) and for the **City** (together with its officials and employees) and any other entity specified in Schedule A as an Additional Insured for bodily injury and property damage arising from marine operations under this **Contract**. Coverage shall include, without limitation, injury or death of crew members (if not fully provided through other insurance), removal of wreck, damage to piers, wharves and other fixed or floating objects and loss of or damage to any other vessel or craft, or to property on such other vessel or craft.

22.1.7(b) Hull and Machinery Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such **Work** to maintain, Hull and Machinery Insurance with coverage for the **Contractor** or **Subcontractor** (whichever is doing this Work) and for the **City** (together with its officials and employees) as Additional Insured at least as broad as the latest edition of American Institute Tug Form for all tugs used under this

Contract and Collision Liability at least as broad as the latest edition of American Institute Hull Clauses.

22.1.7(c) Marine Pollution Liability Insurance: If specified in Schedule A of the General Conditions or if the **Contractor** engages in marine operations in the execution of any part of the **Work**, the **Contractor** shall maintain, or cause the **Subcontractor** doing such Work to maintain, Marine Pollution Liability Insurance covering itself (or the Subcontractor doing such Work) as Named Insured and the **City** (together with its officials and employees) and any other entity specified in Schedule A as an Additional Insured. Coverage shall be at least as broad as that provided by the latest edition of Water Quality Insurance Syndicate Form and include, without limitation, liability arising from the discharge or substantial threat of a discharge of oil, or from the release or threatened release of a hazardous substance including injury to, or economic losses resulting from, the destruction of or damage to real property, personal property or natural resources.

22.1.8 The **Contractor** shall provide such other types of insurance, at such minimum limits and with such conditions, as are specified in Schedule A of the General Conditions.

22.2 General Requirements for Insurance Coverage and Policies:

22.2.1 All required insurance policies shall be maintained with companies that may lawfully issue the required policy and have an A.M. Best rating of at least A-/VII or a Standard and Poor's rating of at least A, unless prior written approval is obtained from the **City** Corporation Counsel.

22.2.2 The **Contractor** shall be solely responsible for the payment of all premiums for all required policies and all deductibles and self-insured retentions to which such policies are subject, whether or not the **City** is an insured under the policy.

22.2.3 In his/her sole discretion, the **Commissioner** may, subject to the approval of the **Comptroller** and the **City** Corporation Counsel, accept Letters of Credit and/or custodial accounts in lieu of required insurance.

22.2.4 The **City's** limits of coverage for all types of insurance required pursuant to Schedule A of the General Conditions shall be the greater of (i) the minimum limits set forth in Schedule A or (ii) the limits provided to the **Contractor** as Named Insured under all primary, excess, and umbrella policies of that type of coverage.

22.2.5 The **Contractor** may satisfy its insurance obligations under this Article 22 through primary policies or a combination of primary and excess/umbrella policies, so long as all policies provide the scope of coverage required herein.

22.2.6 Policies of insurance provided pursuant to this Article 22 shall be primary and non-contributing to any insurance or self-insurance maintained by the **City**.

22.3 Proof of Insurance:

22.3.1 For all types of insurance required by Article 22.1 and Schedule A, except for insurance required by Articles 22.1.4 and 22.1.7, the **Contractor** shall file proof of insurance in accordance with this Article 22.3 within ten (10) **Days** of award. For insurance

provided pursuant to Articles 22.1.4 and 22.1.7, proof shall be filed by a date specified by the **Commissioner** or ten (10) **Days** prior to the commencement of the portion of the **Work** covered by such policy, whichever is earlier.

22.3.2 For Workers' Compensation Insurance provided pursuant to Article 22.1.2, the **Contractor** shall submit one of the following forms: C-105.2 Certificate of Workers' Compensation Insurance; U-26.3 - State Insurance Fund Certificate of Workers' Compensation Insurance; Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the **Commissioner**. For Disability Benefits Insurance provided pursuant to Article 22.1.2, the Contractor shall submit DB-120.1 - Certificate Of Insurance Coverage Under The NYS Disability Benefits Law, Request for WC/DB Exemption (Form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to reaccessor forms used by the New York State Workers' Compensation form CE-200); equivalent or successor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to reaccessor forms used by the New York State Workers' Compensation Board; or other proof of insurance in a form acceptable to the **Commissioner**. ACORD forms are not acceptable.

22.3.3 For policies provided pursuant to all of Article 22.1 other than Article 22.1.2, the **Contractor** shall submit one or more Certificates of Insurance on forms acceptable to the **Commissioner**. All such Certificates of Insurance shall certify (a) the issuance and effectiveness of such policies of insurance, each with the specified minimum limits (b) for insurance secured pursuant to Article 22.1.1 that the **City** and any other entity specified in Schedule A is an Additional Insured thereunder; (c) in the event insurance is required pursuant to Article 22.1.6 and/or Article 22.1.7, that the City is an Additional Insured thereunder; (d) the company code issued to the insurance company by the National Association of Insurance Commissioners (the NAIC number); and (e) the number assigned to the **Contract** by the **City**. All such Certificates of Insurance shall be accompanied by either a duly executed "Certification by Insurance Broker or Agent" in the form contained in Part III of Schedule A or copies of all policies referenced in such Certificate of Insurance as certified by an authorized representative of the issuing insurance carrier. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

22.3.4 Documentation confirming renewals of insurance shall be submitted to the **Commissioner** prior to the expiration date of coverage of policies required under this **Contract**. Such proofs of insurance shall comply with the requirements of Articles 22.3.2 and 22.3.3.

22.3.5 The **Contractor** shall be obligated to provide the **City** with a copy of any policy of insurance provided pursuant to this Article 22 upon the demand for such policy by the **Commissioner** or the **City** Corporation Counsel.

22.4 Operations of the **Contractor**:

22.4.1 The **Contractor** shall not commence the **Work** unless and until all required certificates have been submitted to and accepted by the **Commissioner**. Acceptance by the **Commissioner** of a certificate does not excuse the **Contractor** from securing insurance consistent with all provisions of this Article 22 or of any liability arising from its failure to do so.

22.4.2 The **Contractor** shall be responsible for providing continuous insurance coverage in the manner, form, and limits required by this **Contract** and shall be authorized to perform **Work** only during the effective period of all required coverage.

22.4.3 In the event that any of the required insurance policies lapse, are revoked, suspended or otherwise terminated, for whatever cause, the **Contractor** shall immediately stop all **Work**, and shall not recommence **Work** until authorized in writing to do so by the **Commissioner**. Upon quitting the **Site**, except as otherwise directed by the **Commissioner**, the **Contractor** shall leave all plant, materials, equipment, tools, and supplies on the **Site**. **Contract** time shall continue to run during such periods and no extensions of time will be granted. The **Commissioner** may also declare the **Contractor** in default for failure to maintain required insurance.

22.4.4 In the event the **Contractor** receives notice, from an insurance company or other person, that any insurance policy required under this Article 22 shall be cancelled or terminated (or has been cancelled or terminated) for any reason, the **Contractor** shall immediately forward a copy of such notice to both the **Commissioner** and the New York City Comptroller, attn: Office of Contract Administration, Municipal Building, One Centre Street, room 1005, New York, New York 10007. Notwithstanding the foregoing, the **Contractor** shall ensure that there is no interruption in any of the insurance coverage required under this Article 22.

22.4.5 Where notice of loss, damage, occurrence, accident, claim or suit is required under an insurance policy maintained in accordance with this Article 22, the **Contractor** shall notify in writing all insurance carriers that issued potentially responsive policies of any such event relating to any operations under this **Contract** (including notice to Commercial General Liability insurance carriers for events relating to the **Contractor**'s own employees) no later than 20 days after such event. For any policy where the **City** is an Additional Insured, such notice shall expressly specify that "this notice is being given on behalf of the City of New York as Insured as well as the Named Insured." Such notice shall also contain the following information: the number of the insurance policy, the name of the named insured, the date and location of the damage, occurrence, or accident, and the identity of the persons or things injured, damaged or lost. The **Contractor** shall simultaneously send a copy of such notice to the City of New York c/o Insurance Claims Specialist, Affirmative Litigation Division, New York City Law Department, 100 Church Street, New York, New York 10007.

22.4.6 In the event of any loss, accident, claim, action, or other event that does or can give rise to a claim under any insurance policy required under this Article 22, the **Contractor** shall at all times fully cooperate with the **City** with regard to such potential or actual claim.

22.5 Subcontractor Insurance: In the event the Contractor requires any Subcontractor to procure insurance with regard to any operations under this Contract and requires such Subcontractor to name the Contractor as an Additional Insured thereunder, the Contractor shall ensure that the Subcontractor name the City, including its officials and employees, as an Additional Insured with coverage at least as broad as the most recent edition of ISO Form CG 20 26.

22.6 Wherever reference is made in Article 7 or this Article 22 to documents to be sent to the **Commissioner** (e.g., notices, filings, or submissions), such documents shall be sent to the address set forth in Schedule A of the General Conditions. In the event no address is set forth in Schedule A, such documents are to be sent to the **Commissioner's** address as provided elsewhere in this **Contract**.

22.7 Apart from damages or losses covered by insurance provided pursuant to Articles 22.1.2, 22.1.3, or 22.1.5, the **Contractor** waives all rights against the **City**, including its officials and employees, for any damages or losses that are covered under any insurance required under this Article 22 (whether or

not such insurance is actually procured or claims are paid thereunder) or any other insurance applicable to the operations of the **Contractor** and/or its employees, agents, or **Subcontractors**.

22.8 In the event the **Contractor** utilizes a self-insurance program to satisfy any of the requirements of this Article 22, the **Contractor** shall ensure that any such self-insurance program provides the **City** with all rights that would be provided by traditional insurance under this Article 22, including but not limited to the defense and indemnification obligations that insurers are required to undertake in liability policies.

22.9 Materiality/Non-Waiver: The **Contractor's** failure to secure policies in complete conformity with this Article 22, or to give an insurance company timely notice of any sort required in this **Contract** or to do anything else required by this Article 22 shall constitute a material breach of this **Contract**. Such breach shall not be waived or otherwise excused by any action or inaction by the **City** at any time.

22.10 Pursuant to General Municipal Law Section 108, this **Contract** shall be void and of no effect unless **Contractor** maintains Workers' Compensation Insurance for the term of this **Contract** to the extent required and in compliance with the New York State Workers' Compensation Law.

22.11 Other Remedies: Insurance coverage provided pursuant to this Article 22 or otherwise shall not relieve the **Contractor** of any liability under this **Contract**, nor shall it preclude the **City** from exercising any rights or taking such other actions available to it under any other provisions of this **Contract** or **Law**.

ARTICLE 23. MONEY RETAINED AGAINST CLAIMS

23.1 If any claim shall be made by any person or entity (including **Other Contractors** with the **City** on this **Project**) against the **City** or against the **Contractor** and the **City** for any of the following:

(a) An alleged loss, damage, injury, theft or vandalism of any of the kinds referred to in Articles 7 and 12, plus the reasonable costs of defending the **City**, which in the opinion of the **Comptroller** may not be paid by an insurance company (for any reason whatsoever); or

(b) An infringement of copyrights, patents or use of patented articles, tools, etc., as referred to in Article 57; or

(c) Damage claimed to have been caused directly or indirectly by the failure of the **Contractor** to perform the **Work** in strict accordance with this **Contract**,

the amount of such claim, or so much thereof as the **Comptroller** may deem necessary, may be withheld by the **Comptroller**, as security against such claim, from any money due hereunder. The **Comptroller**, in his/her discretion, may permit the **Contractor** to substitute other satisfactory security in lieu of the monies so withheld.

23.2 If an action on such claim is timely commenced and the liability of the **City**, or the **Contractor**, or both, shall have been established therein by a final judgment of a court of competent jurisdiction, or if such claim shall have been admitted by the **Contractor** to be valid, the **Comptroller** shall pay such judgment or admitted claim out of the monies retained by the **Comptroller** under the provisions of this Article 23, and return the balance, if any, without interest, to the **Contractor**.

ARTICLE 24. MAINTENANCE AND GUARANTY

24.1 The **Contractor** shall promptly repair, replace, restore or rebuild, as the **Commissioner** may determine, any finished **Work** in which defects of materials or workmanship may appear or to which damage may occur because of such defects, during the one (1) year period subsequent to the date of **Substantial Completion** (or use and occupancy in accordance with Article 16), except where other periods of maintenance and guaranty are provided for in Schedule A.

24.2 As security for the faithful performance of its obligations hereunder, the **Contractor**, upon filing its requisition for payment on **Substantial Completion**, shall deposit with the **Commissioner** a sum equal to one (1%) percent of the price (or the amount fixed in Schedule A of the General Conditions) in cash or certified check upon a state or national bank and trust company or a check of such bank and trust company signed by a duly authorized officer thereof and drawn to the order of the **Comptroller**, or obligations of the **City**, which the **Comptroller** may approve as of equal value with the sum so required.

24.3 In lieu of the above, the **Contractor** may make such security payment to the **City** by authorizing the **Commissioner** in writing to deduct the amount from the **Substantial Completion** payment which shall be deemed the deposit required above.

24.4 If the **Contractor** has faithfully performed all of its obligations hereunder the **Commissioner** shall so certify to the **Comptroller** within five (5) **Days** after the expiration of one (1) year from the date of **Substantial Completion** and acceptance of the **Work** or within thirty (30) **Days** after the expiration of the guarantee period fixed in the **Specifications**. The security payment shall be repaid to the **Contractor** without interest within thirty (30) **Days** after certification by the **Commissioner** to the **Comptroller** that the **Contractor** has faithfully performed all of its obligations hereunder.

24.5 Notice by the **Commissioner** to the **Contractor** to repair, replace, rebuild or restore such defective or damaged **Work** shall be timely, pursuant to this article, if given not later than ten (10) **Days** subsequent to the expiration of the one (1) year period or other periods provided for herein.

24.6 If the **Contractor** shall fail to repair, replace, rebuild or restore such defective or damaged **Work** promptly after receiving such notice, the **Commissioner** shall have the right to have the **Work** done by others in the same manner as provided for in the completion of a defaulted **Contract**, under Article 51.

24.7 If the security payment so deposited is insufficient to cover the cost of such Work, the **Contractor** shall be liable to pay such deficiency on demand by the **Commissioner**.

24.8 The **Engineer's** certificate setting forth the fair and reasonable cost of repairing, replacing, rebuilding or restoring any damaged or defective **Work** when performed by one other than the **Contractor**, shall be binding and conclusive upon the **Contractor** as to the amount thereof.

24.9 The **Contractor** shall obtain all manufacturers' warranties and guaranties of all equipment and materials required by this **Contract** in the name of the **City** and shall deliver same to the **Commissioner**. All of the **City's** rights and title and interest in and to said manufacturers' warranties and guaranties may be assigned by the **City** to any subsequent purchasers of such equipment and materials or lessees of the premises into which the equipment and materials have been installed.

CHAPTER VI: CHANGES, EXTRA WORK, AND DOCUMENTATION OF CLAIM

ARTICLE 25. CHANGES

25.1 Changes may be made to this **Contract** only as duly authorized in writing by the **Commissioner** in accordance with the **Law** and this **Contract**. All such changes, modifications, and amendments will become a part of the **Contract**. Work so ordered shall be performed by the **Contractor**.

25.2 Contract changes will be made only for Work necessary to complete the Work included in the original scope of the Contract and/or for non-material changes to the scope of the Contract. Changes are not permitted for any material alteration in the scope of Work in the Contract.

25.3 The **Contractor** shall be entitled to a price adjustment for **Extra Work** performed pursuant to a written change order. Adjustments to price shall be computed in one or more of the following ways:

25.3.1 By applicable unit prices specified in the Contract; and/or

25.3.2 By agreement of a fixed price; and/or

25.3.3 By time and material records; and/or

25.3.4 In any other manner approved by the CCPO.

25.4 All payments for change orders are subject to pre-audit by the **Engineering Audit Officer** and may be post-audited by the **Comptroller** and/or the **Agency**.

ARTICLE 26. METHODS OF PAYMENT FOR OVERRUNS AND EXTRA WORK

26.1 Overrun of Unit Price Item: An overrun is any quantity of a unit price item which the **Contractor** is directed to provide which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule.

26.1.1For any unit price item, the **Contractor** will be paid at the unit price bid for any quantity up to one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule. If during the progress of the **Work**, the actual quantity of any unit price item required to complete the **Work** approaches the estimated quantity for that item, and for any reason it appears that the actual quantity of any unit price item necessary to complete the **Work** will exceed the estimated quantity for that item by twenty-five (25%) percent, the **Contractor** shall immediately notify the **Engineer** of such anticipated overrun. The **Contractor** shall not be compensated for any quantity of a unit price item provided which is in excess of one hundred twenty-five (125%) percent of the estimated quantity for that item set forth in the bid schedule without written authorization from the **Engineer**.

26.1.2 If the actual quantity of any unit price item necessary to complete the **Work** will exceed one hundred twenty five (125%) percent of the estimated quantity for that item set forth in the bid schedule, the **City** reserves the right and the **Contractor** agrees to negotiate a new unit price for such item. In no event shall such negotiated new unit price exceed the unit bid price. If the **City** and **Contractor** cannot agree on a new unit price, then the **City** shall order the **Contractor** and the **Contractor** agrees to provide additional quantities of

the item on the basis of time and material records for the actual and reasonable cost as determined under Article 26.2, but in no event at a unit price exceeding the unit price bid.

26.2 Extra Work: For Extra Work where payment is by agreement on a fixed price in accordance with Article 25.3.2, the price to be paid for such Extra Work shall be based on the fair and reasonable estimated cost of the items set forth below. For Extra Work where payment is based on time and material records in accordance with Article 25.3.3, the price to be paid for such Extra Work shall be the actual and reasonable cost of the items set forth below, calculated in accordance with the formula specified therein, if any.

26.2.1 Necessary materials (including transportation to the **Site**); plus

26.2.2 Necessary direct labor, including payroll taxes (subject to statutory wage caps) and supplemental benefits; plus

26.2.3 Sales and personal property taxes, if any, required to be paid on materials not incorporated into such **Extra Work**; plus

26.2.4 Reasonable rental value of Contractor-owned (or Subcontractor-owned, as applicable), necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per operating hour: (.035) x (HP rating) x (Fuel cost/gallon). Reasonable rental value is defined as the lower of either seventy-five percent of the monthly prorated rental rates established in "The AED Green Book, Rental Rates and Specifications for Construction Equipment" published by Equipment Watch (the "Green Book"), or seventy-five percent of the monthly prorated rental rates established in the "Rental Rate Blue Book for Construction Equipment" published by Equipment Watch (the "Blue Book") (the applicable Blue Book rate being for rental only without the addition of any operational costs listed in the Blue Book). The reasonable rental value is deemed to be inclusive of all operating costs except for fuel/energy consumption and equipment operator's wages/costs. For multiple shift utilization, reimbursement shall be calculated as follows: first shift shall be seventy-five (75%) percent of such rental rates; second shift shall be sixty (60%) percent of the first shift rate; and third shift shall be forty (40%) percent of the first shift rate. Equipment on standby shall be reimbursed at one-third (1/3) the prorated monthly rental rate. Contractor-owned (or Subcontractor-owned, as applicable) equipment includes equipment from rental companies affiliated with or controlled by the Contractor (or Subcontractor, as applicable), as determined by the Commissioner. In establishing cost reimbursement for non-operating Contractor-owned (or Subcontractor-owned, as applicable) equipment (scaffolding, sheeting systems, road plates, etc.), the City may restrict reimbursement to a purchase-salvage/life cycle basis if less than the computed rental costs; plus

- 26.2.5 Necessary installation and dismantling of such plant and equipment, including transportation to and from the **Site**, if any, provided that, in the case of non-**Contractor**-owned (or non-**Subcontractor**-owned, as applicable) equipment rented from a third party, the cost of installation and dismantling are not allowable if such costs are included in the rental rate; plus
- 26.2.6 Necessary fees charged by governmental entities; plus

26.2.7 Necessary construction-related service fees charged by non-governmental entities, such as landfill tipping fees; plus

26.2.8 Reasonable rental costs of non-**Contractor**-owned (or non-**Subcontractor**-owned, as applicable) necessary plant and equipment other than **Small Tools**, plus fuel/energy costs. Except for fuel costs for pick-up trucks which shall be reimbursed based on a consumption of five (5) gallons per shift, fuel costs shall be reimbursed based on actual costs or, in the absence of auditable documentation, the following fuel consumption formula per hour of operation: (.035) x (HP rating) x (Fuel cost/gallon). In lieu of renting, the **City** reserves the right to direct the purchase of non-operating equipment (scaffolding, sheeting systems, road plates, etc.), with payment on a purchase-salvage/life cycle basis, if less than the projected rental costs; plus

26.2.9 Workers' Compensation Insurance, and any insurance coverage expressly required by the **City** for the performance of the **Extra Work** which is different than the types of insurance required by Article 22 and Schedule A of the General Conditions. The cost of Workers' Compensation Insurance is subject to applicable payroll limitation caps and shall be based upon the carrier's Manual Rate for such insurance derived from the applicable class Loss Cost ("LC") and carrier's Lost Cost Multiplier ("LCM") approved by the New York State Department of Financial Services, and with the exception of experience rating, rate modifiers as promulgated by the New York Compensation Insurance Rating Board ("NYCIRB"); plus

26.2.10 Additional costs incurred as a result of the **Extra Work** for performance and payment bonds; plus

26.2.11 Twelve percent (12%) percent of the total of items in Articles 26.2.1 through 26.2.5 as compensation for overhead, except that no percentage for overhead will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes. Overhead shall include without limitation, all costs and expenses in connection with administration, management superintendence, small tools, and insurance required by Schedule A of the General Conditions other than Workers' Compensation Insurance; plus

26.2.12 Ten (10%) percent of the total of items in Articles 26.2.1 through 26.2.5, plus the items in Article 26.2.11, as compensation for profit, except that no percentage for profit will be allowed on **Payroll Taxes** or on the premium portion of overtime pay or on sales and personal property taxes; plus

26.2.13 Five (5%) percent of the total of items in Articles 26.2.6 through 26.2.10 as compensation for overhead and profit.

26.3 Where the **Extra Work** is performed in whole or in part by other than the **Contractor's** own forces pursuant to Article 26.2, the **Contractor** shall be paid, subject to pre-audit by the **Engineering Audit Officer**, the cost of such **Work** computed in accordance with Article 26.2 above, plus an additional allowance of five (5%) percent to cover the **Contractor's** overhead and profit.

26.4 Where a change is ordered, involving both **Extra Work** and omitted or reduced **Contract Work**, the **Contract** price shall be adjusted, subject to pre-audit by the **EAO**, in an amount based on the difference between the cost of such **Extra Work** and of the omitted or reduced **Work**.

26.5 Where the **Contractor** and the **Commissioner** can agree upon a fixed price for **Extra Work** in accordance with Article 25.3.2 or another method of payment for **Extra Work** in accordance with

Article 25.3.4, or for **Extra Work** ordered in connection with omitted **Work**, such method, subject to pre-audit by the **EAO**, may, at the option of the **Commissioner**, be substituted for the cost plus a percentage method provided in Article 26.2; provided, however, that if the **Extra Work** is performed by a **Subcontractor**, the **Contractor** shall not be entitled to receive more than an additional allowance of five (5%) percent for overhead and profit over the cost of such **Subcontractor's Work** as computed in accordance with Article 26.2.

ARTICLE 27. RESOLUTION OF DISPUTES

27.1 All disputes between the **City** and the **Contractor** of the kind delineated in this Article 27.1 that arise under, or by virtue of, this **Contract** shall be finally resolved in accordance with the provisions of this Article 27 and the **PPB** Rules. This procedure for resolving all disputes of the kind delineated herein shall be the exclusive means of resolving any such disputes.

27.1.1 This Article 27 shall not apply to disputes concerning matters dealt with in other sections of the **PPB** Rules, or to disputes involving patents, copyrights, trademarks, or trade secrets (as interpreted by the courts of New York State) relating to proprietary rights in computer software.

27.1.2 This Article 27 shall apply only to disputes about the scope of Work delineated by the Contract, the interpretation of Contract documents, the amount to be paid for Extra Work or disputed work performed in connection with the Contract, the conformity of the Contractor's Work to the Contract, and the acceptability and quality of the Contractor's Work; such disputes arise when the Engineer, Resident Engineer, Engineering Audit Officer, or other designee of the Commissioner makes a determination with which the Contractor disagrees.

27.2 All determinations required by this Article 27 shall be made in writing clearly stated, with a reasoned explanation for the determination based on the information and evidence presented to the party making the determination. Failure to make such determination within the time required by this Article 27 shall be deemed a non-determination without prejudice that will allow application to the next level.

27.3 During such time as any dispute is being presented, heard, and considered pursuant to this Article 27, the **Contract** terms shall remain in force and the **Contractor** shall continue to perform **Work** as directed by the **ACCO** or the **Engineer**. Failure of the **Contractor** to continue **Work** as directed shall constitute a waiver by the **Contractor** of its claim.

27.4 Presentation of Disputes to Commissioner.

Notice of Dispute and Agency Response. The **Contractor** shall present its dispute in writing ("Notice of Dispute") to the **Commissioner** within thirty (30) Days of receiving written notice of the determination or action that is the subject of the dispute. This notice requirement shall not be read to replace any other notice requirements contained in the **Contract**. The Notice of Dispute shall include all the facts, evidence, documents, or other basis upon which the **Contractor** relies in support of its position, as well as a detailed computation demonstrating how any amount of money claimed by the **Contractor** in the dispute was arrived at. Within thirty (30) Days after receipt of the detailed written submission comprising the complete Notice of Dispute, the **Engineer**, **Resident Engineer**, **Engineering Audit Officer**, or other designee of the **Commissioner** shall submit to the **Commissioner** all materials he or she deems pertinent to the dispute. Following initial submissions to the **Commissioner**, either party may demand of the other the production of any document or other material the demanding party believes may be relevant to the dispute. The requested party shall produce all relevant materials that are not otherwise

protected by a legal privilege recognized by the courts of New York State. Any question of relevancy shall be determined by the **Commissioner** whose decision shall be final. Willful failure of the **Contractor** to produce any requested material whose relevancy the **Contractor** has not disputed, or whose relevancy has been affirmatively determined, shall constitute a waiver by the **Contractor** of its claim.

27.4.1 **Commissioner** Inquiry. The **Commissioner** shall examine the material and may, in his or her discretion, convene an informal conference with the **Contractor**, the **ACCO**, and the **Engineer**, **Resident Engineer**, **Engineering Audit Officer**, or other designee of the **Commissioner** to resolve the issue by mutual consent prior to reaching a determination. The **Commissioner** may seek such technical or other expertise as he or she shall deem appropriate, including the use of neutral mediators, and require any such additional material from either or both parties as he or she deems fit. The **Commissioner**'s ability to render, and the effect of, a decision hereunder shall not be impaired by any negotiations in connection with the dispute presented, whether or not the **Commissioner** participated therein. The **Commissioner** may or, at the request of any party to the dispute, shall compel the participation of any **Other Contractor** with a contract related to the **Work** of this **Contract**, and that **Contractor** shall be bound by the decision of the **Commissioner**. Any **Other Contractor** thus brought into the dispute resolution proceeding shall have the same rights and obligations under this Article 27 as the **Contractor** initiating the dispute.

27.4.2 **Commissioner** Determination. Within thirty (30) **Days** after the receipt of all materials and information, or such longer time as may be agreed to by the parties, the **Commissioner** shall make his or her determination and shall deliver or send a copy of such determination to the **Contractor**, the **ACCO**, and **Engineer**, **Resident Engineer**, **Engineering Audit Officer**, or other designee of the **Commissioner**, as applicable, together with a statement concerning how the decision may be appealed.

27.4.3 Finality of **Commissioner's** Decision. The **Commissioner's** decision shall be final and binding on all parties, unless presented to the Contract Dispute Resolution Board pursuant to this Article 27. The **City** may not take a petition to the Contract Dispute Resolution Board. However, should the **Contractor** take such a petition, the **City** may seek, and the Contract Dispute Resolution Board may render, a determination less favorable to the **Contractor** and more favorable to the **City** than the decision of the **Commissioner**.

27.5 Presentation of Dispute to the **Comptroller**. Before any dispute may be brought by the **Contractor** to the Contract Dispute Resolution Board, the **Contractor** must first present its claim to the **Comptroller** for his or her review, investigation, and possible adjustment.

27.5.1 Time, Form, and Content of Notice. Within thirty (30) **Days** of its receipt of a decision by the **Commissioner**, the **Contractor** shall submit to the **Comptroller** and to the **Commissioner** a Notice of Claim regarding its dispute with the **Agency**. The Notice of Claim shall consist of (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written decision of the **Commissioner**; and (iii) a copy of all materials submitted by the **Contractor** to the **Agency**, including the Notice of Dispute. The **Contractor** may not present to the **Comptroller** any material not presented to the **Commissioner**, except at the request of the **Comptroller**.

27.5.2 Response. Within thirty (30) **Days** of receipt of the Notice of Claim, the **Agency** shall make available to the **Comptroller** a copy of all material submitted by the **Agency** to the **Commissioner** in connection with the dispute. The **Agency** may not present to the **Comptroller** any material not presented to the **Commissioner** except at the request of the **Comptroller**.

27.5.3 **Comptroller** Investigation. The **Comptroller** may investigate the claim in dispute and, in the course of such investigation, may exercise all powers provided in Sections 7-201 and 7-203 of the Administrative Code. In addition, the **Comptroller** may demand of either party, and such party shall provide, whatever additional material the **Comptroller** deems pertinent to the claim, including original business records of the **Contractor**. Willful failure of the **Contractor** to produce within fifteen (15) **Days** any material requested by the **Comptroller** shall constitute a waiver by the **Contractor** of its claim. The **Comptroller** may also schedule an informal conference to be attended by the **Contractor**, **Agency** representatives, and any other personnel desired by the **Comptroller**.

27.5.4 Opportunity of **Comptroller** to Compromise or Adjust Claim. The **Comptroller** shall have forty-five (45) **Days** from his or her receipt of all materials referred to in Article 27.5.3 to investigate the disputed claim. The period for investigation and compromise may be further extended by agreement between the **Contractor** and the **Comptroller**, to a maximum of ninety (90) **Days** from the **Comptroller's** receipt of all materials. The **Contractor** may not present its petition to the Contract Dispute Resolution Board until the period for investigation and compromise delineated in this Article 27.5.4 has expired. In compromising or adjusting any claim hereunder, the **Comptroller** may not revise or disregard the terms of the **Contract** between the parties.

27.6 Contract Dispute Resolution Board. There shall be a Contract Dispute Resolution Board composed of:

27.6.1 The chief administrative law judge of the Office of Administrative Trials and Hearings (OATH) or his/her designated OATH administrative law judge, who shall act as chairperson, and may adopt operational procedures and issue such orders consistent with this Article 27 as may be necessary in the execution of the Contract Dispute Resolution Board's functions, including, but not limited to, granting extensions of time to present or respond to submissions;

27.6.2 The **CCPO** or his/her designee; any designee shall have the requisite background to consider and resolve the merits of the dispute and shall not have participated personally and substantially in the particular matter that is the subject of the dispute or report to anyone who so participated; and

27.6.3 A person with appropriate expertise who is not an employee of the **City**. This person shall be selected by the presiding administrative law judge from a prequalified panel of individuals, established and administered by OATH with appropriate background to act as decision-makers in a dispute. Such individual may not have a contract or dispute with the **City** or be an officer or employee of any company or organization that does, or regularly represents persons, companies, or organizations having disputes with the **City**.

27.7 Petition to the Contract Dispute Resolution Board. In the event the claim has not been settled or adjusted by the **Comptroller** within the period provided in this Article 27, the **Contractor**,

within thirty (30) **Days** thereafter, may petition the Contract Dispute Resolution Board to review the **Commissioner's** determination.

27.7.1 Form and Content of Petition by **Contractor**. The **Contractor** shall present its dispute to the Contract Dispute Resolution Board in the form of a petition, which shall include (i) a brief written statement of the substance of the dispute, the amount of money, if any, claimed, and the reason(s) the **Contractor** contends the dispute was wrongly decided by the **Commissioner**; (ii) a copy of the written Decision of the **Commissioner**, (iii) copies of all materials submitted by the **Contractor** to the Agency; (iv) a copy of the written decision of the **Comptroller**, if any, and (v) copies of all correspondence with, or written material submitted by the **Contractor**, to the **Comptroller**. The **Contractor** shall concurrently submit four (4) complete sets of the Petition: one set to the **City** Corporation Counsel (Attn: Commercial and Real Estate Litigation Division) and three (3) sets to the **Contractor** shall submit a copy of the written statement of the substance of the dispute, cited in (i) above, to both the **Commissioner** and the **Comptroller**.

27.7.2 Agency Response. Within thirty (30) Days of its receipt of the Petition by the City Corporation Counsel, the Agency shall respond to the brief written statement of the Contractor and make available to the Contract Dispute Resolution Board all material it submitted to the Commissioner and Comptroller. Three (3) complete copies of the Agency response shall be provided to the Contract Dispute Resolution Board and one to the Contractor. Extensions of time for submittal of the Agency response shall be given as necessary upon a showing of good cause or, upon consent of the parties, for an initial period of up to thirty (30) Days.

27.7.3 Further Proceedings. The Contract Dispute Resolution Board shall permit the **Contractor** to present its case by submission of memoranda, briefs, and oral argument. The Contract Dispute Resolution Board shall also permit the **Agency** to present its case in response to the **Contractor** by submission of memoranda, briefs, and oral argument. If requested by the **City** Corporation Counsel, the **Comptroller** shall provide reasonable assistance in the preparation of the **Agency's** case. Neither the **Contractor** nor the **Agency** may support its case with any documentation or other material that was not considered by the **Comptroller**, unless requested by the Contract Dispute Resolution Board, in its discretion, may seek such technical or other expert advice as it shall deem appropriate and may seek, on its own or upon application of a party, any such additional material from any party as it deems fit. The Contract Dispute Resolution Board, in its discretion, more than one dispute between the parties for concurrent resolution.

27.7.4 Contract Dispute Resolution Board Determination. Within forty-five (45) **Days** of the conclusion of all written submissions and oral arguments, the Contract Dispute Resolution Board shall render a written decision resolving the dispute. In an unusually complex case, the Contract Dispute Resolution Board may render its decision in a longer period, not to exceed ninety (90) **Days**, and shall so advise the parties at the commencement of this period. The Contract Dispute Resolution Board's decision must be consistent with the terms of the **Contract**. Decisions of the Contract Dispute Resolution Board and shall only resolve matters before the Contract Dispute Resolution Board and shall not have precedential effect with respect to matters not before the Contract Dispute Resolution Board.

27.7.5 Notification of Contract Dispute Resolution Board Decision. The Contract Dispute Resolution Board shall send a copy of its decision to the **Contractor**, the **ACCO**, the Engineer, the **Comptroller**, the **City** Corporation Counsel, the CCPO, and the **PPB**. A decision in favor of the **Contractor** shall be subject to the prompt payment provisions of the **PPB** Rules. The Required Payment Date shall be thirty (30) Days after the date the parties are formally notified of the Contract Dispute Resolution Board's decision.

27.7.6 Finality of Contract Dispute Resolution Board Decision. The Contract Dispute Resolution Board's decision shall be final and binding on all parties. Any party may seek review of the Contract Dispute Resolution Board's decision solely in the form of a challenge, filed within four (4) months of the date of the Contract Dispute Resolution Board's decision, in a court of competent jurisdiction of the State of New York, County of New York pursuant to Article 78 of the Civil Practice Law and Rules. Such review by the court shall be limited to the question of whether or not the Contract Dispute Resolution Board's decision was made in violation of lawful procedure, was affected by an error of Law, or was arbitrary and capricious or an abuse of discretion. No evidence or information shall be introduced or relied upon in such proceeding that was not presented to the Contract Dispute Resolution Board in accordance with this Article 27.

27.8 Any termination, cancellation, or alleged breach of the **Contract** prior to or during the pendency of any proceedings pursuant to this Article 27 shall not affect or impair the ability of the **Commissioner** or Contract Dispute Resolution Board to make a binding and final decision pursuant to this Article 27.

ARTICLE 28. RECORD KEEPING FOR EXTRA OR DISPUTED WORK OR WORK ON A TIME & MATERIALS BASIS

28.1 While the **Contractor** or any of its **Subcontractors** is performing **Work** on a time and material basis or **Extra Work** on a time and material basis ordered by the **Commissioner** under Article 25, or where the **Contractor** believes that it or any of its **Subcontractors** is performing **Extra Work** but a final determination by **Agency** has not been made, or the **Contractor** or any of its **Subcontractors** is performing disputed **Work** (whether on or off the **Site**), or complying with a determination or order under protest in accordance with Articles 11, 27, and 30, in each such case the **Contractor** shall furnish the **Resident Engineer** daily with three (3) copies of written statements signed by the **Contractor's** representative at the **Site** showing:

28.1.1 The name, trade, and number of each worker employed on such **Work** or engaged in complying with such determination or order, the number of hours employed, and the character of the **Work** each is doing; and

28.1.2 The nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such **Work** or compliance with such determination or order, and from whom purchased or rented.

28.2 A copy of such statement will be countersigned by the **Resident Engineer**, noting thereon any items not agreed to or questioned, and will be returned to the **Contractor** within two (2) **Days** after submission.

28.3 The **Contractor** and its **Subcontractors**, when required by the **Commissioner**, or the **Comptroller**, shall also produce for inspection, at the office of the **Contractor** or **Subcontractor**, any and all of its books, bid documents, financial statements, vouchers, records, daily job diaries and reports,

and cancelled checks, and any other documents relating to showing the nature and quantity of the labor, materials, plant and equipment actually used in the performance of such **Work**, or in complying with such determination or order, and the amounts expended therefor, and shall permit the **Commissioner** and the **Comptroller** to make such extracts thereform, or copies thereof, as they or either of them may desire.

28.4 In connection with the examination provided for herein, the **Commissioner**, upon demand therefor, will produce for inspection by the **Contractor** such records as the **Agency** may have with respect to such **Extra Work** or disputed **Work** performed under protest pursuant to order of the **Commissioner**, except those records and reports which may have been prepared for the purpose of determining the accuracy and validity of the **Contractor's** claim.

28.5 Failure to comply strictly with these requirements shall constitute a waiver of any claim for extra compensation or damages on account of the performance of such **Work** or compliance with such determination or order.

ARTICLE 29. OMITTED WORK

29.1 If any **Contract Work** in a lump sum **Contract**, or if any part of a lump sum item in a unit price, lump sum, or percentage-bid **Contract** is omitted by the **Commissioner** pursuant to Article 33, the **Contract** price, subject to audit by the EAO, shall be reduced by a pro rata portion of the lump sum bid amount based upon the percent of **Work** omitted subject to Article 29.4. For the purpose of determining the pro rata portion of the lump sum bid amount, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be the determining factor.

29.2 If the whole of a lump sum item or units of any other item is so omitted by the **Commissioner** in a unit price, lump sum, or percentage-bid **Contract**, then no payment will be made therefor except as provided in Article 29.4.

29.3 For units that have been ordered but are only partially completed, the unit price shall be reduced by a pro rata portion of the unit price bid based upon the percentage of **Work** omitted subject to Article 29.4.

29.4 In the event the **Contractor**, with respect to any omitted **Work**, has purchased any noncancelable material and/or equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated into the **Work**, the **Contractor** shall be paid for such material and/or equipment in accordance with Article 64.2.1(b); provided, however, such payment is contingent upon the **Contractor's** delivery of such material and/or equipment in acceptable condition to a location designated by the **City**.

29.5 The **Contractor** agrees to make no claim for damages or for loss of overhead and profit with regard to any omitted **Work**.

ARTICLE 30. NOTICE AND DOCUMENTATION OF COSTS AND DAMAGES; PRODUCTION OF FINANCIAL RECORDS

30.1 If the **Contractor** shall claim to be sustaining damages by reason of any act or omission of the **City** or its agents, it shall submit to the **Commissioner** within forty-five (45) **Days** from the time such damages are first incurred, and every thirty (30) **Days** thereafter to the extent additional damages are being incurred for the same condition, verified statements of the details and the amounts of such

damages, together with documentary evidence of such damages. The **Contractor** may submit any of the above statements within such additional time as may be granted by the **Commissioner** in writing upon written request therefor. Failure of the **Commissioner** to respond in writing to a written request for additional time within thirty (30) **Days** shall be deemed a denial of the request. On failure of the **Contractor** to strictly comply with the foregoing provisions, such claims shall be deemed waived and no right to recover on such claims shall exist. Damages that the **Contractor** may claim in any action or dispute resolution procedure arising under or by reason of this **Contract** shall not be different from or in excess of the statements and documentation made pursuant to this Article 30. This Article 30.1 does not apply to claims submitted to the **Commissioner** pursuant to Article 11 or to claims disputing a determination under Article 27.

30.2 In addition to the foregoing statements, the **Contractor** shall, upon notice from the **Commissioner**, produce for examination at the **Contractor's** office, by the **Engineer**, **Architect** or **Project Manager**, all of its books of account, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**, and submit itself and persons in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.3 In addition to the statements required under Article 28 and this Article 30, the **Contractor** and/or its **Subcontractor** shall, within thirty (30) **Days** upon notice from the **Commissioner** or **Comptroller**, produce for examination at the **Contractor's** and/or **Subcontractor's** office, by a representative of either the **Commissioner** or **Comptroller**, all of its books of account, bid documents, financial statements, accountant workpapers, bills, invoices, payrolls, subcontracts, time books, daily reports, bank deposit books, bank statements, check books, and cancelled checks, showing all of its acts and transactions in connection with or relating to or arising by reason of this **Contract**. Further, the **Contractor** and/or its **Subcontractor** shall submit any person in its employment, for examination under oath by any person designated by the **Commissioner** or **Comptroller** to investigate claims made or disputes against the **City** under this **Contract**. At such examination, a duly authorized representative of the **Contractor** may be present.

30.4 Unless the information and examination required under Article 30.3 is provided by the **Contractor** and/or its **Subcontractor** upon thirty (30) **Days'** notice from the **Commissioner** or **Comptroller**, or upon the **Commissioner's** or **Comptroller's** written authorization to extend the time to comply, the **City** shall be released from all claims arising under, relating to or by reason of this **Contract**, except for sums certified by the **Commissioner** to be due under the provisions of this **Contract**. It is further stipulated and agreed that no person has the power to waive any of the foregoing provisions and that in any action or dispute resolution procedure against the **City** to recover any sum in excess of the sums certified by the **Commissioner** to be due under or by reason of this **Contract**, the **Contractor** must allege in its complaint and prove, at trial or during such dispute resolution procedure, compliance with the provisions of this Article 30.

30.5 In addition, after the commencement of any action or dispute resolution procedure by the **Contractor** arising under or by reason of this **Contract**, the **City** shall have the right to require the **Contractor** to produce for examination under oath, up until the trial of the action or hearing before the Contract Dispute Resolution Board, the books and documents described in Article 30.3 and submit itself and all persons in its employ for examination under oath. If this Article 30 is not complied with as required, then the **Contractor** hereby consents to the dismissal of the action or dispute resolution procedure.

CHAPTER VII: POWERS OF THE RESIDENT ENGINEER, THE ENGINEER OR ARCHITECT AND THE COMMISSIONER

ARTICLE 31. THE RESIDENT ENGINEER

31.1 The **Resident Engineer** shall have the power to inspect, supervise, and control the performance of the **Work**, subject to review by the **Commissioner**. The **Resident Engineer** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

ARTICLE 32. THE ENGINEER OR ARCHITECT OR PROJECT MANAGER

32.1 The **Engineer** or **Architect** or **Project Manager**, in addition to those matters elsewhere herein delegated to the **Engineer** and expressly made subject to his/her determination, direction or approval, shall have the power, subject to review by the **Commissioner**:

32.1.1 To determine the amount, quality, and location of the **Work** to be paid for hereunder; and

32.1.2 To determine all questions in relation to the Work, to interpret the Contract Drawings, Specifications, and Addenda, and to resolve all patent inconsistencies or ambiguities therein; and

32.1.3 To determine how the **Work** of this **Contract** shall be coordinated with **Work** of **Other Contractors** engaged simultaneously on this **Project**, including the power to suspend any part of the **Work**, but not the whole thereof; and

32.1.4 To make minor changes in the **Work** as he/she deems necessary, provided such changes do not result in a net change in the cost to the **City** or to the **Contractor** of the **Work** to be done under the **Contract**; and

32.1.5 To amplify the **Contract Drawings**, add explanatory information and furnish additional **Specifications** and drawings, consistent with this **Contract**.

32.2 The foregoing enumeration shall not imply any limitation upon the power of the **Engineer** or **Architect** or **Project Manager**, for it is the intent of this **Contract** that all of the **Work** shall generally be subject to his/her determination, direction, and approval, except where the determination, direction or approval of someone other than the **Engineer** or **Architect** or **Project Manager** is expressly called for herein.

32.3 The **Engineer** or **Architect** or **Project Manager** shall not, however, have the power to issue an **Extra Work** order, except as specifically designated in writing by the **Commissioner**.

ARTICLE 33. THE COMMISSIONER

33.1 The **Commissioner**, in addition to those matters elsewhere herein expressly made subject to his/her determination, direction or approval, shall have the power:

33.1.1 To review and make determinations on any and all questions in relation to this **Contract** and its performance; and

33.1.2 To modify or change this **Contract** so as to require the performance of **Extra Work** (subject, however, to the limitations specified in Article 25) or the omission of **Contract Work**; and

33.1.3 To suspend the whole or any part of the **Work** whenever in his/her judgment such suspension is required:

33.1.3(a) In the interest of the City generally; or

33.1.3(b) To coordinate the **Work** of the various contractors engaged on this **Project** pursuant to the provisions of Article 12; or

33.1.3(c) To expedite the completion of the entire **Project** even though the completion of this particular **Contract** may thereby be delayed.

ARTICLE 34. NO ESTOPPEL

34.1 Neither the **City** nor any **Agency**, official, agent or employee thereof, shall be bound, precluded or estopped by any determination, decision, approval, order, letter, payment or certificate made or given under or in connection with this **Contract** by the **City**, the **Commissioner**, the **Engineer**, the **Resident Engineer**, or any other official, agent or employee of the **City**, either before or after the final completion and acceptance of the **Work** and payment therefor:

34.1.1 From showing the true and correct classification, amount, quality or character of the **Work** actually done; or that any such determination, decision, order, letter, payment or certificate was untrue, incorrect or improperly made in any particular, or that the **Work**, or any part thereof, does not in fact conform to the requirements of this **Contract**; and

34.1.2 From demanding and recovering from the **Contractor** any overpayment made to it, or such damages as the **City** may sustain by reason of the **Contractor's** failure to perform each and every part of its **Contract**.

CHAPTER VIII: LABOR PROVISIONS

ARTICLE 35. EMPLOYEES

35.1 The Contractor and its Subcontractors shall not employ on the Work:

35.1.1 Anyone who is not competent, faithful and skilled in the **Work** for which he/she shall be employed; and whenever the **Commissioner** shall inform the **Contractor**, in writing, that any employee is, in his/her opinion, incompetent, unfaithful or disobedient, that employee shall be discharged from the **Work** forthwith, and shall not again be employed upon it; or

35.1.2 Any labor, materials or means whose employment, or utilization during the course of this **Contract**, may tend to or in any way cause or result in strikes, work stoppages, delays, suspension of **Work** or similar troubles by workers employed by the **Contractor** or its **Subcontractors**, or by any of the trades working in or about the buildings and premises where **Work** is being performed under this **Contract**, or by **Other Contractors** or their **Subcontractors** pursuant to other contracts, or on any other building or premises owned or operated by the **City**, its **Agencies**, departments, boards or authorities. Any violation by the **Contractor** of this requirement may, upon certification of the **Commissioner**, be considered as proper and sufficient cause for declaring the **Contractor** to be in default, and for the **City** to take action against it as set forth in Chapter X of this **Contract**, or such other article of this **Contract** as the Commissioner may deem proper; or

35.1.3 In accordance with Section 220.3-e of the Labor Law of the State of New York (hereinafter "Labor Law"), the **Contractor** and its **Subcontractors** shall not employ on the **Work** any apprentice, unless he/she is a registered individual, under a bona fide program registered with the New York State Department of Labor. The allowable ratio of apprentices to journey-level workers in any craft classification shall not be greater than the ratio permitted to the **Contractor** as to its work force on any job under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered as above, shall be paid the wage rate determined by the **Comptroller** of the **City** for the classification of **Work** actually performed. The **Contractor** or **Subcontractor** will be required to furnish written evidence of the registration of its program and apprentices as well as all the appropriate ratios and wage rates, for the area of the construction prior to using any apprentices on the **Contract Work**.

35.2 If the total cost of the **Work** under this **Contract** is at least two hundred fifty thousand (\$250,000) dollars, all laborers, workers, and mechanics employed in the performance of the **Contract** on the public work site, either by the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by the **Contract**, shall be certified prior to performing any **Work** as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten (10) hours in duration.

35.3 In accordance with Local Law Nos. 30-2012 and 33-2012, codified at sections 6-132 and 12-113 of the Administrative Code, respectively,

35.3.1 The **Contractor** shall not take an adverse personnel action with respect to an officer or employee in retaliation for such officer or employee making a report of information concerning conduct which such officer or employee knows or reasonably believes to involve corruption, criminal activity, conflict of interest, gross mismanagement or abuse of authority by any officer or employee relating to this **Contract** to (a) the Commissioner of the Department of Investigation, (b) a member of the New York City Council, the Public Advocate, or the **Comptroller**, or (c) the **CCPO**, **ACCO**, **Agency** head, or **Commissioner**.

35.3.2 If any of the **Contractor**'s officers or employees believes that he or she has been the subject of an adverse personnel action in violation of Article 35.3.1, he or she shall be entitled to bring a cause of action against the **Contractor** to recover all relief necessary to make him or her whole. Such relief may include but is not limited to: (a) an injunction to restrain continued retaliation, (b) reinstatement to the position such employee would have had but for the retaliation or to an equivalent position, (c) reinstatement of full fringe benefits and seniority rights, (d) payment of two times back pay, plus interest, and (e) compensation for any special damages sustained as a result of the retaliation, including litigation costs and reasonable attorney's fees.

35.3.3 The **Contractor** shall post a notice provided by the **City** in a prominent and accessible place on any site where work pursuant to the **Contract** is performed that contains information about:

35.3.3(a) how its employees can report to the New York City Department of Investigation allegations of fraud, false claims, criminality or corruption arising out of or in connection with the **Contract**; and

35.3.3(b) the rights and remedies afforded to its employees under Administrative Code sections 7-805 (the New York City False Claims Act) and 12-113 (the Whistleblower Protection Expansion Act) for lawful acts taken in connection with the reporting of allegations of fraud, false claims, criminality or corruption in connection with the **Contract**.

35.3.4 For the purposes of this Article 35.3, "adverse personnel action" includes dismissal, demotion, suspension, disciplinary action, negative performance evaluation, any action resulting in loss of staff, office space, equipment or other benefit, failure to appoint, failure to promote, or any transfer or assignment or failure to transfer or assign against the wishes of the affected officer or employee.

35.3.5 This Article 35.3 is applicable to all of the **Contractor's Subcontractors** having subcontracts with a value in excess of \$100,000; accordingly, the **Contractor** shall include this rider in all subcontracts with a value a value in excess of \$100,000.

35.4 Article 35.3 is not applicable to this **Contract** if it is valued at \$100,000 or less. Articles 35.3.1, 35.3.2, 35.3.4, and 35.3.5 are not applicable to this **Contract** if it was solicited pursuant to a finding of an emergency.

35.5 Paid Sick Leave Law.

35.5.1 Introduction and General Provisions.

35.5.1(a) The Earned Sick Time Act, also known as the Paid Sick Leave Law ("PSLL"), requires covered employees who annually perform more than 80 hours of work in New York City to be provided with paid sick time.² Contractors of the **City** or of other governmental entities may be required to provide sick time pursuant to the PSLL.

35.5.1(b) The PSLL became effective on April 1, 2014, and is codified at Title 20, Chapter 8, of the New York City Administrative Code. It is administered by the City's Department of Consumer Affairs ("DCA"); DCA's rules promulgated under the PSLL are codified at Chapter 7 of Title 6 of the Rules of the City of New York ("Rules").

 $^{^2}$ Pursuant to the PSLL, if fewer than five employees work for the same employer, as determined pursuant to New York City Administrative Code § 20-912(g), such employer has the option of providing such employees uncompensated sick time.

35.5.1(c) The **Contractor** agrees to comply in all respects with the PSLL and the Rules, and as amended, if applicable, in the performance of this **Contract**. The **Contractor** further acknowledges that such compliance is a material term of this **Contract** and that failure to comply with the PSLL in performance of this **Contract** may result in its termination.

35.5.1(d) The **Contractor** must notify the **Agency Chief Contracting Officer** of the **Agency** with whom it is contracting in writing within ten (10) days of receipt of a complaint (whether oral or written) regarding the PSLL involving the performance of this **Contract**. Additionally, the **Contractor** must cooperate with DCA's education efforts and must comply with DCA's subpoenas and other document demands as set forth in the PSLL and Rules.

35.5.1(e) The PSLL is summarized below for the convenience of the **Contractor**. The **Contractor** is advised to review the PSLL and Rules in their entirety. On the website www.nyc.gov/PaidSickLeave there are links to the PSLL and the associated Rules as well as additional resources for employers, such as Frequently Asked Questions, timekeeping tools and model forms, and an event calendar of upcoming presentations and webinars at which the **Contractor** can get more information about how to comply with the PSLL. The **Contractor** acknowledges that it is responsible for compliance with the PSLL notwithstanding any inconsistent language contained herein.

35.5.2 Pursuant to the PSLL and the Rules: Applicability, Accrual, and Use.

35.5.2(a) An employee who works within the City of New York for more than eighty hours in any consecutive 12-month period designated by the employer as its "calendar year" pursuant to the PSLL ("Year") must be provided sick time. Employers must provide a minimum of one hour of sick time for every 30 hours worked by an employee and compensation for such sick time must be provided at the greater of the employee's regular hourly rate or the minimum wage. Employers are not required to provide more than 40 hours of sick time to an employee in any Year.

35.5.2(b) An employee has the right to determine how much sick time he or she will use, provided that employers may set a reasonable minimum increment for the use of sick time not to exceed four hours per **Day**. In addition, an employee may carry over up to 40 hours of unused sick time to the following Year, provided that no employer is required to allow the use of more than forty hours of sick time in a Year or carry over unused paid sick time if the employee is paid for such unused sick time and the employer provides the employee with at least the legally required amount of paid sick time for such employee for the immediately subsequent Year on the first **Day** of such Year.

35.5.2(c) An employee entitled to sick time pursuant to the PSLL may use sick time for any of the following:

- i. such employee's mental illness, physical illness, injury, or health condition or the care of such illness, injury, or condition or such employee's need for medical diagnosis or preventive medical care;
- ii. such employee's care of a family member (an employee's child, spouse, domestic partner, parent, sibling, grandchild or grandparent, or the child or parent of an employee's spouse or domestic partner) who has a mental

illness, physical illness, injury or health condition or who has a need for medical diagnosis or preventive medical care;

- iii. closure of such employee's place of business by order of a public official due to a public health emergency; or
- iv. such employee's need to care for a child whose school or childcare provider has been closed due to a public health emergency.

35.5.2(d) An employer must not require an employee, as a condition of taking sick time, to search for a replacement. However, an employer may require an employee to provide: reasonable notice of the need to use sick time; reasonable documentation that the use of sick time was needed for a reason above if for an absence of more than three consecutive work days; and/or written confirmation that an employee used sick time pursuant to the PSLL. However, an employer may not require disclosure of the details of a medical condition or otherwise require disclosure of the details of a medical condition as a condition of providing sick time and health information obtained solely due to an employee's use of sick time pursuant to the PSLL must be treated by the employer as confidential.

35.5.2(e) If an employer chooses to impose any permissible discretionary requirement as a condition of using sick time, it must provide to all employees a written policy containing those requirements, using a delivery method that reasonably ensures that employees receive the policy. If such employer has not provided its written policy, it may not deny sick time to an employee because of non-compliance with such a policy.

35.5.2(f) Sick time to which an employee is entitled must be paid no later than the payday for the next regular payroll period beginning after the sick time was used.

35.5.3 Exemptions and Exceptions. Notwithstanding the above, the PSLL does not apply to any of the following:

35.5.3(a) an independent contractor who does not meet the definition of employee under section 190(2) of the New York State Labor Law;

35.5.3(b) an employee covered by a valid collective bargaining agreement in effect on April 1, 2014, until the termination of such agreement;

35.5.3(c) an employee in the construction or grocery industry covered by a valid collective bargaining agreement if the provisions of the PSLL are expressly waived in such collective bargaining agreement;

35.5.3(d) an employee covered by another valid collective bargaining agreement if such provisions are expressly waived in such agreement and such agreement provides a benefit comparable to that provided by the PSLL for such employee;

35.5.3(e) an audiologist, occupational therapist, physical therapist, or speech language pathologist who is licensed by the New York State Department of Education and who calls in for work assignments at will, determines his or her own schedule, has the ability to reject or accept any assignment referred to him or her, and is paid an average hourly wage that is at least four times the federal minimum wage;

35.5.3(f) an employee in a work study program under Section 2753 of Chapter 42 of the United States Code;

35.5.3(g) an employee whose work is compensated by a qualified scholarship program as that term is defined in the Internal Revenue Code, Section 117 of Chapter 20 of the United States Code; or

35.5.3(h) a participant in a Work Experience Program (WEP) under section 336c of the New York State Social Services Law.

35.5.4 Retaliation Prohibited. An employer may not threaten or engage in retaliation against an employee for exercising or attempting in good faith to exercise any right provided by the PSLL. In addition, an employer may not interfere with any investigation, proceeding, or hearing pursuant to the PSLL.

35.5.5 Notice of Rights.

35.5.5(a) An employer must provide its employees with written notice of their rights pursuant to the PSLL. Such notice must be in English and the primary language spoken by an employee, provided that DCA has made available a translation into such language. Downloadable notices are available on DCA's website at http://www.nyc.gov/html/dca/html/law/PaidSickLeave.shtml.

35.5.5(b) Any person or entity that willfully violates these notice requirements is subject to a civil penalty in an amount not to exceed fifty dollars for each employee who was not given appropriate notice.

35.5.6 Records. An employer must retain records documenting its compliance with the PSLL for a period of at least three years, and must allow DCA to access such records in furtherance of an investigation related to an alleged violation of the PSLL.

35.5.7 Enforcement and Penalties.

35.5.7(a) Upon receiving a complaint alleging a violation of the PSLL, DCA has the right to investigate such complaint and attempt to resolve it through mediation. Within 30 **Days** of written notification of a complaint by DCA, or sooner in certain circumstances, the employer must provide DCA with a written response and such other information as DCA may request. If DCA believes that a violation of the PSLL has occurred, it has the right to issue a notice of violation to the employer.

35.5.7(b) DCA has the power to grant an employee or former employee all appropriate relief as set forth in New York City Administrative Code § 20-924(d). Such relief may include, among other remedies, treble damages for the wages that should have been paid, damages for unlawful retaliation, and damages and reinstatement for unlawful discharge. In addition, DCA may impose on an employer found to have violated the PSLL civil penalties not to exceed \$500 for a first violation, \$750 for a second violation within two years of the first violation, and \$1,000 for each succeeding violation within two years of the previous violation.

35.5.8 More Generous Polices and Other Legal Requirements. Nothing in the PSLL is intended to discourage, prohibit, diminish, or impair the adoption or retention of a more generous sick time policy, or the obligation of an employer to comply with any contract,

collective bargaining agreement, employment benefit plan or other agreement providing more generous sick time. The PSLL provides minimum requirements pertaining to sick time and does not preempt, limit or otherwise affect the applicability of any other law, regulation, rule, requirement, policy or standard that provides for greater accrual or use by employees of sick leave or time, whether paid or unpaid, or that extends other protections to employees. The PSLL may not be construed as creating or imposing any requirement in conflict with any federal or state law, rule or regulation.

35.6 HireNYC: Hiring and Reporting Requirements. This Article 35.6 applies to construction contracts of \$1,000,000 or more. The **Contractor** shall comply with the requirements of Articles 35.6.1-35.6.5 for all non-trades jobs (e.g., for an administrative position arising out of **Work** ant located in New York City). The **Contractor** shall reasonably cooperate with SBS and the **City** on specific outreach events, including "Hire-on-the-Spot" events, for the hiring of trades workers in connection with the **Work**. If provided elsewhere in this **Contract**, this **Contract** is subject to a project labor agreement.

35.6.1 Enrollment. The **Contractor** shall enroll with the HireNYC system, found at www.nyc.gov/sbs, within thirty (30) days after the registration of this **Contract** pursuant to Section 328 of the New York City Charter. The **Contractor** shall provide information about the business, designate a primary contact and say whether it intends to hire for any entry to mid-level job opportunities arising from this **Contract** and located in New York City, and, if so, the approximate start date of the first hire.

35.6.2 Job Posting Requirements.

35.6.2(a) Once enrolled in HireNYC, the **Contractor** agrees to update the HireNYC portal with all entry to mid-level job opportunities arising from this **Contract** and located in New York City, if any, which shall be defined as jobs requiring no more than an associate degree, as provided by the New York State Department of Labor (see Column F of https://labor.ny.gov/stats/2012-2022- NYS-Employment-Prospects.xls). The information to be updated includes the types of entry and mid-level positions made available from the work arising from the **Contract** and located in New York City, the number of positions, the anticipated schedule of initiating the hiring process for these positions, and the contact information for the **Contractor's** representative charged with overseeing hiring. The **Contractor** must update the HireNYC portal with any hiring needs arising from the contract and located in New York City, and the requirements of the jobs to be filled, no less than three weeks prior to the intended first day of employment for each new position, except with the permission of SBS, not to be unreasonably withheld, and must also update the HireNYC portal as set forth below.

35.6.2(b) After enrollment through HireNYC and submission of relevant information, SBS will work with the **Contractor** to develop a recruitment plan which will outline the candidate screening process, and will provide clear instructions as to when, where, and how interviews will take place. HireNYC will screen applicants based on employer requirements and refer applicants whom it believes are qualified to the **Contractor** for interviews. The **Contractor** must interview referred applicants whom it believes are qualified.

35.6.2(c) After completing an interview of a candidate referred by HireNYC, the **Contractor** must provide feedback via the portal within twenty (20) business days to indicate which candidates were interviewed and hired, if any. In addition, the **Contractor** shall provide the start date of new hires, and additional information

reasonably related to such hires, within twenty (20) business days after the start date. In the event the **Contractor** does not have any job openings covered by this Rider in any given year, the **Contractor** shall be required to provide an annual update to HireNYC to that effect. For this purpose, the reporting year shall run from the date of the registration of the **Contract** pursuant to Charter section 328 and each anniversary date.

35.6.2(d) These requirements do not limit the **Contractor's** ability to assess the qualifications of prospective workers, and to make final hiring and retention decisions. No provision of this Article 35.6 shall be interpreted so as to require the **Contractor** to employ any particular worker.

35.6.2(e) In addition, the provisions of this Article 35.6 shall not apply to positions that the **Contractor** intends to fill with employees employed pursuant to the job retention provision of Section 22-505 of the Administrative Code of the City of New York. The **Contractor** shall not be required to report such openings with HireNYC. However, the **Contractor** shall enroll with the HireNYC system pursuant to Article 35.6.1, above, and, if such positions subsequently become open, then the remaining provisions of this Article 35.6 will apply.

35.6.3 Breach and Liquidated Damages. If the **Contractor** fails to comply with the terms of the **ContrSact** and this Article 35.6 (1) by not enrolling its business with HireNYC; (2) by not informing HireNYC, as required, of open positions; or (3) by failing to interview a qualified candidate, the **Agency** may assess liquidated damages in the amount of two-thousand five hundred dollars (\$2,500) per breach. For all other events of noncompliance with the terms of this Article 35.6, the **Agency** may assess liquidated damages in the amount of five hundred dollars (\$500) per breach. Furthermore, in the event the **Contractor** breaches the requirements of this Article 35.6 during the term of the **Contract**, the **City** may hold the **Contractor** in default of this **Contract**.

35.6.4 Audit Compliance. In addition to the auditing requirements set forth in other parts of the **Contract**, the **Contractor** shall permit SBS and the **City** to inspect any and all records concerning or relating to job openings or the hiring of individuals for work arising from the **Contract** and located in New York City. The **Contractor** shall permit an inspection within seven (7) business days of the request.

35.6.5 Other Reporting Requirements. The **Contractor** shall report to the **City**, on a monthly basis, all information reasonably requested by the **City** that is necessary for the **City** to comply with any reporting requirements imposed by **Law**, including any requirement that the **City** maintain a publicly accessible database. In addition, the **Contractor** agrees to comply with all reporting requirements imposed by **Law**, or as otherwise requested by the **City**.

35.6.6 Federal Hiring Requirements. If this **Contract** is federally funded (as indicated elsewhere in this Contract), the **Contractor** shall comply with all federal hiring requirements as may be set forth in this **Contract**, including, as applicable: (a) Section 3 of the HUD Act of 1968, which requires, to the greatest extent feasible, economic opportunities for 30 percent of new hires be given to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing and Executive Order 11246, which prohibits discrimination in employment due to race, color, religion, sex or national origin, and requires the implementation of goals for minority and female participation for work involving any construction trade.

ARTICLE 36. NO DISCRIMINATION

36.1 The **Contractor** specifically agrees, as required by Labor Law Section 220-e, as amended, that:

36.1.1 In the hiring of employees for the performance of **Work** under this **Contract** or any subcontract hereunder, neither the **Contractor**, **Subcontractor**, nor any person acting on behalf of such **Contractor** or **Subcontractor**, shall by reason of race, creed, color 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;

36.1.2 Neither the **Contractor**, **Subcontractor**, nor any person on its behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of **Work** under this **Contract** on account of race, creed, color or national origin;

36.1.3 There may be deducted from the amount payable to the **Contractor** by the **City** under this **Contract** a penalty of fifty (\$50.00) dollars for each person for each **Day** during which such person was discriminated against or intimidated in violation of the provisions of this **Contract**; and

36.1.4 This **Contract** may be cancelled or terminated by the **City** 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 Article 36.

36.1.5 This Article 36 covers all construction, alteration and repair of any public building or public work occurring in the State of New York and the manufacture, sale, and distribution of materials, equipment, and supplies to the extent that such operations are performed within the State of New York pursuant to this **Contract**.

36.2 The **Contractor** specifically agrees, as required by Section 6-108 of the Administrative Code, as amended, that:

36.2.1 It shall be unlawful for any person engaged in the construction, alteration or repair of buildings or engaged in the construction or repair of streets or highways pursuant to a **Contract** with the **City** or engaged in the manufacture, sale or distribution of materials, equipment or supplies pursuant to a **Contract** with the **City** to refuse to employ or to refuse to continue in any employment any person on account of the race, color or creed of such person.

36.2.2 It shall be unlawful for any person or any servant, agent or employee of any person, described in Article 36.1.2, to ask, indicate or transmit, orally or in writing, directly or indirectly, the race, color or creed or religious affiliation of any person employed or seeking employment from such person, firm or corporation.

36.2.3 Breach of the foregoing provisions shall be deemed a violation of a material provision of this **Contract**.

36.2.4 Any person, or the employee, manager or owner of or officer of such firm or corporation who shall violate any of the provisions of this Article 36.2 shall, upon

conviction thereof, be punished by a fine of not more than one hundred (\$100.00) dollars or by imprisonment for not more than thirty (30) **Days**, or both.

36.3 This **Contract** is subject to the requirements of Executive Order No. 50 (1980) ("E.O. 50"), as revised, and the rules and regulations promulgated thereunder. No contract will be awarded unless and until these requirements have been complied with in their entirety. By signing this **Contract**, the **Contractor** agrees that it:

36.3.1 Will not engage in any unlawful discrimination against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, marital status or sexual orientation with respect to all employment decisions including, but not limited to, recruitment, hiring, upgrading, demotion, downgrading, transfer, training, rates of pay or other forms of compensation, layoff, termination, and all other terms and conditions of employment; and

36.3.2 Will not engage in any unlawful discrimination in the selection of **Subcontractors** on the basis of the owner's race, color, creed, national origin, sex, age, disability, marital status or sexual orientation; and

36.3.3 Will state in all solicitations or advertisements for employees placed by or on behalf of the **Contractor** that all qualified applicants will receive consideration for employment without unlawful discrimination based on race, creed, color, national origin, sex, age, citizens status, disability, marital status, sexual orientation, or that it is an equal employment opportunity employer; and

36.3.4 Will send to each labor organization or representative of workers with which it has a collective bargaining agreement or other contract or memorandum of understanding, written notification of its equal employment opportunity commitments under E.O. 50 and the rules and regulations promulgated thereunder; and

36.3.5 Will furnish, before the award of the **Contract**, all information and reports, including an employment report, that are required by E.O. 50, the rules and regulations promulgated thereunder, and orders of the **City** Department of Business Services, Division of Labor Services (**DLS**) and will permit access to its books, records, and accounts by the **DLS** for the purposes of investigation to ascertain compliance with such rules, regulations, and orders.

36.4 The **Contractor** understands that in the event of its noncompliance with the nondiscrimination clauses of this **Contract** or with any of such rules, regulations, or orders, such noncompliance shall constitute a material breach of this **Contract** and noncompliance with E.O. 50 and the rules and regulations promulgated thereunder. After a hearing held pursuant to the rules of the **DLS**, the Director of the **DLS** may direct the **Commissioner** to impose any or all of the following sanctions:

36.4.1 Disapproval of the **Contractor**; and/or

36.4.2 Suspension or termination of the Contract; and/or

36.4.3 Declaring the **Contractor** in default; and/or

36.4.4 In lieu of any of the foregoing sanctions, the Director of the **DLS** may impose an employment program.

In addition to any actions taken under this **Contract**, failure to comply with E.O. 50 and the rules and regulations promulgated thereunder, in one or more instances, may result in a **City Agency** declaring the **Contractor** to be non-responsible in future procurements. The **Contractor** further agrees that it will refrain from entering into any **Contract** or **Contract** modification subject to E.O. 50 and the rules and regulations promulgated thereunder with a **Subcontractor** who is not in compliance with the requirements of E.O. 50 and the rules and regulations promulgated thereunder such as a regulation promulgated thereunder.

36.5 The **Contractor** specifically agrees, as required by Section 6-123 of the Administrative Code, that:

36.5.1 The **Contractor** will not engage in any unlawful discriminatory practice in violation of Title 8 of the Administrative Code; and

36.5.2 Any failure to comply with this Article 36.5 may subject the **Contractor** to the remedies set forth in Section 6-123 of the Administrative Code, including, where appropriate, sanctions such as withholding of payment, imposition of an employment program, finding the **Contractor** to be in default, cancellation of the **Contract**, or any other sanction or remedy provided by **Law** or **Contract**.

ARTICLE 37. LABOR LAW REQUIREMENTS

37.1 The **Contractor** shall strictly comply with all applicable provisions of the Labor Law, as amended. Such compliance is a material term of this **Contract**.

37.2 The **Contractor** specifically agrees, as required by Labor Law Sections 220 and 220-d, as amended, that:

37.2.1 Hours of **Work**: No laborer, worker, or mechanic in the employ of the **Contractor**, **Subcontractor** or other person doing or contracting to do the whole or a part of the **Work** contemplated by this **Contract** shall be permitted or required to work more than eight (8) hours in any one (1) **Day**, or more than five (5) **Days** in any one (1) week, except as provided in the Labor Law and in cases of extraordinary emergency including fire, flood, or danger to life or property, or in the case of national emergency when so proclaimed by the President of the United States of America.

37.2.2 In situations in which there are not sufficient laborers, workers, and mechanics who may be employed to carry on expeditiously the **Work** contemplated by this **Contract** as a result of such restrictions upon the number of hours and **Days** of labor, and the immediate commencement or prosecution or completion without undue delay of the **Work** is necessary for the preservation of the **Site** and/or for the protection of the life and limb of the persons using the same, such laborers, workers, and mechanics shall be permitted or required to work more than eight (8) hours in any one (1) **Day**; or five (5) **Days** in any one (1) week; provided, however, that upon application of any **Contractor**, the **Commissioner** shall have first certified to the Commissioner of Labor of the State of New York (hereinafter "Commissioner of Labor") that such public **Work** is of an important nature and that a delay in carrying it to completion would result in serious disadvantage to the public; and provided, further, that such Commissioner of Labor shall have determined that such an emergency does in fact exist as provided in Labor Law Section 220.2.

37.2.3 Failure of the **Commissioner** to make such a certification to the Commissioner of Labor shall not entitle the **Contractor** to damages for delay or for any cause whatsoever.

37.2.4 Prevailing Rate of Wages: The wages to be paid for a legal day's **Work** to laborers, workers, or mechanics employed upon the **Work** contemplated by this **Contract** or upon any materials to be used thereon shall not be less than the "prevailing rate of wage" as defined in Labor Law Section 220, and as fixed by the **Comptroller** in the attached Schedule of Wage Rates and in updated schedules thereof. The prevailing wage rates and supplemental benefits to be paid are those in effect at the time the **Work** is being performed.

37.2.5 Requests for interpretation or correction in the Information for Bidders includes all requests for clarification of the classification of trades to be employed in the performance of the **Work** under this **Contract**. In the event that a trade not listed in the **Contract** is in fact employed during the performance of this **Contract**, the **Contractor** shall be required to obtain from the **Agency** the prevailing wage rates and supplementary benefits for the trades used and to complete the performance of this **Contract** at the price at which the **Contract** was awarded.

37.2.6 Minimum Wages: Except for employees whose wage is required to be fixed pursuant to Labor Law Section 220, all persons employed by the **Contractor** and any **Subcontractor** in the manufacture or furnishing of the supplies, materials, or equipment, or the furnishing of work, labor, or services, used in the performance of this **Contract**, shall be paid, without subsequent deduction or rebate unless expressly authorized by **Law**, not less than the sum mandated by **Law**.

37.3 Working Conditions: No part of the **Work**, labor or services shall be performed or rendered by the **Contractor** in any plants, factories, buildings or surroundings or under working conditions which are unsanitary or hazardous or dangerous to the health and safety of employees engaged in the performance of this **Contract**. Compliance with the safety, sanitary, and factory inspection **Laws** of the state in which the **Work** is to be performed shall be prima facie evidence of compliance with this Article 37.3.

37.4 Prevailing Wage Enforcement: The **Contractor** agrees to pay for all costs incurred by the **City** in enforcing prevailing wage requirements, including the cost of any investigation conducted by or on behalf of the **Agency** or the **Comptroller**, where the **City** discovers a failure to comply with any of the requirements of this Article 37 by the **Contractor** or its **Subcontractor(s)**. The **Contractor** also agrees that, should it fail or refuse to pay for any such investigation, the **Agency** is hereby authorized to deduct from a **Contractor's** account an amount equal to the cost of such investigation.

37.4.1 The Labor Law Section 220 and Section 220-d, as amended, provide that this **Contract** shall be forfeited and no sum paid for any **Work** done hereunder on a second conviction for willfully paying less than:

37.4.1(a) The stipulated prevailing wage scale as provided in Labor Law section 220, as amended, or

37.4.1(b) The stipulated minimum hourly wage scale as provided in Labor Law section 220-d, as amended.

37.4.2 For any breach or violation of either working conditions (Article 37.3) or minimum wages (Article 37.2.6) provisions, the party responsible therefor shall be liable to the **City** for liquidated damages, which may be withheld from any amounts due on any contracts with the **City** of such party responsible, or may be recovered in actions brought by the **City**

Corporation Counsel in the name of the **City**, in addition to damages for any other breach of this **Contract**, for a sum equal to the amount of any underpayment of wages due to any employee engaged in the performance of this **Contract**. In addition, the **Commissioner** shall have the right to cancel contracts and enter into other contracts for the completion of the original contract, with or without public letting, and the original **Contractor** shall be liable for any additional cost. All sums withheld or recovered as deductions, rebates, refunds, or underpayment of wages hereunder, shall be held in a special deposit account and shall be paid without interest, on order of the **Comptroller**, directly to the employees who have been paid less than minimum rates of pay as set forth herein and on whose account such sums were withheld or recovered, provided that no claims by employees for such payments shall be entertained unless made within two (2) years from the date of actual notice to the **Contractor** of the withholding or recovery of such sums by the **City**.

37.4.3 A determination by the **Comptroller** that a **Contractor** and/or its **Subcontractor** willfully violated Labor Law Section 220 will be forwarded to the **City's** five District Attorneys for review.

37.4.4 The **Contractor's** or **Subcontractor's** noncompliance with this Article 37.4 and Labor Law Section 220 may result in an unsatisfactory performance evaluation and the **Comptroller** may also find and determine that the **Contractor** or **Subcontractor** willfully violated the New York Labor Law.

37.4.4(a) An unsatisfactory performance evaluation for noncompliance with this Article 37.4 may result in a determination that the **Contractor** is a non-responsible bidder on subsequent procurements with the **City** and thus a rejection of a future award of a contract with the **City**, as well as any other sanctions provided for by **Law**.

37.4.4(b) Labor Law Section 220-b, as amended, provides that when two (2) final determinations have been rendered against a **Contractor** or **Subcontractor** within any consecutive six (6) year period determining that such **Contractor** or **Subcontractor** has willfully failed to pay the prevailing rate of wages or to provide supplements in accordance with the Labor Law and this Article 37.4, whether such failures were concurrent or consecutive and whether or not such final determinations concerning separate public works projects are rendered simultaneously, such **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public works contract with the **City** for a period of five (5) years from the second final determination. If the final determination involves the falsification of payroll records or the kickback of wages or supplements, the **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public works contract with the **City** for a period of five (5) years from the falsification of payroll records or the kickback of wages or supplements, the **Contractor** or **Subcontractor** shall be ineligible to submit a bid on or be awarded any public works contract with the **City** for a period of five (5) years from the first final determination.

37.4.4(c) Labor Law Section 220, as amended, provides that the **Contractor** or **Subcontractor** found to have violated this Article 37.4 may be directed to make payment of wages or supplements including interest found to be due, and the **Contractor** or **Subcontractor** may be directed to make payment of a further sum as a civil penalty in an amount not exceeding twenty-five (25%) percent of the total amount found to be due.

37.5 The **Contractor** and its **Subcontractors** shall within ten (10) **Days** after mailing of a Notice of Award or written order, post in prominent and conspicuous places in each and every plant, factory, building, and structure where employees of the **Contractor** and its **Subcontractors** engaged in the

performance of this **Contract** are employed, notices furnished by the **City**, in relation to prevailing wages and supplements, minimum wages, and other stipulations contained in Sections 220 and 220-h of the Labor Law, and the **Contractor** and its **Subcontractors** shall continue to keep such notices posted in such prominent and conspicuous places until **Final Acceptance** of the supplies, materials, equipment, or **Work**, labor, or services required to be furnished or rendered under this **Contract**.

37.6 The **Contractor** shall strictly comply with all of the provisions of Articles 37.6.1 through 37.6.5, and provide for all workers, laborers or mechanics in its employ, the following:

37.6.1 Notices Posted At Site: Post, in a location designated by the City, schedules of prevailing wages and supplements for this **Project**, a copy of all re-determinations of such schedules for the **Project**, the Workers' Compensation Law Section 51 notice, all other notices required by Law to be posted at the Site, the City notice that this **Project** is a public works project on which each worker is entitled to receive the prevailing wages and supplements for the occupation at which he or she is working, and all other notices which the City directs the Contractor to post. The Contractor shall provide a surface for such notices which is satisfactory to the City. The Contractor shall maintain and keep current such notices in a legible manner and shall replace any notice or schedule which is damaged, defaced, illegible or removed for any reason. The Contractor shall post such notices until all Work on the Site is complete; and

37.6.2 Daily Site Sign-in Sheets: Maintain daily Site sign-in sheets, and require that Subcontractors maintain daily Site sign-in sheets for its employees, which include blank spaces for an employee's name to be both printed and signed, job title, date started and Social Security number, the time the employee began work and the time the employee left work, until Final Acceptance of the supplies, materials, equipment, or Work, labor, or services to be furnished or rendered under this Contract unless exception is granted by the Comptroller upon application by the Agency. In the alternative, subject to the approval of the CCPO, the Contractor and Subcontractor may maintain an electronic or biometric sign-in system, which provides the information required by this Article 37.6.2; and

37.6.3 Individual Employee Information Notices: Distribute a notice to each worker, laborer or mechanic employed under this **Contract**, in a form provided by the **Agency**, that this **Project** is a public works project on which each worker, laborer or mechanic is entitled to receive the prevailing rate of wages and supplements for the occupation at which he or she is working. If the total cost of the Work under this Contract is at least two hundred fifty thousand (\$250,000) dollars, such notice shall also include a statement that each worker, laborer or mechanic must be certified prior to performing any Work as having successfully completed a course in construction safety and health approved by the United States Department of Labor's Occupational Safety and Health Administration that is at least ten (10) hours in duration. Such notice shall be distributed to each worker before he or she starts performing any **Work** of this **Contract** and with the first paycheck after July first of each year. "Worker, laborer or mechanic" includes employees of the Contractor and all Subcontractors and all employees of suppliers entering the Site. At the time of distribution, the Contractor shall have each worker, laborer or mechanic sign a statement, in a form provided by the Agency, certifying that the worker has received the notice required by this Article 37.6.3, which signed statement shall be maintained with the payroll records required by this **Contract**; and

37.6.3(a) The **Contractor** and each **Subcontractor** shall notify each worker, laborer or mechanic employed under this **Contract** in writing of the prevailing rate of

wages for their particular job classification. Such notification shall be given to every worker, laborer, and mechanic on their first pay stub and with every pay stub thereafter; and

37.6.4 **Site** Laminated Identification Badges: The **Contractor** shall provide laminated identification badges which include a photograph of the worker's, laborer's or mechanic's face and indicate the worker's, laborer's or mechanic's name, trade, employer's name, and employment starting date (month/day/year). Further, the **Contractor** shall require as a condition of employment on the **Site**, that each and every worker, laborer or mechanic wear the laminated identification badge at all times and that it may be seen by any representative of the **City**. The **Commissioner** may grant a written waiver from the requirement that the laminated identification badge include a photograph if the **Contractor** demonstrates that the identity of an individual wearing a laminated identification badge can be easily verified by another method; and

37.6.5 Language Other Than English Used On Site: Provide the ACCO notice when three (3) or more employees (worker and/or laborer and/or mechanic) on the Site, at any time, speak a language other than English. The ACCO will then provide the Contractor the notices described in Article 37.6.1 in that language or languages as may be required. The Contractor is responsible for all distributions under this Article 37; and

37.6.6 Provision of Records: The **Contractor** and **Subcontractor(s)** shall produce within five (5) **Days** on the **Site** of the **Work** and upon a written order of the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, or the **Comptroller**, such records as are required to be kept by this Article 37.6; and

37.6.7 The **Contractor** and **Subcontractor(s)** shall pay employees by check or direct deposit. If this **Contract** is for an amount greater than one million (\$1,000,000) dollars, checks issued by the **Contractor** to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the **Agency**). For any subcontract for an amount greater than seven hundred fifty thousand (\$750,000) dollars, checks issued by a **Subcontractor** to covered employees shall be generated by a payroll service or automated payroll system (an in-house system may be used if approved by the **Agency**); and

37.6.8 The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of Articles 37.6.1 through 37.6.7 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

37.7 The **Contractor** and its **Subcontractors** shall keep such employment and payroll records as are required by Section 220 of the Labor Law. The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of this Article 37.7 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

37.8 At the time the **Contractor** makes application for each partial payment and for final payment, the **Contractor** shall submit to the **Commissioner** a written payroll certification, in the form provided by this **Contract**, of compliance with the prevailing wage, minimum wage, and other provisions and stipulations required by Labor Law Section 220 and of compliance with the training requirements of Labor Law Section 220-h set forth in Article 35.2. This certification of compliance shall be a condition precedent to payment and no payment shall be made to the **Contractor** unless and until each such certification shall have been submitted to and received by the **Commissioner**.

37.9 This **Contract** is executed by the **Contractor** with the express warranty and representation that the **Contractor** is not disqualified under the provisions of Section 220 of the Labor Law from the award of the **Contract**.

37.10 Any breach or violation of any of the foregoing shall be deemed a breach or violation of a material provision of this **Contract**, and grounds for cancellation thereof by the **City**.

ARTICLE 38. PAYROLL REPORTS

38.1 The **Contractor** and its **Subcontractor(s)** shall maintain on the **Site** during the performance of the **Work** the original payrolls or transcripts thereof which the **Contractor** and its **Subcontractor(s)** are required to maintain and shall submit such original payrolls or transcripts, subscribed and affirmed by it as true, within thirty (30) **Days** after issuance of its first payroll, and every thirty (30) **Days** thereafter, pursuant to Labor Law Section 220(3-a)(a)(iii). The **Contractor** and **Subcontractor(s)** shall submit such original payrolls or transcripts along with each and every payment requisition. If payment requisitions are not submitted at least once a month, the **Contractor** and its **Subcontractor(s)** shall submit original payrolls and transcripts both along with its payment requisitions and independently of its payment requisitions.

38.2 The **Contractor** shall maintain payrolls or transcripts thereof for six (6) years from the date of completion of the **Work** on this **Contract**. If such payrolls and transcripts are maintained outside of New York City after the completion of the **Work** and their production is required pursuant to this Article 38, the **Contractor** shall produce such records in New York City upon request by the City.

38.3 The Contractor and Subcontractor(s) shall comply with any written order, direction, or request made by the Engineer, the Commissioner, the ACCO, the Agency EAO, the Agency Labor Law Investigator(s), or the Comptroller, to provide to the requesting party any of the following information and/or records within five (5) Days of such written order, direction, or request:

38.3.1 Such original payrolls or transcripts thereof subscribed and affirmed by it as true and the statements signed by each worker pursuant to this Chapter VIII; and/or

38.3.2 Attendance sheets for each **Day** on which any employee of the **Contractor** and/or any of the **Subcontractor(s)** performed **Work** on the **Site**, which attendance sheet shall be in a form acceptable to the **Agency** and shall provide information acceptable to the **Agency** to identify each such employee; and/or

38.3.3 Any other information to satisfy the **Engineer**, the **Commissioner**, the **ACCO**, the **Agency EAO**, the **Agency Labor Law Investigator(s)** or the **Comptroller**, that this Chapter VIII and the Labor Law, as to the hours of employment and prevailing rates of wages and/or supplemental benefits, are being observed.

38.4 The failure of the **Contractor** or **Subcontractor(s)** to comply with the provisions of Articles 38.1 and/or 38.2 may result in the **Commissioner** declaring the **Contractor** in default and/or the withholding of payments otherwise due under the **Contract**.

ARTICLE 39. DUST HAZARDS

39.1 Should a harmful dust hazard be created in performing the **Work** of this **Contract**, for the elimination of which appliances or methods have been approved by the Board of Standards and Appeals

of the City of New York, such appliances and methods shall be installed, maintained, and effectively operated during the continuance of such harmful dust hazard. Failure to comply with this provision after notice shall make this **Contract** voidable at the sole discretion of the **City**.

CHAPTER IX: PARTIAL AND FINAL PAYMENTS

ARTICLE 40. CONTRACT PRICE

40.1 The City shall pay, and the Contractor agrees to accept, in full consideration for the Contractor's performance of the Work subject to the terms and conditions hereof, the lump sum price or unit prices for which this Contract was awarded, plus the amount required to be paid for any Extra Work ordered by the Commissioner under Article 25, less credit for any Work omitted pursuant to Article 29.

ARTICLE 41. BID BREAKDOWN ON LUMP SUM

41.1 Within fifteen (15) **Days** after the commencement date specified in the **Notice to Proceed** or **Order to Work**, unless otherwise directed by the **Resident Engineer**, the **Contractor** shall submit to the **Resident Engineer** a breakdown of its bid price, or of lump sums bid for items of the **Contract**, showing the various operations to be performed under the **Contract**, as directed in the progress schedule required under Article 9, and the value of each of such operations, the total of such items to equal the lump sum price bid. Said breakdown must be approved in writing by the **Resident Engineer**.

41.2 No partial payment will be approved until the **Contractor** submits a bid breakdown that is acceptable to the **Resident Engineer**.

41.3 The **Contractor** shall also submit such other information relating to the bid breakdown as directed by the **Resident Engineer**. Thereafter, the breakdown may be used only for checking the **Contractor's** applications for partial payments hereunder, but shall not be binding upon the **City**, the **Commissioner**, or the **Engineer** for any purpose whatsoever.

ARTICLE 42. PARTIAL PAYMENTS

42.1 From time to time as the **Work** progresses satisfactorily, but not more often than once each calendar month (except where the **Commissioner** approves in writing the submission of invoices on a more frequent basis and for invoices relating to **Work** performed pursuant to a change order), the **Contractor** may submit to the **Engineer** a requisition for a partial payment in the prescribed form, which shall contain an estimate of the quantity and the fair value of the **Work** done during the payment period.

42.2 Partial payments may be made for materials, fixtures, and equipment in advance of their actual incorporation in the **Work**, as the **Commissioner** may approve, and upon the terms and conditions set forth in the General Conditions.

42.3 The **Contractor** shall also submit to the **Commissioner** in connection with every application for partial payment a verified statement in the form prescribed by the **Comptroller** setting forth the information required under Labor Law Section 220-a.

42.4 Within thirty (30) **Days** after receipt of a satisfactory payment application, and within sixty (60) **Days** after receipt of a satisfactory payment application in relation to **Work** performed pursuant to a change order, the **Engineer** will prepare and certify, and the **Commissioner** will approve, a voucher for a partial payment in the amount of such approved estimate, less any and all deductions authorized to be made by the **Commissioner** under the terms of this **Contract** or by **Law**.

ARTICLE 43. PROMPT PAYMENT

43.1 The Prompt Payment provisions of the **PPB** Rules in effect at the time of the bid will be applicable to payments made under this **Contract**. The provisions require the payment to the **Contractor** of interest on payments made after the required payment date, except as set forth in the **PPB** Rules.

43.2 The **Contractor** shall submit a proper invoice to receive payment, except where the **Contract** provides that the **Contractor** will be paid at predetermined intervals without having to submit an invoice for each scheduled payment.

43.3 Determination of interest due will be made in accordance with the **PPB** Rules.

43.4 If the **Contractor** is paid interest, the proportionate share(s) of that interest shall be forwarded by the **Contractor** to its **Subcontractor(s)**.

43.5 The **Contractor** shall pay each **Subcontractor** or **Materialman** not later than seven (7) **Days** after receipt of payment out of amounts paid to the **Contractor** by the **City** for **Work** performed by the **Subcontractor** or **Materialman** under this **Contract**.

43.5.1 If **Contractor** fails to make any payment to any **Subcontractor** or **Materialman** within seven (7) **Days** after receipt of payment by the **City** pursuant to this Article 43.5, then the **Contractor** shall pay interest on amounts due to such **Subcontractor** or **Materialman** at the rate of interest in effect on the date such payment is made by the **Contractor** computed in accordance with Section 756-b (1)(b) of the New York General Business Law. Accrual of interest shall commence on the **Day** immediately following the expiration of the seventh **Day** following receipt of payment by the **Contractor** from the **City** and shall end on the date on which payment is made.

43.6 The **Contractor** shall include in each of its subcontracts a provision requiring each **Subcontractor** to make payment to each of its **Subcontractors** or **Materialmen** for **Work** performed under this **Contract** in the same manner and within the same time period set forth above.

ARTICLE 44. SUBSTANTIAL COMPLETION PAYMENT

44.1 The **Contractor** shall submit with the **Substantial Completion** requisition:

44.1.1 A final verified statement of any pending Article 27 disputes in accordance with the **PPB** Rules and this **Contract** and any and all alleged claims against the **City**, in any way connected with or arising out of this **Contract** (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) setting forth with respect to each such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the

Contractor claims the performance of the **Work** or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay.

44.1.1(a) With respect to each such claim, the **Commissioner**, the **Comptroller** and, in the event of litigation, the **City** Corporation Counsel shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 44.1.1(a) is intended to or shall relieve the **Contractor** from the obligation of complying strictly with Articles 11, 27, 28, and 30. The **Contractor** is warned that unless such claims are completely set forth as herein required, the **Contractor** upon acceptance of the **Substantial Completion** payment pursuant to this Article 44, will have waived any such claims.

44.1.2 A Final Approved Punch List.

44.1.3 Where required, a request for an extension of time to achieve Substantial Completion or final extension of time.

44.2 The **Commissioner** shall issue a voucher calling for payment of any part or all of the balance due for **Work** performed under the **Contract**, including monies retained under Article 21, less any and all deductions authorized to be made by the **Commissioner**, under this **Contract** or by **Law**, and less twice the amount the **Commissioner** considers necessary to ensure the completion of the balance of the **Work** by the **Contractor**. Such a payment shall be considered a partial and not a final payment. No **Substantial Completion** payment shall be made under this Article 44 where the **Contractor** failed to complete the **Work** within the time fixed for such completion in the Schedule A of the General Conditions, or within the time to which completion may have been extended, until an extension or extensions of time for the completion of **Work** have been acted upon pursuant to Article 13.

44.3 No further partial payments shall be made to the **Contractor** after **Substantial Completion**, except the **Substantial Completion** payment and payment pursuant to any **Contractor's** requisition that were properly filed with the **Commissioner** prior to the date of **Substantial Completion**; however, the **Commissioner** may grant a waiver for further partial payments after the date of **Substantial Completion** to permit payments for change order **Work** and/or release of retainage and deposits pursuant to Articles 21 and 24. Such waiver shall be in writing.

44.4 The **Contractor** acknowledges that nothing contained in this Article 44 is intended to or shall in any way diminish the force and effect of Article 13.

ARTICLE 45. FINAL PAYMENT

45.1 After completion and **Final Acceptance** of the **Work**, the **Contractor** shall submit all required certificates and documents, together with a requisition for the balance claimed to be due under the **Contract**, less the amount authorized to be retained for maintenance under Article 24. Such submission shall be within 90 days of the date of the **Commissioner's** written determination of **Final Acceptance**, or within such additional time as may be granted by the **Commissioner** in writing. If the **Contractor** fails to submit all required certificates and documents within the time allowed, no payment of the balance claimed shall be made to the **Contractor** and the **Contractor** shall be deemed to have forfeited its right to payment of any balance claimed. A verified statement similar to that required in connection with applications for partial payments shall also be submitted to the **Commissioner**.

45.2 Amended Verified Statement of Claims: The Contractor shall also submit with the final requisition any amendments to the final verified statement of any pending dispute resolution procedures in accordance with the PPB Rules and this Contract and any and all alleged claims against the City, in any way connected with or arising out of this Contract (including those as to which details may have been furnished pursuant to Articles 11, 27, 28, and 30) that have occurred subsequent to Substantial Completion, setting forth with respect to each such claim the total amount thereof, the various items of labor and materials included therein, and the alleged value of each such item; and if the alleged claim be one for delay, the alleged cause of each such delay, the period or periods of time, giving the dates when the Contractor claims the performance of the Work or a particular part thereof was delayed, and an itemized statement and breakdown of the amount claimed for each such delay. With reference to each such claim, the Commissioner, the Comptroller and, in the event of litigation, the City Corporation Counsel shall have the same right to inspect, and to make extracts or copies of, the **Contractor's** books, vouchers, records, etc., as is referred to in Articles 11, 27, 28, and 30. Nothing contained in this Article 45.2, is intended to or shall relieve the Contractor from the obligation of complying strictly with Articles 11, 27, 28, and 30. The Contractor is warned that unless such claims are completely set forth as herein required, the Contractor, upon acceptance of the Final Payment pursuant to Article 46, will have waived any such claims.

45.3 Preparation of Final Voucher: Upon determining the balance due hereunder other than on account of claims, the **Engineer** will prepare and certify, for the Commissioner's approval, a voucher for final payment in that amount less any and all deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**. In the case of a lump sum **Contract**, the **Commissioner** shall certify the voucher for final payment within thirty (30) **Days** from the date of completion and acceptance of the **Work**, provided all requests for extensions of time have been acted upon.

45.3.1 All prior certificates and vouchers upon which partial payments were made, being merely estimates made to enable the **Contractor** to prosecute the **Work** more advantageously, shall be subject to correction in the final voucher, and the certification of the **Engineer** thereon and the approval of the **Commissioner** thereof, shall be conditions precedent to the right of the **Contractor** to receive any money hereunder. Such final voucher shall be binding and conclusive upon the **Contractor**.

45.3.2 Payment pursuant to such final voucher, less any deductions authorized to be made by the **Commissioner** under this **Contract** or by **Law**, shall constitute the final payment, and shall be made by the **Comptroller** within thirty (30) **Days** after the filing of such voucher in his/her office.

45.4 The **Contractor** acknowledges that nothing contained in this Article 45 is intended to or shall in any way diminish the force and effect of Article 13.

ARTICLE 46. ACCEPTANCE OF FINAL PAYMENT

46.1 The acceptance by the **Contractor**, or by anyone claiming by or through it, of the final payment, whether such payment be made pursuant to any judgment of any court, or otherwise, shall constitute and operate as a release of the **City** from any and all claims of and liability to the **Contractor** for anything heretofore done or furnished for the **Contractor** relating to or arising out of this **Contract** and the **Work** done hereunder, and for any prior act, neglect or default on the part of the **City** or any of its officials, agents or employees, excepting only a claim against the **City** for the amounts deducted or retained in accordance with the terms and provisions of this **Contract** or by **Law**, and excepting any claims, not otherwise waived, or any pending dispute resolution procedures which are contained in the

verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45.

46.2 The **Contractor** is warned that the execution by it of a release, in connection with the acceptance of the final payment, containing language purporting to reserve claims other than those herein specifically excepted from the operation of this Article 46, or those for amounts deducted by the **Commissioner** from the final requisition or from the final payment as certified by the **Engineer** and approved by the **Commissioner**, shall not be effective to reserve such claims, anything stated to the **Contractor** orally or in writing by any official, agent or employee of the **City** to the contrary notwithstanding.

46.3 Should the **Contractor** refuse to accept the final payment as tendered by the **Comptroller**, it shall constitute a waiver of any right to interest thereon.

46.4 The **Contractor**, however, shall not be barred by this Article 46 from commencing an action for breach of **Contract** to the extent permitted by **Law** and by the terms of the **Contract** for any claims that are contained in the verified statement filed with the **Contractor's** substantial and final requisitions pursuant to Articles 44 and 45 or that arose after submission of the final payment requisition, provided that a detailed and verified statement of claim is served upon the contracting **Agency** and **Comptroller** not later than forty (40) **Days** after the making of such final payment by electronic funds transfer (EFT) or the mailing of such final payment. The statement shall specify the items upon which the claim will be based and any such claim shall be limited to such items.

ARTICLE 47. APPROVAL BY PUBLIC DESIGN COMMISSION

47.1 All works of art, including paintings, mural decorations, stained glass, statues, bas-reliefs, and other sculptures, monuments, fountains, arches, and other structures of a permanent character intended for ornament or commemoration, and every design of the same to be used in the performance of this **Contract**, and the design of all bridges, approaches, buildings, gates, fences, lamps, or structures to be erected, pursuant to the terms of this **Contract**, shall be submitted to the Art Commission, d/b/a the Public Design Commission of the City of New York, and shall be approved by the Public Design Commission prior to the erection or placing in position of the same. The final payment shall not become due or payable under this **Contract** unless and until the Public Design Commission shall certify that the design for the **Work** herein contracted for has been approved by the said Public Design Commission, and that the same has been executed in substantial accordance with the design so approved, pursuant to the provisions of Chapter 37, Section 854 of the **City** Charter, as amended.

CHAPTER X: CONTRACTOR'S DEFAULT

ARTICLE 48. COMMISSIONER'S RIGHT TO DECLARE CONTRACTOR IN DEFAULT

48.1 In addition to those instances specifically referred to in other Articles herein, the **Commissioner** shall have the right to declare the **Contractor** in default of this **Contract** if:

48.1.1 The **Contractor** fails to commence **Work** when notified to do so by the **Commissioner**; or if

48.1.2 The Contractor shall abandon the Work; or if

48.1.3 The **Contractor** shall refuse to proceed with the **Work** when and as directed by the **Commissioner**; or if

48.1.4 The **Contractor** shall, without just cause, reduce its working force to a number which, if maintained, would be insufficient, in the opinion of the **Commissioner**, to complete the **Work** in accordance with the progress schedule; or if

48.1.5 The **Contractor** shall fail or refuse to increase sufficiently such working force when ordered to do so by the **Commissioner**; or if

48.1.6 The **Contractor** shall sublet, assign, transfer, convert or otherwise dispose of this **Contract** other than as herein specified; or sell or assign a majority interest in the **Contractor**; or if

48.1.7 The Contractor fails to secure and maintain all required insurance; or if

48.1.8 A receiver or receivers are appointed to take charge of the **Contractor's** property or affairs; or if

48.1.9 The **Commissioner** shall be of the opinion that the **Contractor** is or has been unnecessarily or unreasonably or willfully delaying the performance and completion of the **Work**, or the award of necessary subcontracts, or the placing of necessary material and equipment orders; or if

48.1.10 The **Commissioner** shall be of the opinion that the **Contractor** is or has been willfully or in bad faith violating any of the provisions of this **Contract**; or if

48.1.11 The **Commissioner** shall be of the opinion that the **Work** cannot be completed within the time herein provided therefor or within the time to which such completion may have been extended; provided, however, that the impossibility of timely completion is, in the **Commissioner's** opinion, attributable to conditions within the **Contractor's** control; or if

48.1.12 The **Work** is not completed within the time herein provided therefor or within the time to which the **Contractor** may be entitled to have such completion extended; or if

48.1.13 Any statement or representation of the **Contractor** in the **Contract** or in any document submitted by the **Contractor** with respect to the **Work**, the **Project**, or the **Contract** (or for purposes of securing the **Contract**) was untrue or incorrect when made; or if

48.1.14 The **Contractor** or any of its officers, directors, partners, five (5%) percent shareholders, principals, or other persons substantially involved in its activities, commits any of the acts or omissions specified as the grounds for debarment in the **PPB** Rules.

48.2 Before the **Commissioner** shall exercise his/her right to declare the **Contractor** in default, the **Commissioner** shall give the **Contractor** an opportunity to be heard, upon not less than two (2) **Days**' notice.

ARTICLE 49. EXERCISE OF THE RIGHT TO DECLARE DEFAULT

49.1 The right to declare the **Contractor** in default for any of the grounds specified or referred to in Article 48 shall be exercised by sending the **Contractor** a notice, signed by the **Commissioner**, setting forth the ground or grounds upon which such default is declared (hereinafter referred to as a "Notice of Default").

49.2 The **Commissioner's** determination that the **Contractor** is in default shall be conclusive, final, and binding on the parties and such a finding shall preclude the **Contractor** from commencing a plenary action for any damages relating to the **Contract.** If the **Contractor** protests the determination of the **Commissioner**, the **Contractor** may commence an action in a court of competent jurisdiction of the State of New York under Article 78 of the New York Civil Practice Law and Rules.

ARTICLE 50. QUITTING THE SITE

50.1 Upon receipt of such notice the **Contractor** shall immediately discontinue all further operations under this **Contract** and shall immediately quit the **Site**, leaving untouched all plant, materials, equipment, tools, and supplies then on the **Site**.

ARTICLE 51. COMPLETION OF THE WORK

51.1 The **Commissioner**, after declaring the **Contractor** in default, may then have the **Work** completed by such means and in such manner, by contract with or without public letting, or otherwise, as he/she may deem advisable, utilizing for such purpose such of the **Contractor's** plant, materials, equipment, tools, and supplies remaining on the **Site**, and also such **Subcontractors**, as he/she may deem advisable.

51.2 After such completion, the **Commissioner** shall make a certificate stating the expense incurred in such completion, which shall include the cost of re-letting and also the total amount of liquidated damages (at the rate provided for in the **Contract**) from the date when the **Work** should have been completed by the **Contractor** in accordance with the terms hereof to the date of actual completion of the **Work**. Such certificate shall be binding and conclusive upon the **Contractor**, its sureties, and any person claiming under the **Contractor**, as to the amount thereof.

51.3 The expense of such completion, including any and all related and incidental costs, as so certified by the **Commissioner**, and any liquidated damages assessed against the **Contractor**, shall be charged against and deducted out of monies which are earned by the **Contractor** prior to the date of default. Should the expense of such completion, as certified by the **Commissioner**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

ARTICLE 52. PARTIAL DEFAULT

52.1 In case the **Commissioner** shall declare the **Contractor** in default as to a part of the **Work** only, the **Contractor** shall discontinue such part, shall continue performing the remainder of the **Work** in strict conformity with the terms of this **Contract**, and shall in no way hinder or interfere with any **Other Contractor(s)** or persons whom the **Commissioner** may engage to complete the **Work** as to which the **Contractor** was declared in default.

52.2 The provisions of this Chapter relating to declaring the **Contractor** in default as to the entire **Work** shall be equally applicable to a declaration of partial default, except that the **Commissioner** shall be entitled to utilize for completion of the part of the **Work** as to which the **Contractor** was declared in default only such plant, materials, equipment, tools, and supplies as had been previously used by the **Contractor** on such part.

ARTICLE 53. PERFORMANCE OF UNCOMPLETED WORK

53.1 In completing the whole or any part of the **Work** under the provisions of this Chapter X, the **Commissioner** shall have the power to depart from or change or vary the terms and provisions of this **Contract**, provided, however, that such departure, change or variation is made for the purpose of reducing the time or expense of such completion. Such departure, change or variation, even to the extent of accepting a lesser or different performance, shall not affect the conclusiveness of the **Commissioner's** certificate of the cost of completion referred to in Article 51, nor shall it constitute a defense to an action to recover the amount by which such certificate exceeds the amount which would have been payable to the **Contractor** hereunder but for its default.

ARTICLE 54. OTHER REMEDIES

54.1 In addition to the right to declare the **Contractor** in default pursuant to this Chapter X, the **Commissioner** shall have the absolute right, in his/her sole discretion and without a hearing, to complete or cause to be completed in the same manner as described in Articles 51 and 53, any or all unsatisfactory or uncompleted punch list **Work** that remains after the completion date specified in the **Final Approved Punch List**. A written notice of the exercise of this right shall be sent to the **Contractor** who shall immediately quit the **Site** in accordance with the provisions of Article 50.

54.2 The expense of completion permitted under Article 54.1, including any and all related and incidental costs, as so certified by the **Commissioner**, shall be charged against and deducted out of monies which have been earned by the **Contractor** prior to the date of the exercise of the right set forth in Article 54.1; the balance of such monies, if any, subject to the other provisions of this **Contract**, to be paid to the **Contractor** without interest after such completion. Should the expense of such completion, as certified by the **Contractor**, exceed the total sum which would have been payable under the **Contract** if it had been completed by the **Contractor**, any excess shall be paid by the **Contractor**.

54.3 The previous provisions of this Chapter X shall be in addition to any and all other remedies available under **Law** or in equity.

54.4 The exercise by the **City** of any remedy set forth herein shall not be deemed a waiver by the **City** of any other legal or equitable remedy contained in this **Contract** or provided under **Law**.

CHAPTER XI: MISCELLANEOUS PROVISIONS

ARTICLE 55. CONTRACTOR'S WARRANTIES

55.1 In consideration of, and to induce, the award of this **Contract** to the **Contractor**, the **Contractor** represents and warrants:

55.1.1 That it is financially solvent, sufficiently experienced and competent to perform the **Work**; and

55.1.2 That the facts stated in its bid and the information given by it pursuant to the Information for Bidders is true and correct in all respects; and

55.1.3 That it has read and complied with all requirements set forth in the Contract.

ARTICLE 56. CLAIMS AND ACTIONS THEREON

56.1 Any claim, that is not subject to dispute resolution under the **PPB** Rules or this **Contract**, against the **City** for damages for breach of **Contract** shall not be made or asserted in any action, unless the **Contractor** shall have strictly complied with all requirements relating to the giving of notice and of information with respect to such claims, as herein before provided.

56.2 Nor shall any action be instituted or maintained on any such claims unless such action is commenced within six (6) months after **Substantial Completion**; except that:

56.2.1 Any claims arising out of events occurring after **Substantial Completion** and before **Final Acceptance** of the **Work** shall be asserted within six (6) months of **Final Acceptance** of the **Work**;

56.2.2 If the **Commissioner** exercises his/her right to complete or cause to complete any or all unsatisfactory or uncompleted punch list **Work** that remains after the completion date specified in the **Final Approved Punch List** pursuant to Article 54, any such action shall be commenced within six (6) months from the date the **Commissioner** notifies the **Contractor** in writing that he/she has exercised such right. Any claims for monies deducted, retained or withheld under the provisions of this **Contract** shall be asserted within six (6) months after the date when such monies otherwise become due and payable hereunder; and

56.2.3 If the **Commissioner** exercises his/her right to terminate the **Contract** pursuant to Article 64, any such action shall be commenced within six (6) months of the date the **Commissioner** exercises said right.

ARTICLE 57. INFRINGEMENT

57.1 The **Contractor** shall be solely responsible for and shall defend, indemnify, and hold the **City** harmless from any and all claims (even if the allegations of the lawsuit are without merit) and judgments for damages and from costs and expenses to which the **City** may be subject to or which it may suffer or incur allegedly arising out of or in connection with any infringement by the **Contractor** of any copyright, trade secrets, trademark or patent rights or any other property or personal right of any third party by the **Contractor** and/or its **Subcontractors** in the performance or completion of the **Work**. Insofar as the facts or **Law** relating to any claim would preclude the **City** from being completely indemnified by the **Contractor**, the **City** shall be partially indemnified by the **Contractor** to the fullest extent permitted by **Law**.

ARTICLE 58. NO CLAIM AGAINST OFFICIALS, AGENTS OR EMPLOYEES

58.1 No claim whatsoever shall be made by the **Contractor** against any official, agent or employee of the **City** for, or on account of, anything done or omitted to be done in connection with this **Contract**.

ARTICLE 59. SERVICE OF NOTICES

59.1 The **Contractor** hereby designates the business address, fax number, and email address specified in its bid, as the place where all notices, directions or other communications to the **Contractor** may be delivered, or to which they may be mailed. Any notice, direction, or communication from either party to the other shall be in writing and shall be deemed to have been given when (i) delivered personally; (ii) sent by certified mail, return receipt requested; (iii) delivered by overnight or same day courier service in a properly addressed envelope with confirmation; or (iv) sent by fax or email and, unless receipt of the fax or e-mail is acknowledged by the recipient by fax or e-mail, deposited in a post office box regularly maintained by the United States Postal Service in a properly addressed, postage prepaid envelope.

59.2 Contractor's notice address, email address, or fax number may be changed at any time by an instrument in writing, executed and acknowledged by the Contractor, and delivered to the Commissioner.

59.3 Nothing herein contained shall, however, be deemed to preclude or render inoperative the service of any notice, direction or other communication upon the **Contractor** personally, or, if the **Contractor** is a corporation, upon any officer thereof.

ARTICLE 60. UNLAWFUL PROVISIONS DEEMED STRICKEN FROM CONTRACT

60.1 If this **Contract** contains any unlawful provision not an essential part of the **Contract** and which shall not appear to have been a controlling or material inducement to the making thereof, the same shall be deemed of no effect and shall, upon notice by either party, be deemed stricken from the **Contract** without affecting the binding force of the remainder.

ARTICLE 61. ALL LEGAL PROVISIONS DEEMED INCLUDED

61.1 It is the intent and understanding of the parties to this **Contract** that each and every provision of **Law** required to be inserted in this **Contract** shall be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is to be deemed to be inserted herein, and if, through mistake or otherwise, any such provision is not inserted, or is not inserted in correct form, then this **Contract** shall forthwith upon the application of either party be amended by such insertion so as to comply strictly with the **Law** and without prejudice to the rights of either party hereunder.

ARTICLE 62. TAX EXEMPTION

62.1 The **City** is exempt from payment of Federal, State, and local taxes, including sales and compensating use taxes of the State of New York and its cities and counties on all tangible personal property sold to the **City** pursuant to the provisions of this **Contract**. These taxes are not to be included in bids. However, this exemption does not apply to tools, machinery, equipment or other property leased by or to the **Contractor**, **Subcontractor** or **Materialman** or to tangible personal property which, even

though it is consumed, is not incorporated into the completed **Work** (consumable supplies) and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**. The **Contractor** and its **Subcontractors** and **Materialmen** shall be responsible for and pay any and all applicable taxes, including sales and compensating use taxes, on such leased tools, machinery, equipment or other property and upon all such consumable supplies and tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**.

62.2 The **Contractor** agrees to sell and the **City** agrees to purchase all tangible personal property, other than consumable supplies and other tangible personal property that the **Contractor** is required to remove from the **Site** during or upon completion of the **Work**, that is required, necessary or proper for or incidental to the construction of the **Project** covered by this **Contract**. The sum paid under this **Contract** for such tangible personal property shall be in full payment and consideration for the sale of such tangible personal property.

62.2.1 The **Contractor** agrees to construct the **Project** and to perform all **Work**, labor and services rendered, necessary, proper or incidental thereto for the sum shown in the bid for the performance of such **Work**, labor, and services, and the sum so paid pursuant to this **Contract** for such **Work**, labor, and services, shall be in full consideration for the performance by the **Contractor** of all its duties and obligations under this **Contract** in connection with said **Work**, labor, and services.

62.3 20 NYCRR Section 541.3(d) provides that a **Contractor**'s purchases of tangible personal property that is either incorporated into real property owned by a governmental entity or purchased for and sold to a governmental entity are exempt from sales and use tax. The **City** shall not pay sales tax for any such tangible personal property that it purchases from the **Contractor** pursuant to the **Contract.** With respect to such tangible personal property, the **Contractor**, at the request of the **City**, shall furnish to the **City** such bills of sale and other instruments as may be required by the **City**, properly executed, acknowledged and delivered assuring to the **City** title to such tangible personal property, free of liens and/or encumbrances, and the **Contractor** shall mark or otherwise identify all such tangible personal property as the property of the **City**.

62.4 Title to all tangible personal property to be sold by the **Contractor** to the **City** pursuant to the provisions of the **Contract** shall immediately vest in and become the sole property of the **City** upon delivery of such tangible personal property to the **Site**. Notwithstanding such transfer of title, the **Contractor** shall have the full and continuing responsibility to install such tangible personal property in accordance with the provisions of this **Contract**, protect it, maintain it in a proper condition and forthwith repair, replace and make good any damage thereto, theft or disappearance thereof, and furnish additional tangible personal property in place of any that may be lost, stolen or rendered unusable, without cost to the **City**, until such time as the **Work** covered by the **Contract** is fully accepted by the **City**. Such transfer of title shall in no way affect any of the **Contractor's** obligations hereunder. In the event that, after title has passed to the **City**, any of the tangible personal property is rejected as being defective or otherwise unsatisfactory, title to all such tangible personal property shall be deemed to have been transferred back to the **Contractor**.

62.5 The purchase by **Subcontractors** or **Materialmen** of tangible personal property to be sold hereunder shall be a purchase or procurement for resale to the **Contractor** (either directly or through other **Subcontractors**) and therefore not subject to the aforesaid sales and compensating use taxes, provided that the subcontracts and purchase agreements provide for the resale of such tangible personal property and that such subcontracts and purchase agreements are in a form similar to this **Contract** with respect to the separation of the sale of consumable supplies and tangible personal property that the

Contractor is required to remove from the **Site** during or upon completion of the **Work** from the **Work** and labor, services, and any other matters to be provided, and provided further that the subcontracts and purchase agreements provide separate prices for tangible personal property and all other services and matters. Such separation shall actually be followed in practice, including the separation of payments for tangible personal property from the payments for other **Work** and labor and other things to be provided.

62.6 The **Contractor** and its **Subcontractors** and **Materialmen** shall furnish a **Contractor** Exempt Purchase Certificate to all persons, firms or corporations from which they purchase tangible personal property for the performance of the **Work** covered by this **Contract**.

62.7 In the event any of the provisions of this Article 62 shall be deemed to be in conflict with any other provisions of this **Contract** or create any ambiguity, then the provisions of this Article 62 shall control.

ARTICLE 63. INVESTIGATION(S) CLAUSE

63.1 The parties to this **Contract** agree to cooperate fully and faithfully with any investigation, audit or inquiry conducted by a United States, a State of New York (State) or a **City** governmental agency or authority that is empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the Inspector General of a governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit or license that is the subject of the investigation, audit or inquiry.

63.2 If any person who has been advised that his/her statement, and any information from such statement, will not be used against him/her in any subsequent criminal proceeding refuses to testify before a grand jury or other governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath concerning the award of or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision or public authority thereof, or the Port Authority of New York and New Jersey, or any local development corporation within the **City**, or any public benefit corporation organized under the **Laws** of the State of New York, or;

63.3 If any person refuses to testify for a reason other than the assertion of his/her privilege against self incrimination in an investigation, audit or inquiry conducted by a **City** or State governmental agency or authority empowered directly or by designation to compel the attendance of witnesses and to take testimony under oath, or by the Inspector General of the governmental agency that is a party in interest in, and is seeking testimony concerning the award of, or performance under any transaction, agreement, lease, permit, contract, or license entered into with the **City**, the State, or any political subdivision thereof or any local development corporation within the **City**, then;

63.4 The **Commissioner** whose **Agency** is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license shall convene a hearing, upon not less than five (5) **Days'** written notice to the parties involved to determine if any penalties should attach for the failure of a person to testify.

63.5 If any non-governmental party to the hearing requests an adjournment, the **Commissioner** who convened the hearing may, upon granting the adjournment, suspend any contract, lease, permit, or license, pending the final determination pursuant to Article 63.7 without the **City** incurring any penalty or damages for delay or otherwise.

63.6 The penalties which may attach after a final determination by the **Commissioner** may include but shall not exceed:

63.6.1 The disqualification for a period not to exceed five (5) years from the date of an adverse determination for any person, or any entity of which such person was a member at the time the testimony was sought, from submitting bids for, or transacting business with, or entering into or obtaining any contract, lease, permit or license with or from the **City**; and/or

63.6.2 The cancellation or termination of any and all such existing **City** contracts, leases, permits or licenses that the refusal to testify concerns and that have not been assigned as permitted under this **Contract**, nor the proceeds of which pledged, to an unaffiliated and unrelated institutional lender for fair value prior to the issuance of the notice scheduling the hearing, without the **City** incurring any penalty or damages on account of such cancellation or termination; monies lawfully due for goods delivered, work done, rentals, or fees accrued prior to the cancellation or termination shall be paid by the **City**.

63.7 The **Commissioner** shall consider and address in reaching his/her determination and in assessing an appropriate penalty the factors in Articles 63.7.1 and 63.7.2. The **Commissioner** may also consider, if relevant and appropriate, the criteria established in Articles 63.7.3 and 63.7.4, in addition to any other information which may be relevant and appropriate:

63.7.1 The party's good faith endeavors or lack thereof to cooperate fully and faithfully with any governmental investigation or audit, including but not limited to the discipline, discharge, or disassociation of any person failing to testify, the production of accurate and complete books and records, and the forthcoming testimony of all other members, agents, assignees or fiduciaries whose testimony is sought.

63.7.2 The relationship of the person who refused to testify to any entity that is a party to the hearing, including but not limited to, whether the person whose testimony is sought has an ownership interest in the entity and/or the degree of authority and responsibility the person has within the entity.

63.7.3 The nexus of the testimony sought to the subject entity and its contracts, leases, permits or licenses with the **City**.

63.7.4 The effect a penalty may have on an unaffiliated and unrelated party or entity that has a significant interest in an entity subject to penalties under Article 63.6, provided that the party or entity has given actual notice to the **Commissioner** upon the acquisition of the interest, or at the hearing called for in Article 63.4, gives notice and proves that such interest was previously acquired. Under either circumstance the party or entity shall present evidence at the hearing demonstrating the potential adverse impact a penalty will have on such person or entity.

63.8 Definitions:

63.8.1 The term "license" or "permit" as used in this Article 63 shall be defined as a license, permit, franchise or concession not granted as a matter of right.

63.8.2 The term "person" as used in this Article 63 shall be defined as any natural person doing business alone or associated with another person or entity as a partner, director, officer, principal or employee.

63.8.3 The term "entity" as used in this Article 63 shall be defined as any firm, partnership, corporation, association, joint venture, or person that receives monies, benefits, licenses, leases, or permits from or through the **City** or otherwise transacts business with the **City**.

63.8.4 The term "member" as used in this Article 63 shall be defined as any person associated with another person or entity as a partner, director, officer, principal or employee.

63.9 In addition to and notwithstanding any other provision of this **Contract**, the **Commissioner** may in his/her sole discretion terminate this **Contract** upon not less than three (3) **Days'** written notice in the event the **Contractor** fails to promptly report in writing to the **Commissioner** of the Department of Investigations ("DOI") of the **City** any solicitation of money, goods, requests for future employment or other benefit or thing of value, by or on behalf of any employee of the **City** or other person, firm, corporation or entity for any purpose which may be related to the procurement or obtaining of this **Contract**.

ARTICLE 64. TERMINATION BY THE CITY

64.1 In addition to termination pursuant to any other article of this **Contract**, the **Commissioner** may, at any time, terminate this **Contract** by written notice to the **Contractor**. In the event of termination, the **Contractor** shall, upon receipt of such notice, unless otherwise directed by the **Commissioner**:

64.1.1 Stop Work on the date specified in the notice;

64.1.2 Take such action as may be necessary for the protection and preservation of the **City's** materials and property;

64.1.3 Cancel all cancelable orders for material and equipment;

64.1.4 Assign to the **City** and deliver to the **Site** or another location designated by the **Commissioner**, any non-cancelable orders for material and equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract** and not incorporated in the **Work**;

64.1.5 Take no action which will increase the amounts payable by the **City** under this **Contract**.

64.2 In the event of termination by the **City** pursuant to this Article 64, payment to the **Contractor** shall be in accordance with Articles 64.2.1, 64.2.2 or 64.2.3, to the extent that each respective article applies.

64.2.1 Lump Sum Contracts or Items: On all lump sum **Contracts**, or on lump sum items in a **Contract**, the **City** will pay the **Contractor** the sum of the amounts described in Articles 64.2.1(a) and 64.2.1(b), less all payments previously made pursuant to this **Contract**. On lump sum **Contracts** only, the **City** will also pay the **Contractor** an additional sum as provided in Article 64.2.1(c).

64.2.1(a) For **Work** completed prior to the notice of termination, the **Contractor** shall be paid a pro rata portion of the lump sum bid amount, plus approved change orders, based upon the percent completion of the **Work**, as determined by the

Commissioner. For the purpose of determining the pro rata portion of the lump sum bid amount to which the **Contractor** is entitled, the bid breakdown submitted in accordance with Article 41 shall be considered, but shall not be dispositive. The **Commissioner's** determination hereunder shall be final, binding, and conclusive.

64.2.1(b) For non-cancelable material and equipment that is not capable of use except in the performance of this **Contract** and has been specifically fabricated for the sole purpose of this **Contract**, but not yet incorporated in the **Work**, the **Contractor** shall be paid the lesser of the following, less salvage value:

64.2.1(b)(i) The Direct Cost, as defined in Article 64.2.4; or

64.2.1(b)(ii) The fair and reasonable value, if less than Direct Cost, of such material and equipment, plus necessary and reasonable delivery costs.

64.2.1(b)(iii) In addition, the **Contractor** shall be paid five (5%) percent of the amount described in Article 64.2.1(b)(i) or Article 64.2.1(b)(ii), whichever applies.

64.2.1(c) Except as otherwise provided in Article 64.2.1(d), on all lump sum **Contracts**, the **Contractor** shall be paid the percentage indicated below applied to the difference between the total lump sum bid amount and the total of all payments made prior to the notice of termination plus all payments allowed pursuant to Articles 64.2.1(a) and 64.2.1(b):

64.2.1(c)(i) Five (5%) percent of the first five million (\$5,000,000) dollars; and

64.2.1(c)(ii) Three (3%) percent of any amount between five million (\$5,000,000) dollars and fifteen million (\$15,000,000) dollars; plus

64.2.1(c)(iii) One (1%) percent of any amount over fifteen million (\$15,000,000) dollars.

64.2.1(d) In the event the **City** terminates a lump sum **Contract** pursuant to this Article 64 within ninety (90) **Days** after registration of the **Contract** with the **Comptroller**, the **Contractor** shall be paid one (1%) percent of the difference between the lump sum bid amount and the total of all payments made pursuant to this Article 64.2.

64.2.2 Unit Price Contracts or Items: On all unit price **Contracts**, or on unit price items in a **Contract**, the **City** will pay the **Contractor** the sum of the amounts described in Articles 64.2.2(a) and 64.2.2(b), less all payments previously made pursuant to this **Contract**:

64.2.2(a) For all completed units, the unit price stated in the Contract, and

64.2.2(b) For units that have been ordered but are only partially completed, the **Contractor** will be paid:

64.2.2(b)(i) A pro rata portion of the unit price stated in the **Contract** based upon the percent completion of the unit and

64.2.2(b)(ii) For non-cancelable material and equipment, payment will be made pursuant to Article 64.2.1(b).

64.2.3 Time and Materials Contracts or Items Based on Time and Material Records: On all **Contracts** or items in a **Contract** where payment for the **Work** is based on time and material records, the **Contractor** shall be paid in accordance with Article 26, less all payments previously made pursuant to this **Contract**.

64.2.4 Direct Costs: Direct Costs as used in this Article 64.2 shall mean:

64.2.4(a) The actual purchase price of material and equipment, plus necessary and reasonable delivery costs,

64.2.4(b) The actual cost of labor involved in construction and installation at the **Site**, and

64.2.4(c) The actual cost of necessary bonds and insurance purchased pursuant to requirements of this **Contract** less any amounts that have been or should be refunded by the **Contractor's** sureties or insurance carriers.

64.2.4(d) Direct Costs shall not include overhead.

64.3 In no event shall any payments under this Article 64 exceed the Contract price for such items.

64.4 All payments pursuant to Article 64 shall be in the nature of liquidated damages and shall be accepted by the **Contractor** in full satisfaction of all claims against the **City**.

64.5 The **City** may deduct or set off against any sums due and payable pursuant to this Article 64, any deductions authorized by this **Contract** or by **Law** (including but not limited to liquidated damages) and any claims it may have against the **Contractor**. The **City's** exercise of the right to terminate the **Contract** pursuant to this Article 64 shall not impair or otherwise effect the **City's** right to assert any claims it may have against the **Contractor** in a plenary action.

64.6 Where the **Work** covered by the **Contract** has been substantially completed, as determined in writing by the **Commissioner**, termination of the **Work** shall be handled as an omission of **Work** pursuant to Articles 29 and 33, in which case a change order will be issued to reflect an appropriate reduction in the **Contract** sum, or if the amount is determined after final payment, such amount shall be paid by the **Contractor**.

ARTICLE 65. CHOICE OF LAW, CONSENT TO JURISDICTION AND VENUE

65.1 This **Contract** shall be deemed to be executed in the **City** regardless of the domicile of the **Contractor**, and shall be governed by and construed in accordance with the **Laws** of the State of New York and the **Laws** of the United States, where applicable.

65.2 The parties agree that any and all claims asserted against the **City** arising under this **Contract** or related thereto shall be heard and determined in the courts of the State of New York ("New York State Courts") located in the **City** and County of New York. To effect this **Contract** and intent, the **Contractor** agrees:

65.2.1 If the **City** initiates any action against the **Contractor** in Federal court or in a New York State Court, service of process may be made on the **Contractor** either in person, wherever such **Contractor** may be found, or by registered mail addressed to the **Contractor** at its address as set forth in this **Contract**, or to such other address as the **Contractor** may provide to the **City** in writing; and

65.2.2 With respect to any action between the **City** and the **Contractor** in a New York State Court, the **Contractor** hereby expressly waives and relinquishes any rights it might otherwise have:

65.2.2(a) To move to dismiss on grounds of forum non conveniens;

65.2.2(b) To remove to Federal Court; and

65.2.2(c) To move for a change of venue to a New York State Court outside New York County.

65.2.3 With respect to any action brought by the **City** against the **Contractor** in a Federal Court located in the **City**, the **Contractor** expressly waives and relinquishes any right it might otherwise have to move to transfer the action to a Federal Court outside the **City**.

65.2.4 If the **Contractor** commences any action against the **City** in a court located other than in the **City** and County of New York, upon request of the **City**, the **Contractor** shall either consent to a transfer of the action to a New York State Court of competent jurisdiction located in the **City** and County of New York or, if the Court where the action is initially brought will not or cannot transfer the action, the **Contractor** shall consent to dismiss such action without prejudice and may thereafter reinstate the action in a New York State Court of competent jurisdiction in New York County.

65.3 If any provision(s) of this Article 65 is held unenforceable for any reason, each and all other provision(s) shall nevertheless remain in full force and effect.

ARTICLE 66. PARTICIPATION IN AN INTERNATIONAL BOYCOTT

66.1 The **Contractor** agrees that neither the **Contractor** nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the Federal Export Administration Act of 1979, as amended, or the regulations of the United States Department of Commerce (Commerce Department) promulgated thereunder.

66.2 Upon the final determination by the Commerce Department or any other agency of the United States as to, or conviction of the **Contractor** or a substantially-owned affiliated company thereof for participation in an international boycott in violation of the provisions of the Export Administration Act of 1979, as amended, or the regulations promulgated thereunder, the **Comptroller** may, at his/her option, render forfeit and void this **Contract**.

66.3 The **Contractor** shall comply in all respects, with the provisions of Section 6-114 of the Administrative Code and the rules and regulations issued by the **Comptroller** thereunder.

ARTICLE 67. LOCALLY BASED ENTERPRISE PROGRAM

67.1 This **Contract** is subject to the requirements of Section 6-108.1 of the Administrative Code and regulations promulgated thereunder. No construction contract shall be awarded unless and until these requirements have been complied with in their entirety; however, compliance with this Article 67 is not required if the Agency sets Subcontractor Participation Goals for Minority- and Women-Owned Business Enterprises (M/WBEs).

67.2 Unless specifically waived by the **Commissioner** with the approval of the Division of Economic and Financial Opportunity of the **City** Department of Business Services, if any portion of the **Contract** is subcontracted, not less than ten (10%) percent of the total dollar amount of the **Contract** shall be awarded to locally based enterprises (LBEs); except that where less than ten (10%) percent of the total dollar amount of the **Contract** is subcontracted, such lesser percentage shall be so awarded.

67.3 The Contractor shall not require performance and payment bonds from LBE Subcontractors.

67.4 If the **Contractor** has indicated prior to award that no **Work** will be subcontracted, no **Work** shall be subcontracted without the prior approval of the **Commissioner**, which shall be granted only if the **Contractor** makes a good faith effort beginning at least six (6) weeks before the **Work** is to be performed to obtain LBE **Subcontractors** to perform the **Work**.

67.5 If the **Contractor** has not identified sufficient LBE **Subcontractors** prior to award, it shall sign a letter of compliance stating that it complies with Section 6-108.1 of the Administrative Code, recognizes that achieving the LBE requirement is a condition of its **Contract**, and shall submit documentation demonstrating its good faith efforts to obtain LBEs. After award, the **Contractor** shall begin to solicit LBE's to perform subcontracted **Work** at least six (6) weeks before the date such **Work** is to be performed and shall demonstrate that a good faith effort has been made to obtain LBEs on each subcontract until it meets the required percentage.

67.6 Failure of the **Contractor** to comply with the requirements of Section 6-108.1 of the Administrative Code and the regulations promulgated thereunder shall constitute a material breach of this **Contract**. Remedy for such breach may include the imposition of any or all of the following sanctions:

67.6.1 Reducing the **Contractor's** compensation by an amount equal to the dollar value of the percentage of the LBE subcontracting requirement not complied with;

67.6.2 Declaring the **Contractor** in default;

67.6.3 If the **Contractor** is an LBE, de-certifying and declaring the **Contractor** ineligible to participate in the LBE program for a period of up to three (3) years.

ARTICLE 68. ANTITRUST

68.1 The **Contractor** hereby assigns, sells, and transfers to the **City** all right, title, and interest in and to any claims and causes of action arising under the antitrust **Laws** of New York State or of the United States relating to the particular goods or services purchased or procured by the **City** under this **Contract**.

ARTICLE 69. MacBRIDE PRINCIPLES PROVISIONS

69.1 Notice To All Prospective Contractors:

69.1.1 Local Law No. 34 of 1991 became effective on September 10, 1991 and added Section 6-115.1 of the Administrative Code. The local **Law** provides for certain restrictions on **City Contracts** to express the opposition of the people of the **City** to employment discrimination practices in Northern Ireland to promote freedom of work-place opportunity.

69.1.2 Pursuant to Section 6-115.1, prospective **Contractors** for **Contracts** to provide goods or services involving an expenditure of an amount greater than ten thousand (\$10,000.) dollars, or for construction involving an amount greater than fifteen thousand (\$15,000.) dollars, are asked to sign a rider in which they covenant and represent, as a material condition of their **Contract**, that any business operations in Northern Ireland conducted by the **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** will be conducted in accordance with the MacBride Principles of nondiscrimination in employment.

69.1.3 Prospective **Contractors** are not required to agree to these conditions. However, in the case of **Contracts** let by competitive sealed bidding, whenever the lowest responsible bidder has not agreed to stipulate to the conditions set forth in this notice and another bidder who has agreed to stipulate to such conditions has submitted a bid within five (5%) percent of the lowest responsible bid for a **Contract** to supply goods, services or contraction of comparable quality, the **Agency** shall refer such bids to the Mayor, the Speaker or other officials, as appropriate, who may determine, in accordance with applicable **Law**, that it is in the best interest of the **City** that the **Contract** be awarded to other than the lowest responsible pursuant to Section 313(b)(2) of the **City** Charter.

69.1.4 In the case of **Contracts** let by other than competitive sealed bidding, if a prospective **Contractor** does not agree to these conditions, no **Agency**, elected official or the **City** Council shall award the **Contract** to that bidder unless the **Agency** seeking to use the goods, services or construction certifies in writing that the **Contract** is necessary for the **Agency** to perform its functions and there is no other responsible **Contractor** who will supply goods, services or construction of comparable quality at a comparable price.

69.2 In accordance with Section 6-115.1 of the Administrative Code, the **Contractor** stipulates that such **Contractor** and any individual or legal entity in which the **Contractor** holds a ten (10%) percent or greater ownership interest in the **Contractor** either:

69.2.1 Have no business operations in Northern Ireland, or

69.2.2 Shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Principles, and shall permit independent monitoring of their compliance with such principles.

69.3 For purposes of this Article, the following terms shall have the following meanings:

69.3.1 "MacBride Principles" shall mean those principles relating to nondiscrimination in employment and freedom of work-place opportunity which require employers doing business in Northern Ireland to:

69.3.1(a) increase the representation of individuals from under-represented religious groups in the workforce, including managerial, supervisory, administrative, clerical and technical jobs;

69.3.1(b) take steps to promote adequate security for the protection of employees from under-represented religious groups both at the work-place and while traveling to and from **Work**;

69.3.1(c) ban provocative religious or political emblems from the workplace;

69.3.1(d) publicly advertise all job openings and make special recruitment efforts to attract applicants from under-represented religious groups;

69.3.1(e) establish layoff, recall, and termination procedures which do not in practice favor a particular religious group;

69.3.1(f) abolish all job reservations, apprenticeship restrictions and different employment criteria which discriminate on the basis of religion;

69.3.1(g) develop training programs that will prepare substantial numbers of current employees from under-represented religious groups for skilled jobs, including the expansion of existing programs and the creation of new programs to train, upgrade, and improve the skills of workers from under-represented religious groups;

69.3.1(h) establish procedures to asses, identify, and actively recruit employees from under-represented religious groups with potential for further advancement; and

69.3.1(i) appoint a senior management staff member to oversee affirmative action efforts and develop a timetable to ensure their full implementation.

69.4 The **Contractor** agrees that the covenants and representations in Article 69.2 are material conditions to this Contract. In the event the Agency receives information that the Contractor who made the stipulation required by this Article 69 is in violation thereof, the Agency shall review such information and give the Contractor an opportunity to respond. If the Agency finds that a violation has occurred, the Agency shall have the right to declare the Contractor in default in default and/or terminate this Contract for cause and procure supplies, services or Work from another source in the manner the Agency deems proper. In the event of such termination, the Contractor shall pay to the Agency, or the Agency in its sole discretion may withhold from any amounts otherwise payable to the Contractor, the difference between the Contract price for the uncompleted portion of this Contract and the cost to the Agency of completing performance of this Contract either itself or by engaging another Contractor or Contractors. In the case of a requirement Contract, the Contractor shall be liable for such difference in price for the entire amount of supplies required by the Agency for the uncompleted term of Contractor's Contract. In the case of a construction Contract, the Agency shall also have the right to hold the Contractor in partial or total default in accordance with the default provisions of this Contract, and/or may seek debarment or suspension of the Contractor. The rights and remedies of the Agency hereunder shall be in addition to, and not in lieu of, any rights and remedies the Agency has pursuant to this Contract or by operation of Law.

ARTICLE 70. ELECTRONIC FILING/NYC DEVELOPMENT HUB

70.1 The **Contractor** shall electronically file all alteration type-2 and alteration type-3 applications via the New York City Development Hub Web site, except applications for the following types of minor alterations: enlargements, curb cuts, legalizations, fire alarms, builders pavement plans, and jobs filed on Landmark Preservation Commission calendared properties. All such filings must be professionally certified. Information about electronic filing via the New York City Development Hub is available on the **City** Department of Buildings Web site at www.nyc.gov/buildings.

ARTICLE 71. PROHIBITION OF TROPICAL HARDWOODS

71.1 Tropical hardwoods, as defined in Section 165 of the New York State Finance Law (Finance Law), shall not be utilized in the performance of this **Contract** except as expressly permitted by Section 165 of the Finance Law.

ARTICLE 72. CONFLICTS OF INTEREST

72.1 Section 2604 of the **City** Charter and other related provisions of the **City** Charter, the Administrative Code, and the Penal Law are applicable under the terms of this **Contract** in relation to conflicts of interest and shall be extended to **Subcontractors** authorized to perform **Work**, labor and services pursuant to this **Contract** and further, it shall be the duty and responsibility of the **Contractor** to so inform its respective **Subcontractors**. Notice is hereby given that, under certain circumstances, penalties may be invoked against the donor as well as the recipient of any form of valuable gift.

ARTICLE 73. MERGER CLAUSE

73.1 The written **Contract** herein, contains all the terms and conditions agreed upon by the parties hereto, and no other agreement, oral or otherwise, regarding the subject matter of this **Contract** shall be deemed to exist or to bind any of the parties hereto, or to vary any of the terms contained herein.

ARTICLE 74. STATEMENT OF WORK

74.1 The **Contractor** shall furnish all labor and materials and perform all **Work** in strict accordance with the **Specifications** and **Addenda** thereto, numbered as shown in Schedule A.

ARTICLE 75. COMPENSATION TO BE PAID TO CONTRACTOR

75.1 The **City** will pay and the **Contractor** will accept in full consideration for the performance of the **Contract**, subject to additions and deductions as provided herein, the total sum shown in Schedule A, this said sum being the amount at which the **Contract** was awarded to the **Contractor** at a public letting thereof, based upon the **Contractor's** bid for the **Contract**.

ARTICLE 76. ELECTRONIC FUNDS TRANSFER

76.1 In accordance with Section 6-107.1 of the Administrative Code, the **Contractor** agrees to accept payments under this **Contract** from the **City** by electronic funds transfer (EFT). An EFT is any

transfer of funds, other than a transaction originated by check, draft or similar paper instrument, which is initiated through an electronic terminal, telephonic instrument or computer or magnetic tape so as to order, instruct or authorize a financial institution to debit or credit an account. Prior to the first payment made under this **Contract**, the **Contractor** shall designate one financial institution or other authorized payment agent and shall complete the attached "EFT Vendor Payment Enrollment Form" in order to provide the Commissioner of the **City** Department of Finance with information necessary for the **Contractor** to receive electronic funds transfer payments through a designated financial institution or authorized payment agent. The crediting of the amount of a payment to the appropriate account on the books of a financial institution or other authorized payment agent designated by the **Contractor** shall constitute full satisfaction by the **City** for the amount of the payment under this **Contract.** The account information supplied by the **Contractor** to facilitate the electronic funds transfer shall remain confidential to the fullest extent provided by **Law**.

76.2 The **Commissioner** may waive the application of the requirements of this Article 76 to payments on contracts entered into pursuant to Section 315 of the **City** Charter. In addition, the Commissioner of the Department of Finance and the Comptroller may jointly issue standards pursuant to which the **Agency** may waive the requirements of this Article 76 for payments in the following circumstances: (i) for individuals or classes of individuals for whom compliance imposes a hardship; (ii) for classifications or types of checks; or (iii) in other circumstances as may be necessary in the interest of the **City**.

ARTICLE 77. RECORDS RETENTION

77.1 The **Contractor** agrees to retain all books, records, and other documents relevant to this **Contract** for six years after the final payment or termination of this **Contract**, whichever is later. **City**, state, and federal auditors and any other persons duly authorized by the **City** shall have full access to and the right to examine any such books, records, and other documents during the retention period.

ARTICLE 78. EXAMINATION AND VIEWING OF SITE, CONSIDERATION OF OTHER SOURCES OF INFORMATION AND CHANGED SITE CONDITIONS

78.1 Pre-Bidding (Investigation) Viewing of Site – Bidders must carefully view and examine the **Site** of the proposed **Work**, as well as its adjacent area, and seek other usual sources of information, for they will be conclusively presumed to have full knowledge of any and all conditions and hazards on, about or above the **Site** relating to or affecting in any way the performance of the **Work** to be done under the **Contract** that were or should have been known by a reasonably prudent bidder. To arrange a date for visiting the **Site**, bidders are to contact the **Agency** contact person specified in the bid documents.

78.2 Should the **Contractor** encounter during the progress of the Work site conditions or environmental hazards at the **Site** materially differing from any shown on the **Contract Drawings** or indicated in the **Specifications** or such conditions or environmental hazards as could not reasonably have been anticipated by the **Contractor**, which conditions or hazards will materially affect the cost of the **Work** to be done under the **Contract**, the attention of the **Commissioner** must be called immediately to such conditions or hazards before they are disturbed. The **Commissioner** shall thereupon promptly investigate the conditions or hazards. If the **Commissioner** finds that they do so materially differ, and that they could not have been reasonably anticipated by the **Contractor**, the **Contract** may be modified with the **Commissioner**'s written approval.

ARTICLE 79. PARTICIPATION BY MINORITY-OWNED AND WOMEN-OWNED BUSINESS ENTERPRISES IN CITY PROCUREMENT

NOTICE TO ALL PROSPECTIVE CONTRACTORS

ARTICLE I. <u>M/WBE PROGRAM</u>

Local Law No. 129 of 2005 added and Local Law 1 of 2013 amended Section 6-129 of the Administrative Code of the City of New York (hereinafter "Section 6-129"). Section 6-129 establishes the program for participation in City procurement ("M/WBE Program") by minority- owned business enterprises ("MBEs") and women-owned business enterprises ("WBEs"), certified in accordance with Section 1304 of the New York City Charter. As stated in Section 6-129, the intent of the program is to address the impact of discrimination on the City's procurement process, and to promote the public interest in avoiding fraud and favoritism in the procurement process, increasing competition for City business, and lowering contract costs. The contract provisions contained herein are pursuant to Section 6-129, and the rules of the Department of Small Business Services ("DSBS") promulgated thereunder.

If this Contract is subject to the M/WBE Program established by Section 6-129, the specific requirements of MBE and/or WBE participation for this Contract are set forth in Schedule B of the Contract (entitled the "M/WBE Utilization Plan"), and are detailed below. The Contractor must comply with all applicable MBE and WBE requirements for this Contract.

All provisions of Section 6-129 are hereby incorporated in the Contract by reference and all terms used herein that are not defined herein shall have the meanings given such terms in Section 6-129. Article I, Part A, below, sets forth provisions related to the participation goals for construction, standard and professional services contracts. Article I, Part B, below, sets forth miscellaneous provisions related to the M/WBE Program.

PART A

<u>PARTICIPATION GOALS FOR CONSTRUCTION, STANDARD</u> <u>AND PROFESSIONAL SERVICES CONTRACTS OR TASK ORDERS</u>

1. The **MBE and/or WBE Participation Goals** established for this Contract or Task Orders issued pursuant to this Contract, ("**Participation Goals**"), as applicable, are set forth on Schedule B, Part I to this Contract (see Page 1, line 1 Total Participation Goals) or will be set forth on Schedule B, Part I to Task Orders issued pursuant to this Contract, as applicable.

The **Participation Goals** represent a percentage of the total dollar value of the Contract or Task Order, as applicable, that may be achieved by awarding subcontracts to firms certified with New York City Department of Small Business Services as MBEs and/or WBEs, and/or by crediting the participation of prime contractors and/or qualified joint ventures as provided in Section 3 below, unless the goals have been waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

2. If **Participation Goals** have been established for this Contract or Task Orders issued pursuant to this Contract, Contractor agrees or shall agree as a material term of the Contract that Contractor shall be subject to the **Participation Goals**, unless the goals are waived or modified by Agency in accordance with Section 6-129 and Part A, Sections 10 and 11 below, respectively.

3. If **Participation Goals** have been established for this Contract or Task Order issued pursuant to this Contract, a Contractor that is an MBE and/or WBE shall be permitted to count its own participation toward fulfillment of the relevant **Participation Goal**, provided that in accordance with Section 6-129 the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that the Contractor pays to direct subcontractors (as defined in Section 6-129(c)(13)), and provided further that a Contractor that is certified as both an MBE and a WBE may count its own participation either toward the goal for MBEs or the goal for WBEs, but not both.

A Contractor that is a qualified joint venture (as defined in Section 6-129(c)(30)) shall be permitted to count a percentage of its own participation toward fulfillment of the relevant **Participation Goal**. In accordance with Section 6-129, the value of Contractor's participation shall be determined by subtracting from the total value of the Contract or Task Order, as applicable, any amounts that Contractor pays to direct subcontractors, and then multiplying the remainder by the percentage to be applied to total profit to determine the amount to which an MBE or WBE is entitled pursuant to the joint venture agreement, provided that where a participant in a joint venture is certified as both an MBE and a WBE, such amount shall be counted either toward the goal for MBEs or the goal for WBEs, but not both.

4. A. If **Participation Goals** have been established for this Contract, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Utilization Plan, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. In the event that this M/WBE Utilization Plan indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals**, the bid or proposal, as applicable, a pre- award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

B. (i) If this Contract is for a master services agreement or other requirements type contract that will result in the issuance of Task Orders that will be individually registered ("Master Services Agreement") and is subject to M/WBE **Participation Goals**, a prospective contractor shall be required to submit with its bid or proposal, as applicable, a completed Schedule B, M/WBE Participation Requirements for Master Services Agreements That Will Require Individually Registered Task Orders, Part II (page 2) indicating the prospective contractor's certification and required affirmations to make all reasonable good faith efforts to meet participation goals established on each individual Task Order issued pursuant to this Contract, or if a partial waiver is obtained or such goals are modified by the Agency, to meet the modified **Participation Goals** by soliciting and obtaining the participation of certified MBE and/or WBE firms. In the event that the Schedule B indicates that the bidder or proposer, as applicable, does not intend to meet the **Participation Goals** that may be established on Task Orders issued pursuant to this Contract, the bid or proposal, as applicable, shall be deemed nonresponsive.

(ii) **Participation Goals** on a Master Services Agreement will be established for individual Task Orders issued after the Master Services Agreement is awarded. If **Participation Goals** have been established on a Task Order, a contractor shall be required to submit a Schedule B – M/WBE Utilization Plan For Independently Registered Task Orders That Are Issued Pursuant to Master Services Agreements, Part II (see Pages 2-4) indicating: (a) whether the contractor is an MBE or WBE, or qualified joint venture; (b) the percentage of work it intends to award to direct subcontractors; and (c) in cases where the contractor intends to award direct subcontracts, a description of the type and dollar value of work designated for participation by MBEs and/or WBEs, and the time frames in which such work is scheduled to begin and end. The contractor must engage in good faith efforts to meet the **Participation Goals** as established for the Task Order unless Agency has granted the contractor a pre-award waiver of the Participation Goals in accordance with Section 6-129 and Part A, Section 10 below.

С. THE BIDDER/PROPOSER MUST COMPLETE THE SCHEDULE B INCLUDED HEREIN (SCHEDULE B, PART II). A SCHEDULE B SUBMITTED BY THE **BIDDER/PROPOSER WHICH DOES NOT INCLUDE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS (SEE SECTION V OF PART II) WILL BE DEEMED TO BE NON-RESPONSIVE, UNLESS A FULL WAIVER OF THE PARTICIPATION GOALS IS GRANTED** (SCHEDULE B. PART III). IN THE EVENT THAT THE CITY DETERMINES THAT THE BIDDER/PROPOSER HAS SUBMITTED A SCHEDULE B WHERE THE VENDOR CERTIFICATION AND REQUIRED AFFIRMATIONS ARE COMPLETED BUT OTHER ASPECTS OF THE SCHEDULE B ARE NOT COMPLETE, OR CONTAIN A COPY OR COMPUTATION ERROR THAT IS AT ODDS WITH THE VENDOR CERTIFICATION AND AFFIRMATIONS, THE BIDDER/PROPOSER WILL BE NOTIFIED BY THE AGENCY AND WILL BE GIVEN FOUR (4) CALENDAR DAYS FROM RECEIPT OF NOTIFICATION TO CURE THE SPECIFIED DEFICIENCIES AND RETURN A COMPLETED SCHEDULE B TO THE AGENCY. FAILURE TO DO SO WILL RESULT IN A DETERMINATION THAT THE **BID/PROPOSAL IS NON-RESPONSIVE. RECEIPT OF NOTIFICATION IS DEFINED AS THE** DATE NOTICE IS E-MAILED OR FAXED (IF THE BIDDER/PROPOSER HAS PROVIDED AN E-MAIL ADDRESS OR FAX NUMBER), OR NO LATER THAN FIVE (5) CALENDAR DAYS FROM THE DATE OF MAILING OR UPON DELIVERY, IF DELIVERED.

5. Where an M/WBE Utilization Plan has been submitted, the Contractor shall, within 30 days of issuance by Agency of a notice to proceed, submit a list of proposed persons or entities to which it intends to award subcontracts within the subsequent 12 months. In the case of multivear contracts, such list shall also be submitted every year thereafter. The Agency may also require the Contractor to report periodically about the contracts awarded by its direct subcontractors to indirect subcontractors (as defined in Section 6-129(c)(22)). PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor must identify all those to which it intends to award construction subcontracts for any portion of the Wicks trade work at the time of bid submission, regardless of what point in the life of the contract such subcontracts will occur. In identifying intended subcontractors in the bid submission, bidders may satisfy any Participation Goals established for this Contract by proposing one or more subcontractors that are MBEs and/or WBEs for any portion of the Wicks trade work. In the event that the Contractor's selection of a subcontractor is disapproved, the Contractor shall have a reasonable time to propose alternate subcontractors.

6. MBE and WBE firms must be certified by DSBS in order for the Contractor to credit such firms' participation toward the attainment of the **Participation Goals**. Such certification must occur prior to the

CITY OF NEW YORK DDC firms' commencement of work. A list of MBE and WBE firms may be obtained from the DSBS website at www.nyc.gov/buycertified, by emailing DSBS at buyer@sbs.nyc.gov, by calling (212) 513-6356, or by visiting or writing DSBS at 110 William St., New York, New York, 10038, 7th floor. Eligible firms that have not yet been certified may contact DSBS in order to seek certification by visiting www.nyc.gov/getcertified, emailing MWBE@sbs.nyc.gov, or calling the DSBS certification helpline at (212) 513-6311. A firm that is certified as both an MBE and a WBE may be counted either toward the goal for MBEs or the goal for WBEs, but not both. No credit shall be given for participation by a graduate MBE or graduate WBE, as defined in Section 6-129(c)(20).

7. Where an **M/WBE** Utilization Plan has been submitted, the Contractor shall, with each voucher for payment, and/or periodically as Agency may require, submit statements, certified under penalty of perjury, which shall include, but not be limited to;: the total amount the Contractor paid to its direct subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount direct subcontractors paid to indirect subcontractors; the names, addresses and contact numbers of each MBE or WBE hired as a subcontractor by the Contractor, and, where applicable, hired by any of the Contractor's direct subcontractors; and the dates and amounts paid to each MBE or WBE. The Contractor shall also submit, along with its voucher for final payment: the total amount it paid to subcontractors, and, where applicable pursuant to Section 6-129(j), the total amount its direct subcontractors; and a final list, certified under penalty of perjury, which shall include the name, address and contact information of each subcontractor that is an MBE or WBE, the work performed by, and the dates and amounts paid to each.

8. If payments made to, or work performed by, MBEs or WBEs are less than the amount specified in the Contractor's **M/WBE** Utilization Plan, Agency shall take appropriate action, in accordance with Section 6-129 and Article II below, unless the Contractor has obtained a modification of its **M/WBE** Utilization Plan in accordance with Section 6-129 and Part A, Section 11 below.

9. Where an **M/WBE** Utilization Plan has been submitted, and the Contractor requests a change order the value of which exceeds the greater of 10 percent of the Contract or Task Order, as applicable, or \$500,000, Agency shall review the scope of work for the Contract or Task Order, as applicable, and the scale and types of work involved in the change order, and determine whether the **Participation Goals** should be modified.

10. Pre-award waiver of the **Participation Goals**. (a) A bidder or proposer, or contractor with respect to a Task Order, may seek a pre-award full or partial waiver of the **Participation Goals** in accordance with Section 6-129, which requests that Agency change one or more **Participation Goals** on the grounds that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, or by demonstrating that it has legitimate business reasons for proposing a lower level of subcontracting in its M/WBE Utilization Plan.

(b) To apply for a full or partial waiver of the **Participation Goals**, a bidder, proposer, or contractor, as applicable, must complete Part III (Page 5) of Schedule B and submit such request no later than seven (7) calendar days prior to the date and time the bids, proposals, or Task Orders are due, in writing to the Agency by email at <u>poped@ddc.nyc.gov</u> or via facsimile at (718) 391-1886. Bidders, proposers, or contractors, as applicable, who have submitted requests will receive an Agency response by no later than two (2) calendar days prior to the due date for bids, proposals, or Task Orders; provided, however, that if that date would fall on a weekend or holiday, an Agency response will be provided by close-of-business on the business day before such weekend or holiday date.

(c) If the Agency determines that the **Participation Goals** are unreasonable in light of the availability of certified firms to perform the services required, it shall revise the solicitation and extend the deadline for bids and proposals, or revise the Task Order, as applicable.

CITY OF NEW YORK DDC STANDARD CONSTRUCTION CONTRACT March 2017 (d) Agency may grant a full or partial waiver of the **Participation Goals** to a bidder, proposer or contractor, as applicable, who demonstrates—before submission of the bid, proposal or Task Order, as applicable—that it has legitimate business reasons for proposing the level of subcontracting in its **M/WBE** Utilization Plan. In making its determination, Agency shall consider factors that shall include, but not be limited to, whether the bidder, proposer or contractor, as applicable, has the capacity and the bona fide intention to perform the Contract without any subcontracting, or to perform the Contract without awarding the amount of subcontracts represented by the **Participation Goals**. In making such determination, Agency may consider whether the **M/WBE** Utilization Plan is consistent with past subcontracting practices of the bidder, proposer or contractor, as applicable, whether the bidder, proposer, or contractor, as applicable, has made efforts to form a joint venture with a certified firm, and whether the bidder, proposer, or contractor, as applicable, has made good faith efforts to identify other portions of the Contract that it intends to subcontract.

11. Modification of M/WBE Utilization Plan. (a) A Contractor may request a modification of its M/WBE Utilization Plan after award of this Contract. PLEASE NOTE: If this Contract is a public works project subject to GML §101(5) (i.e., a contract valued at or below \$3M for projects in New York City) or if the Contract is subject to a project labor agreement in accordance with Labor Law §222, and the bidder is required to identify at the time of bid submission its intended subcontractors for the Wicks trades (plumbing and gas fitting; steam heating, hot water heating, ventilating and air conditioning (HVAC); and electric wiring), the Contractor may request a Modification of its M/WBE Utilization Plan as part of its bid submission. The Agency may grant a request for Modification of a Contractor's M/WBE Utilization Plan if it determines that the Contractor has established, with appropriate documentary and other evidence, that it made reasonable, good faith efforts to meet the Participation Goals. In making such determination, Agency shall consider evidence of the following efforts, as applicable, along with any other relevant factors:

- (i) The Contractor advertised opportunities to participate in the Contract, where appropriate, in general circulation media, trade and professional association publications and small business media, and publications of minority and women's business organizations;
- (ii) The Contractor provided notice of specific opportunities to participate in the Contract, in a timely manner, to minority and women's business organizations;
- (iii) The Contractor sent written notices, by certified mail or facsimile, in a timely manner, to advise MBEs or WBEs that their interest in the Contract was solicited;
- (iv) The Contractor made efforts to identify portions of the work that could be substituted for portions originally designated for participation by MBEs and/or WBEs in the M/WBE Utilization Plan, and for which the Contractor claims an inability to retain MBEs or WBEs;
- (v) The Contractor held meetings with MBEs and/or WBEs prior to the date their bids or proposals were due, for the purpose of explaining in detail the scope and requirements of the work for which their bids or proposals were solicited;
- (vi) The Contractor made efforts to negotiate with MBEs and/or WBEs as relevant to perform specific subcontracts, or act as suppliers or service providers;
- (vii) Timely written requests for assistance made by the Contractor to Agency's M/WBE liaison officer and to DSBS;
- (viii) Description of how recommendations made by DSBS and Agency were acted upon and an explanation of why action upon such recommendations did not lead to the desired level of participation of MBEs and/or WBEs.

Agency's M/WBE officer shall provide written notice to the Contractor of the determination.

(b) The Agency may modify the **Participation Goals** when the scope of the work has been changed by the Agency in a manner that affects the scale and types of work that the Contractor indicated in its **M/WBE** Utilization Plan would be awarded to subcontractors.

CITY	OF	NEW	YORK
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12. If this Contract is for an indefinite quantity of construction, standard or professional services or is a requirements type contract and the Contractor has submitted an **M/WBE** Utilization Plan and has committed to subcontract work to MBEs and/or WBEs in order to meet the **Participation Goals**, the Contractor will not be deemed in violation of the M/WBE Program requirements for this Contract with regard to any work which was intended to be subcontracted to an MBE and/or WBE to the extent that the Agency has determined that such work is not needed.

13. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, at least once annually during the term of the Contract or Task Order, as applicable, Agency shall review the Contractor's progress toward attainment of its M/WBE Utilization Plan, including but not limited to, by reviewing the percentage of work the Contractor has actually awarded to MBE and/or WBE subcontractors and the payments the Contractor made to such subcontractors.

14. If **Participation Goals** have been established for this Contract or a Task Order issued pursuant to this Contract, Agency shall evaluate and assess the Contractor's performance in meeting those goals, and such evaluation and assessment shall become part of the Contractor's overall contract performance evaluation.

PART B: MISCELLANEOUS

1. The Contractor shall take notice that, if this solicitation requires the establishment of an M/WBE Utilization Plan, the resulting contract may be audited by DSBS to determine compliance with Section 6-129. See §6-129(e)(10). Furthermore, such resulting contract may also be examined by the City's Comptroller to assess compliance with the M/WBE Utilization Plan.

2. Pursuant to DSBS rules, construction contracts that include a requirement for an **M/WBE** Utilization Plan shall not be subject to the law governing Locally Based Enterprises set forth in Section 6-108.1 of the Administrative Code of the City of New York.

3. DSBS is available to assist contractors and potential contractors in determining the availability of MBEs and/or WBEs to participate as subcontractors, and in identifying opportunities that are appropriate for participation by MBEs and/or WBEs in contracts.

4. Prospective contractors are encouraged to enter into qualified joint venture agreements with MBEs and/or WBEs as defined by Section 6-129(c)(30).

5. By submitting a bid or proposal the Contractor hereby acknowledges its understanding of the M/WBE Program requirements set forth herein and the pertinent provisions of Section 6-129, and any rules promulgated thereunder, and if awarded this Contract, the Contractor hereby agrees to comply with the M/WBE Program requirements of this Contract and pertinent provisions of Section 6-129, and any rules promulgated thereunder, all of which shall be deemed to be material terms of this Contract. The Contractor hereby agrees to make all reasonable, good faith efforts to solicit and obtain the participation of MBEs and/or WBEs to meet the required **Participation Goals**.

ARTICLE II. ENFORCEMENT

1. If Agency determines that a bidder or proposer, as applicable, has, in relation to this procurement, violated Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, Agency may disqualify such bidder or proposer, as applicable, from competing for this Contract and the Agency may revoke such bidder's or proposer's prequalification status, if applicable.

CITY OF NEW YORK DDC 2. Whenever Agency believes that the Contractor or a subcontractor is not in compliance with Section 6-129 or the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to any **M/WBE** Utilization Plan, Agency shall send a written notice to the Contractor describing the alleged noncompliance and offering the Contractor an opportunity to be heard. Agency shall then conduct an investigation to determine whether such Contractor or subcontractor is in compliance.

3. In the event that the Contractor has been found to have violated Section 6-129, the DSBS rules promulgated pursuant to Section 6-129, or any provision of this Contract that implements Section 6-129, including, but not limited to, any **M/WBE** Utilization Plan, Agency may determine that one of the following actions should be taken:

- (a) entering into an agreement with the Contractor allowing the Contractor to cure the violation;
- (b) revoking the Contractor's pre-qualification to bid or make proposals for future contracts;
- (c) making a finding that the Contractor is in default of the Contract;
- (d) terminating the Contract;
- (e) declaring the Contractor to be in breach of Contract;
- (f) withholding payment or reimbursement;
- (g) determining not to renew the Contract;
- (h) assessing actual and consequential damages;
- (i) assessing liquidated damages or reducing fees, provided that liquidated damages may be based on amounts representing costs of delays in carrying out the purposes of the M/WBE Program, or in meeting the purposes of the Contract, the costs of meeting utilization goals through additional procurements, the administrative costs of investigation and enforcement, or other factors set forth in the Contract;
- (j) exercising rights under the Contract to procure goods, services or construction from another contractor and charge the cost of such contract to the Contractor that has been found to be in noncompliance; or
- (k) taking any other appropriate remedy.

4. If an **M/WBE** Utilization Plan has been submitted, and pursuant to this Article II, Section 3, the Contractor has been found to have failed to fulfill its **Participation Goals** contained in its **M/WBE** Utilization Plan or the **Participation Goals** as modified by Agency pursuant to Article I, Part A, Section 11, Agency may assess liquidated damages in the amount of ten percent (10%) of the difference between the dollar amount of work required to be awarded to MBE and/or WBE firms to meet the **Participation Goals** and the dollar amount the Contractor actually awarded and paid, and/or credited, to MBE and/or WBE firms. In view of the difficulty of accurately ascertaining the loss which the City will suffer by reason of Contractor's failure to meet the **Participation Goals**, the foregoing amount is hereby fixed and agreed as the liquidated damages that the City will suffer by reason of such failure, and not as a penalty. Agency may deduct and retain out of any monies which may become due under this Contract the amount of any such liquidated damages; and in case the amount which may become due under this Contract shall be less than the amount of liquidated damages suffered by the City, the Contractor shall be liable to pay the difference.

5. Whenever Agency has reason to believe that an MBE and/or WBE is not qualified for certification, or is participating in a contract in a manner that does not serve a commercially useful function (as defined in Section 6-129(c)(8)), or has violated any provision of Section 6-129, Agency shall notify the Commissioner of DSBS who shall determine whether the certification of such business enterprise should be revoked.

CITY OF NEW YORK	
DDC	

6. Statements made in any instrument submitted to Agency pursuant to Section 6-129 shall be submitted under penalty of perjury and any false or misleading statement or omission shall be grounds for the application of any applicable criminal and/or civil penalties for perjury. The making of a false or fraudulent statement by an MBE and/or WBE in any instrument submitted pursuant to Section 6-129 shall, in addition, be grounds for revocation of its certification.

7. The Contractor's record in implementing its M/WBE Utilization Plan shall be a factor in the evaluation of its performance. Whenever Agency determines that a Contractor's compliance with an M/WBE Utilization Plan has been unsatisfactory, Agency shall, after consultation with the City Chief Procurement Officer, file an advice of caution form for inclusion in VENDEX as caution data.

IN WITNESS WHEREOF, the Commissioner, on behalf of the City of New York, and the Contractor, have executed this agreement in quadruplicate, two parts of which are to remain with the Commissioner, another to be filed with the Comptroller of the City, and the fourth to be delivered to the Contractor.

THE CITY OF NEW YORK

By:_____Commissioner

CONTRACTOR:

By:_____ (Member of Firm or Officer of Corporation)

Title:_____

(Where Contractor is a Corporation, add): Attest:

Secretary

(Seal)

CITY OF NEW YORK DDC

CONTRACT SIGNATURE PAGE

This Contract is entered by and between the City of New York ("City"), acting by and through the **DEPARTMENT OF DESIGN AND CONSTRUCTION**, and **DIFAZIO IND LLC** ("Contractor").

This Contract consists of this contract signature page as well as the following documents ("Contract Documents") which are located in the Documents tab of the PASSPort record titled **85021B0131-MIBBNC04A**.

- 1. (Question answer) MIBBNC04A Bid Bond.pdf Apr 11 2022 4:36PM
- 2. (Question answer) QUALIFICATION_FORM.pdf Apr 11 2022 4:36PM
- 3. BROKER'S CERTIFICATION Apr 20 2022 7:06PM
- 4. DiFazio Industries LLC MIBBNC04A Cured Schedule B Apr 11 2022 5:37PM
- 5. DISABILITY INSURANCE Apr 20 2022 7:46PM
- 6. INSURANCE CERTIFICATE Apr 20 2022 7:47PM
- 7. MIBBNC04A Contract Drawings Apr 11 2022 4:36PM
- 8. MIBBNC04A volume 2 Apr 11 2022 4:36PM
- 9. MIBBNC04A Volume 3 Apr 11 2022 4:36PM
- 10. MIBBNC04A_Bidder #1_DiFazio Industries LLC_Bid Schedule from PASSPort Apr 11 2022 5:46PM
- 11. NOTICE_TO_BIDDERS_COVID19_R3 Apr 11 2022 4:36PM
- 12. Proposal/Bid Apr 11 2022 4:36PM
- 13. SECURITY/BOND PAYMENT Apr 20 2022 7:13PM
- 14. SECURITY/BOND PERFORMANCE Apr 20 2022 7:14PM
- 15. Volume 1 Apr 11 2022 4:36PM
- 16. WORKER'S COMPENSATION Apr 20 2022 7:45PM

The above order does not represent an order of precedence. The Contract shall be governed by the order of precedence, if any, in the Contract Documents or by ordinary contract principles if no such order of precedence exists.

Each party is signing this Contract electronically on the date stated in that party's electronic signature.

The Cit	y of New York	
By: DE	PARTMENT OF DESIGN AND	CONSTRUCTION
	ERIC MACFARLANE	
(Signat	<i>ure</i>)	
Name:	ERIC MACFARLANE	
Title:	Deputy Commissione	r
Date:	5/3/2022 10:50:09	PDT
Contrac		
By: DI	FAZLO Docusigned by C	
	Joseph LoBrutto	
(Signat	<i>ure</i>)	-
Name:	Joseph LoBrutto	

 Business Director

 Date:
 5/3/2022 | 13:32:43 EDT

ACKNOWLEDGEMENT OF PRINCIPAL, IF A CORPORATION

State of _____ County of _____ ss:

On this _____ day of _____, ____, before me personally came ______ to me known who, being by me duly sworn did depose and say that he resides at ______

_____ that he is the ___

of the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this ______ day of ______, ____, before me personally appeared _______ to me known, and known to me to be one of the members of the firm of

Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of _____ ss:

On this _____ day of _____, ____, before me personally appeared _____

to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

ACKNOWLEDGEMENT BY COMMISSIONER

State of _____ County of _____ ss:

On this _____ day of _____, ____, before me personally came _____

to me known, and known to be the Deputy Commissioner of the Department of Design and Construction of The City of New York, the person described as such in and who as such executed the foregoing instrument and acknowledged to me that he executed the same as Deputy Commissioner for the purposes therein mentioned.

Notary Public or Commissioner of Deeds

AUTHORITY

MAYOR'S CERTIFICATE NO. CBXDATEDBUDGET DIRECTOR'S CERTIFICATE NO.DATED

TION

APPROPRIATION COMMISSIONER'S CERTIFICATE

In conformity with the provisions of Section 6-101 of the Administrative Code of the City of New York, it is hereby certified that the estimated cost of the work, materials and supplies required by the within Contract, amounting to

Dollars (\$ _____)

is chargeable to the fund of the Department of Design and Construction entitled Code

Department of Design and Construction

I hereby certify that the specifications contained herein comply with the terms and conditions of the BUDGET.

Commissioner

COMPTROLLER'S CERTIFICATE

The City of New York_____

Pursuant to the provisions of Section 6-101 of the Administrative Code of the City of New York, I hereby certify that there remains unapplied and unexpended a balance of the above mentioned fund applicable to this Contract sufficient to pay the estimated expense of executing the same viz:

\$_____

Comptroller

MAYOR'S CERTIFICATE OR CERTIFICATE OF THE DIRECTOR OF THE BUDGET

PERFORMANCE BOND #1 (Page 1)

PERFORMANCE BOND #1

KNOW ALL PERSONS BY THESE PRESENTS:, That we,

hereinafter referred to as the "Principal," and,

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns in the penal sum of

(\$______) Dollars, lawful money of the United States for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

PERFORMANCE BOND #1 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to (1) pay the City the cost to complete the contract as determined by the City in excess of the balance of the Contract held by the City, plus any damages or costs to which the City is entitled, up to the full amount of the above penal sum, (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof, or (3) tender a completion Contractor that is acceptable to the City. The Surety (Sureties) further agrees, at its option, either to notify the City that it elects to pay the city the cost of completion plus any applicable damages and costs under option (1) above, or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and, if the Surety elects to fully perform and complete the Work, then to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. If the Surety elects to tender payment pursuant to (1) above, then the Surety shall tender such amount within fifteen (15) business days notification from the City of the cost of completion. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and complete all Work as provided herein, or to tender a completion contractor.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, and waivers, and hereby expressly stipulates and agrees that any and all things done and omitted to be done by and in relation to subcontractors shall have the same effect as to said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal. Notwithstanding the above, if the City makes payments to the Principal before the time required by the contract that in the aggregate exceed \$100,000 or 10% of the Contract price, whichever is less, and that have not become earned prior to the Principal being found to be in default, then all payments made to the Principal before the time required by the Contract shall be added to the remaining contract value available to be paid for the completion of the Contract as if such sums had not been paid to the Principal, but shall not provide a basis for non-performance of its obligation to pay the City the cost of completion, to commence and to complete all Work as provided herein, or to tender a completion contractor.

PERFORMANCE BOND #1 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

	day of		, 20	
(Seal)				
			Principal	(L.S.)
		By:		
(Seal)			Surety	
		By:		
(Seal)			Surety	
(Seal)			Surety	
		By:		
(Seal)			Surety	
		By:		
(Seal)			Surety	•
		By:		
Bond Premium Rate			<u>.</u>	
Bond Premium Cost				

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

CITY OF NEW YORK	
DDC	

PERFORMANCE BOND #1 (Page 4)

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION

State of	Coun	ty of	SS:
			before me personally
came to me known, who, at	being by me duly sworn did de	pose and say that he/she resid	les
		; that he/she is the	
			nd that he/she signed his/her name to v authorized and binding act thereof.
Notary Public or Co	ommissioner of Deeds.		
	ACKNOWLEDGMENT	OF PRINCIPAL IF A PAI	<u>RTNERSHIP</u>
State of	Coun	ty of	ss:
On this	day of	, 20	before me personally
came	, <u>,</u>		
		spose and say that he/she resident	des
at		• that he/she is	partner of
	, a limited/general par , the partnership describ	tnership existing under the la	ws of the State of
	ed his/her name to the foregoin		
Notary Public or Co	ommissioner of Deeds.		
	ACKNOWLEDGMENT	<u>COF PRINCIPAL IF AN IN</u>	NDIVIDUAL
State of	Coun	ty of	ss:
On this	day of	, 20	before me personally
came to me known, who,.	, being by me duly sworn did de	pose and say that he/she resid	les
at			
anh a mih a 1 4 - 41	: this is a ten and a set a	, and that he/she is the i	ndividual whose name is
	ithin instrument and acknowled lividual executed the instrument		hature on the
mon ament, salu mu	invidual executed the motifulnell	·•	

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * * * * *

Affix Acknowledgments and Justification of Sureties.

Bond No. 015216615

PERFORMANCE BOND #2 (Page 1)

PERFORMANCE BOND #2

KNOW ALL PERSONS BY THESE PRESENTS:, That we, DiFazio Industries, LLC

That we, <u>Dif abio industri</u>

38 Kinsey Place

Staten Island NY 10303

hereinafter referred to as the "Principal," and, Liberty Mutual Insurance Company

175 Berkeley Street

Boston, MA 02116

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns in the penal sum of Fourteen Million Three Hundred Forty Two Thousand Three Hundred Forty Two Dollars and 77/100

(<u>\$ 14,342,342.77</u>) Dollars, lawful money of the United States for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

Project No. MIBBNC04A, Construction of Best Management Practices BMP NC-06 Boundary

Avenue and BMP NC-15 Laconia Avenue.

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns, shall well and faithfully perform the said Contract and all modifications, amendments, additions and alterations thereto that may hereafter be made, according to its terms and its true intent and meaning, including repair and or replacement of defective work and guarantees of maintenance for the periods stated in the Contract, and shall fully indemnify and save harmless the City from all cost and damage which it may suffer by reason of the Principal's default of the Contract, and shall fully reimburse and repay the City for all outlay and expense which the City may incur in making

PERFORMANCE BOND #2 (Page 2)

good any such default and shall protect the said City of New York against, and pay any and all amounts, damages, cost and judgments which may or shall be recovered against said City or its officers or agents or which the said City of New York may be called upon to pay any person or corporation by reason of any damages arising or growing out of the Principal's default of the Contract, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety (Sureties), for value received, hereby stipulates and agrees, upon written notice from the City that the City has determined that the Principal is in default of the Contract, to either (1) pay the full amount of the above penal sum in complete discharge and exoneration of this bond and of all the liabilities of the Surety relating to this bond, or (2) fully perform and complete the Work to be performed under the Contract, pursuant to the terms, conditions, and covenants thereof. The Surety (Sureties) further agrees, at its option, either to tender the penal sum or to commence and diligently perform the Work specified in the Contract, including physical site work, within twenty-five (25) business days after written notice thereof from the City and to complete all Work within the time set forth in the Contract or such other time as agreed to between the City and Surety in accordance with the Contract. The Surety and the City reserve all rights and defenses each may have against the other; provided, however, that the Surety expressly agrees that its reservation of rights shall not provide a basis for non-performance of its obligation to commence and to complete all Work as provided herein.

The Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties) and its bond shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or to the said Contract or the Work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any Work to be performed or any moneys due or to become due thereunder; and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that 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 said Surety (Sureties) as though done or omitted to be done by or in relation to said Principal.

PERFORMANCE BOND #2 (Page 3)

IN WITNESS WHEREOF, The Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this

13th	day of	April	20_22	
(Seal)		DiFazio In	lustries, LHC (I Principal	L.S.)
(Seal)			itual Insurance Company Surety	<u>.</u>
		By: Of	Jaclyn Thomas, Attorney-	In-Fact .
(Seal)		By:	Surety	<u>.</u>
(Seal)			Surety	<u> </u>
		Ву:		<u>.</u>
(Seal)			Surety	<u> </u>
		Ву:		<u> </u>
(Seal)			Surety	<u> </u>
		Ву:		
Bond Premium Rate	Sliding Scale		<u>.</u>	
Bond Premium Cost	\$95,719.00		<u>.</u>	

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

CITY	OF	NEW	YORK
		Ι	DDC

106

LIMITED LIABILITY COMPANY ACKNOWLEDGMENT

STATE OF NEW YORK

COUNTY OF _____ Richmond SS:

,

April 2022 before me personally appeared On this <u>13th</u> day of Joseph LoBrutto to me known, who by me being duly sworn, did depose and say: that (s)he is a member or manager of the limited liability company of DiFazio Industries, LLC, and that (s)he is authorized to execute the attached surety bond in the name of and for the limited liability company above named, and that (s)he acknowledge to me that (s)he signed the attached instrument pursuant to such authority.

SOFIA PAVLIDIS Notary Public, State of New York No. 43=4931677 Qualified in Richmond County My commission expires: <u>7/18/2022</u> Commission Expires July 18, 2022

ACKNOWLEDGMENT OF PRINCIPAL IF A CORPORATION State of County of ss:	
State of County of ss:	
5.50 poor • Date	
On this day of, 20 before me personally came	
came, to me known, who, being by me duly sworn did depose and say that he resides at; that he/she is the; that he/she is the; of the corporation described in and which executed the foregoing instrument; that he/she signed his/her name	to the
foregoing instrument by order of the directors of said corporation as the duly authorized and binding act thereof	
Notary Public or Commissioner of Deeds.	
ACKNOWLEDGMENT OF PRINCIPAL IF A PARTNERSHIP	
State of County of ss:	
On this day of, 20 before me personally came	
came, to me known, who, being by me duly sworn did depose and say that he/she resides at	
; that he/she is partn	er of
; that he/she is partn, a limited/general partnership existing under the laws of the State of, the partnership described in and which executed the foregoing instrument; and that he/she signed his/her name to the foregoing instrument as the duly authorized and binding act of said partnership.	
Notary Public or Commissioner of Deeds	
ACKNOWLEDGMENT OF PRINCIPAL IF AN INDIVIDUAL	
State of County of ss:	
On this day of, 20 before me personally	
came, to me known, who, being by me duly sworn did depose and say that he/she resides at	
, and that he/she is the individual whose name is	
subscribed to the within instrument and acknowledged to me that by his/her signature on the instrument, said individual executed the instrument.	

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * * * * *

Affix Acknowledgments and Justification of Sureties.

107

CITY OF NEW YORK
DDC

ACKNOWLEDGEMENT OF SURETY COMPANY

STATE OF

COUNTY OF

ON THE 13th DAY OF April, 2022 BEFORE ME PERSONALLY APPEARED Jaclyn Thomas TO ME KNOWN, WHO BEING BY ME DULY SWORN, DID DEPOSE AND SAY; THAT (S)HE IS THE ATTORNEY-IN-FACT OF Liberty Mutual Insurance Company, THE CORPORATION THAT EXECUTED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE SAME.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY OFFICIAL SEAL, AT MY OFFICE IN THE ABOVE COUNTY, THE DAY AND YEAR WRITTEN ABOVE.

Notary Public

Sandy S. James-Browne Notary Public State of New Jersey My commission expires September 19, 2026



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

> Liberty Mutual Insurance Company The Ohio Casualty Insurance Company West American Insurance Company

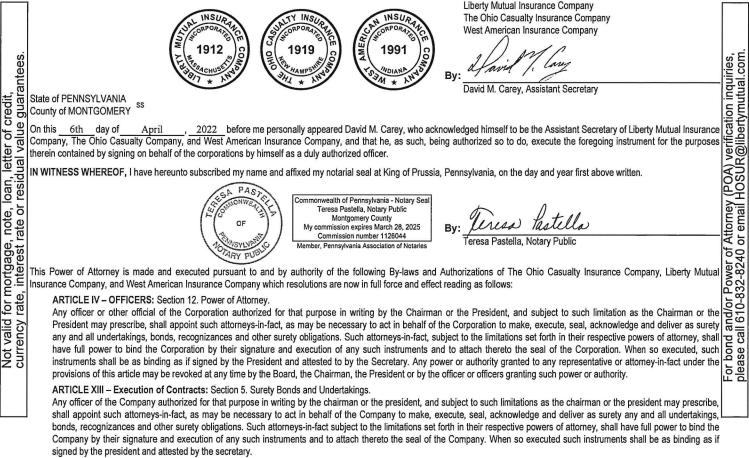
Certificate No: 8207604-985316

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Edward Reilly, Jaclyn Thomas, Kevin T. Walsh, Jr.; Krystal L. Stravato; Marisol Mojica; Michael Marino; Thomas MacDonald

all of the city of Whippany state of NJ each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed 6th thereto this day of April 2022 .



Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-infact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 13th day of April 2022



LMS-12873 LMIC OCIC WAIC Multi Co 02/21



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LIBERTY MUTUAL INSURANCE COMPANY

FINANCIAL STATEMENT — DECEMBER 31, 2020

Liabilities

Assets				
Cash and Bank Deposits	\$2,058,007,542			
*Bonds — U.S Government	2,209,760,437			
*Other Bonds	15,902,755,586			
*Stocks	18,517,107,230			
Real Estate	193,169,809			
Agents' Balances or Uncollected Premiums	6,970,170,469			
Accrued Interest and Rents	118,399,147			
Other Admitted Assets	12,079,597,645			

	lics	
Unearned Premiums		\$8,448,706,991
Reserve for Claims and Claims Exp	pense	23,879,216,613
Funds Held Under Reinsurance Tre	eaties	343,068,613
Reserve for Dividends to Policyhol	lders	1,192,716
Additional Statutory Reserve		77,397,000
Reserve for Commissions, Taxes a	nd	
Other Liabilities		6,279,510,804
Total		\$39,029,092,737
Special Surplus Funds	\$178,155,102	
Capital Stock	10,000,075	
Paid in Surplus	10,945,045,214	
Unassigned Surplus	7,886,674,737	
Surplus to Policyholders	1	19,019,875,128
Total Liabilities and Surplus		58,048,967,865



* Bonds are stated at amortized or investment value; Stocks at Association Market Values. The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2020, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 25th day of March, 2021.

TAMiholajewski.

Assistant Secretary

Bond No. 015216615

PAYMENT BOND (Page 1)

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we, DiFazio Industries, LLC

38 Kinsey Place

Staten Island NY 10303

hereinafter referred to as the "Principal", and Liberty Mutual Insurance Company

175 Berkeley Street

Boston, MA 02116

hereinafter referred to as the "Surety" ("Sureties") are held and firmly bound to THE CITY OF NEW YORK, hereinafter referred to as the "City" or to its successors and assigns, in the penal sum of

Fourteen Million Three Hundred Forty Two Thousand Three Hundred Forty Two Dollars and 77/100

(\$14,342,342.77) Dollars, lawful money of the United States, for the payment of which said sum of money well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to enter, or has entered, into a Contract in writing with the City for

Project No. MIBBNC04A, Construction of Best Management Practices BMP NC-06 Boundary

Avenue and BMP NC-15 Laconia Avenue.

a copy of which Contract is annexed to and hereby made a part of this bond as though herein set forth in full;

NOW, THEREFORE, the conditions of this obligation are such that if the Principal, his or its representatives or assigns and other Subcontractors to whom Work under this Contract is sublet and his or their successors and assigns shall promptly pay or cause to be paid all lawful claims for

(a) Wages and compensation for labor performed and services rendered by all persons engaged in the prosecution of the Work under said Contract, and any amendment or extension thereof or addition thereto, whether such persons be agents servants or employees of the Principal or any such Subcontractor, including all persons so engaged who perform the work of laborers or mechanics at or in the vicinity of the site

CITY OF NEW YORK DDC

PAYMENT BOND (Page 2)

of the Project regardless of any contractual relationship between the Principal or such Subcontractors, or his or their successors or assigns, on the one hand and such laborers or mechanics on the other, but not including office employees not regularly stationed at the site of the project; and

(b) Materials and supplies (whether incorporated in the permanent structure or not), as well as teams, fuels, oils, implements or machinery furnished, used or consumed by said Principal or any subcontractor at or in the vicinity of the site of the Project in the prosecution of the Work under said Contract and any amendment or extension thereof or addition thereto; then this obligation shall be void, otherwise to remain in full force and effect.

This bond is subject to the following additional conditions, limitations and agreements:

(a) The Principal and Surety (Sureties) agree that this bond shall be for the benefit of any materialmen or laborer having a just claim, as well as the City itself.

(b) All persons who have performed labor, rendered services or furnished materials and supplies, as aforesaid, shall have a direct right of action against the Principal and his, its or their successors and assigns, and the Surety (Sureties) herein, or against either or both or any of them and their successors and assigns. Such persons may sue in their own name, and may prosecute the suit to judgment and execution without the necessity of joining with any other persons as party plaintiff.

(c) The Principal and Surety (Sureties) agree that neither of them will hold the City liable for any judgment for costs of otherwise, obtained by either or both of them against a laborer or materialman in a suit brought by either a laborer or materialman under this bond for moneys allegedly due for performing work or furnishing material.

(d) The Surety (Sureties) or its successors and assigns shall not be liable for any compensation recoverable by an employee or laborer under the Workmen's Compensation Law.

(e) In no event shall the Surety (Sureties), or its successors or assigns, be liable for a greater sum than the penalty of this bond or be subject to any suit, action or proceeding hereon that is instituted by any person, firm, or corporation hereunder later than two years after the complete performance of said Contract and final settlement thereof.

The Principal, for himself and his successors and assigns, and the Surety (Sureties), for itself and its successors and assigns, do hereby expressly waive any objection that might be interposed as to the right of the City to require a bond containing the foregoing provisions, and they do hereby further expressly waive any defense which they or either of them might interpose to an action brought hereon by any person, firm or corporation, including subcontractors, materialmen and third persons, for work, labor, services, supplies or material performed rendered, or furnished as aforesaid upon the ground that there is no law authorizing the City to require the foregoing provisions to be place in this bond.

And the Surety (Sureties), for value received, for itself and its successors and assigns, hereby stipulates and agrees that the obligation of said Surety (Sureties), and its bonds shall be in no way impaired or affected by any extension of time, modification, omission, addition, or change in or of the said Contract or the work to be performed thereunder, or by any payment thereunder before the time required therein, or by any waiver of any provisions thereof, or by any assignment, subletting or other transfer thereof or of any part thereof, or of any Work to be performed, or any moneys due to become due thereunder and said Surety (Sureties) does hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulates and agrees that 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 said Surety (Sureties) as though done or omitted to be done or in relation to said Principal.

CITY OF NEW YORK DDC

PAYMENT BOND (Page 3)

IN WITNESS WHEREOF, the Principal and the Surety (Sureties) have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereunto affixed and these presents to be signed by their proper officers, this <u>13th</u> day of <u>April</u>, <u>2022</u>.

(Seal)	DiFazio Industries, LICA (L.S.) Principal By:
(Seal)	Liberty Mutual Insurance Company
	Surety
	By: To hon
	Jaclyn Thomas, Attorney-In-Fact
(Seal)	\bigcirc
	Surety
	Ву:
(Seal)	
(5041)	Surety
	Ву:
(Seal)	
	Surety
	Ву:

If the Contractor (Principal) is a partnership, the bond should be signed by each of the individuals who are partners.

If the Contractor (Principal) is a corporation, the bond should be signed in its correct corporate name by a duly authorized officer, agent, or attorney-in-fact.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Contract.

LIMITED LIABILITY COMPANY ACKNOWLEDGMENT

STATE OF NEW YORK

COUNTY OF <u>Richmond</u> SS:

On this 13th day of _____April _____2022 before me personally appeared Joseph LoBrutto to me known, who by me being duly sworn, did depose and say: that (s)he is a member or manager of the limited liability company of DiFazio Industries, LLC, and that (s)he is authorized to execute the attached surety bond in the name of and for the limited liability company above named, and that (s)he acknowledge to me that (s)he signed the attached instrument pursuant to such authority.

> SOFIA PAVLIDIS Notary Public, State of New York No. 43-4931677 Qualified in Richmond County Commission Expires July 18, 2022

Actio Paulidis Notary Public My commission expires: 7/18/2022

PAYMENT BOND (Page 4)

of

ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION

State of ______ County of ______ ss:

On this _____ day of _____, ____, before me personally came _____ to me known, who, being by me duly sworn did depose and say that he resides at _____

that he is the

the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP

State of _____ County of _____ ss:

On this _____ day of _____, ____, before me personally appeared _____ to me known, and known to me to be one of the members of the firm of

described in and who executed the foregoing instrument; and he acknowledged to me that he executed the same as and for the act and deed of said firm.

Notary Public or Commissioner of Deeds

ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL

State of _____ County of ______ ss:

On this _____ day of _____, ____, before me personally appeared _____

to me known, and known to me to be the person described in and who executed the foregoing instrument; and acknowledged that he executed the same.

Notary Public or Commissioner of Deeds

Each executed bond should be accompanied by: (a) appropriate acknowledgments of the respective parties; (b) appropriate duly certified copy of Power of Attorney or other certificate of authority where bond is executed by agent, officer or other representative of Principal or Surety; (c) a duly certified extract from By-Laws or resolutions of Surety under which Power of Attorney or other certificate of authority of its agent, officer or representative was issued, and (d) certified copy of latest published financial statement of assets and liabilities of Surety.

* * * * * * * *

Affix Acknowledgments and Justification of Sureties.

CITY OF NEW YORK DDC

111

STANDARD CONSTRUCTION CONTRACT March 2017

ACKNOWLEDGEMENT OF SURETY COMPANY

STATE OF

COUNTY OF

ON THE 13th DAY OF April, 2022 BEFORE ME PERSONALLY APPEARED <u>Jaclyn Thomas</u> TO ME KNOWN, WHO BEING BY ME DULY SWORN, DID DEPOSE AND SAY; THAT (S)HE IS THE ATTORNEY-IN-FACT OF <u>Liberty</u> <u>Mutual Insurance Company</u>, THE CORPORATION THAT EXECUTED THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE SAME.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY OFFICIAL SEAL, AT MY OFFICE IN THE ABOVE COUNTY, THE DAY AND YEAR WRITTEN ABOVE.

Notary Public

Sandy S. James-Browne Notary Public State of New Jersey My commission expires September 19, 2026



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

> Liberty Mutual Insurance Company The Ohio Casualty Insurance Company West American Insurance Company

Certificate No: 8207604-985316

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Edward Reilly; Jaclyn Thomas; Kevin T. Walsh, Jr.; Krystal L. Stravato; Marisol Mojica; Michael Marino; Thomas MacDonald

all of the city of Whippany state of NJ each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons. IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 6th day of April 2022 Liberty Mutual Insurance Company INSUR The Ohio Casualty Insurance Company INSI INS West American Insurance Company 1991 912 1919 guarantees. For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com Bv David M. Carey, Assistant Secretary State of PENNSYLVANIA credit SS County of MONTGOMERY value On this 2022 _ before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance 6th day of April of Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes letter therein contained by signing on behalf of the corporations by himself as a duly authorized officer. loan, lette r residual IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written. PAS commonwealth of Pennsylvania - Notary Seal , note, l rate or Teresa Pastella, Notary Public By: firesa Pastella Montgomery County My commission expires March 28, 2025 Commission number 1126044 r mortgage, r VSYLVE Member, Pennsylvania Association of Notaries RY PU This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows: Ð ARTICLE IV - OFFICERS: Section 12. Power of Attorney. for Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the Not valid f currency r President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority. ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary. Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-infact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed. I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do

hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 13th day of April





By:

if lully

Renee C. Llewellyn, Assistant Secretary

LMS-12873 LMIC OCIC WAIC Multi Co 02/21



LIBERTY MUTUAL INSURANCE COMPANY

FINANCIAL STATEMENT — DECEMBER 31, 2020

Liabilities

Assets					
Cash and Bank Deposits	\$2,058,007,542				
*Bonds — U.S Government	2,209,760,437				
*Other Bonds	15,902,755,586				
*Stocks	18,517,107,230				
Real Estate	193,169,809				
Agents' Balances or Uncollected Premiums	6,970,170,469				
Accrued Interest and Rents	118,399,147				
Other Admitted Assets	12,079,597,645				

Liabili	lics				
Unearned Premiums	\$8,448,706,991				
Reserve for Claims and Claims Exp	bense	23,879,216,613			
Funds Held Under Reinsurance Tre	aties	343,068,613			
Reserve for Dividends to Policyhol	ders	1,192,716			
Additional Statutory Reserve		77,397,000			
Reserve for Commissions, Taxes an	nd				
Other Liabilities		6,279,510,804			
Total	••••••	\$39,029,092,737			
Special Surplus Funds	\$178,155,102				
Capital Stock	10,000,075				
Paid in Surplus	10,945,045,214				
Unassigned Surplus	7,886,674,737				
Surplus to Policyholders]	19,019,875,128			
Total Liabilities and Surplus <u>\$58,048,967,865</u>					
	Unearned Premiums Reserve for Claims and Claims Exp Funds Held Under Reinsurance Tre Reserve for Dividends to Policyhol Additional Statutory Reserve Reserve for Commissions, Taxes an Other Liabilities Total Special Surplus Funds Capital Stock Paid in Surplus Unassigned Surplus Surplus to Policyholders	Capital Stock 10,000,075 Paid in Surplus 10,945,045,214 Unassigned Surplus 7,886,674,737 Surplus to Policyholders 10,000,075			



* Bonds are stated at amortized or investment value; Stocks at Association Market Values. The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the state of Massachusetts Department of Insurance.

I, TIM MIKOLAJEWSKI, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2020, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Seattle, Washington, this 25th day of March, 2021.

TAMiholajewski.

Assistant Secretary



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DIFAIND-01

~	CERTIFICATE OF LIABILITY INSURANCE						-(MM/DD/YYYY) /11/2022						
CE BE	ERT ELO	IFICATE DOES	S N RTIF	OT AFFIRMAT	TIVEL	Y OF	R OF INFORMATION ON R NEGATIVELY AMEND, DOES NOT CONSTITU ERTIFICATE HOLDER.	EXTE	ND OR AL	FER THE CO	OVERAGE AFFORDED	TE HO BY TI	DLDER. THIS
lf	SU	BROGATION IS	sν	VAIVED, subje	ct to	the	DITIONAL INSURED, the terms and conditions of ficate holder in lieu of su	the po	licy, certain	policies may			
PROD	UCE	R						CONTA	CT Heather	Black			
		n Global LLC							o, Ext): (516) 2		FAX (A/C, No)		
390 I 3rd F		th Broadway									ericanglobal.com	•	
		NY 11753						ADDRL					NAIC #
											ity Company		25658
INSU											ity Company of Amer	ica	25666
		DiFerie In									nsurance Company	100	25615
		38 Kinsey		stries, LLC ace							Liability Co		38318
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201		AGES		055		~ A TE		INSURE	K F :				
			тц				ENUMBER: SURANCE LISTED BELOWI				REVISION NUMBER:		
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INSR LTR		TYPE OF IN				SUBR			POLICY EFF	POLICY EXP (MM/DD/YYYY)		TS	
A	Х	COMMERCIAL GE			11130						EACH OCCURRENCE	\$	1,000,000
		CLAIMS-MAD	E	XOCCUR	x		VT2NKEXGL-2G429702-I	ND-22	2/21/2022	2/21/2023	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	1,000,000
											MED EXP (Any one person)	\$	1,000,000
											PERSONAL & ADV INJURY	\$	2,000,000
	GEN										GENERAL AGGREGATE	\$	2,000,000
		POLICY X PRI JEC	CT	LOC							PRODUCTS - COMP/OP AGG	\$\$	2,000,000
В	AUT		Y								COMBINED SINGLE LIMIT (Ea accident)	\$	1,000,000
	Х	ANY AUTO					VTH-CAP-5G429714-TIA-	-22	2/21/2022	2/21/2023	BODILY INJURY (Per person)	\$	
		OWNED AUTOS ONLY		SCHEDULED AUTOS							BODILY INJURY (Per accident	1	
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С	WOF	RKERS COMPENSAT	ΓΙΟΝ		+	1					X PER OTH- STATUTE ER	\$	
-	AND	EMPLOYERS' LIAB	ILITY	Y/N			UB-001T586632-22-25-D		2/21/2022	2/21/2023			1,000,000
	OFFI	PROPRIETOR/PART ICER/MEMBER EXCL Idatory in NH)		D?	N / A						E.L. EACH ACCIDENT	\$	1,000,000
	If yes	s, describe under									E.L. DISEASE - EA EMPLOYE		1,000,000
		CRIPTION OF OPER	RATIC	UNS below	+		1000586874221		2/21/2022	2/21/2023	E.L. DISEASE - POLICY LIMIT Occurrence/Aggregate	\$	5,000,000
-		cess Liability					MR22EXC864545IV		2/21/2022	2/21/2023	Occurrence/Aggregate		4,000,000
-15 L Profe St. Pa	ACC essionaul S	TION OF OPERATION tract No. MIBBN ONIA AVENUE. onal Liability Surplus Lines Ir CE 16P22619					0 101, Additional Remarks Schedu DNSTRUCTION OF BEST N	ile, may b IANAG	e attached if mo EMENT PRA	re space is requi CTICES BMP	red) NC- 6 BOUNDARY AVEN	UE AM	ID BMP NC-

Effective 1/10/2022-2/21/2023 SEE ATTACHED ACORD 101

CERTIFICATE HOLDER	CANCELLATION
NYC Department of Design and Construction 30-30 Thomson Avenue Long Island City, NY 11101	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

American Global L © 1988-2015 ACORD CORPORATION. All rights reserved.

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The ACORD name and logo are registered marks of ACORD

LOC #: 1

ADDITIONAL REMARKS SCHEDULE

Page 1 of 1

AGENCY American Global LLC		NAMED INSURED DiFazio Industries, LLC 38 Kinsey Place		
POLICY NUMBER		Staten Island, NY 10303 Richmond		
SEE PAGE 1				
CARRIER NAIC CODE				
SEE PAGE 1	SEE P 1	EFFECTIVE DATE: SEE PAGE 1		
ADDITIONAL REMARKS				

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: <u>ACORD 25</u> FORM TITLE: <u>Certificate of Liability Insurance</u>

Description of Operations/Locations/Vehicles: \$1,000,000 Occurrence \$5,000,000 Aggregate

City of New York, including its officials and employees, and National Grid are included as Additional Insured in accordance with the policy provisions of the General Liability and Auto Liability Policies.

CITY OF NEW YORK

CERTIFICATION BY INSURANCE BROKER OR AGENT

The undersigned insurance broker represents to the City of New York that the attached Certificate of Insurance is accurate in all material respects.

> American Global, LLC [Name of broker or agent (typewritten)]

390 N Broadway Jericho, NY 11753 [Address of broker or agent (typewritten)]

heather.black@americanglobal.com [Email address of broker or agent (typewritten)]

516 231 4271 [Phone number/Fax number of broker or agent (typewritten)]

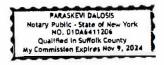
Signature of authorized official, broker, or agent]

Heather Groff, Account Executive [Name and title of authorized official, broker, or agent (typewritten)]

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

Sworn to before me this 11 day of April , 20 22

NOTARY PUBLIC FOR THE STATE OF New York



THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – DESIGNATED 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):

The City of New York, including its officials and employees

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", "personal injury" or "advertising injury" caused, in whole or in part, by your acts or omissions or the acts or omissions of those acting on your behalf:

- A. In the performance of your ongoing operations; or
- **B.** In connection with your premises owned by or rented to you.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

XTEND ENDORSEMENT FOR CONTRACTORS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

GENERAL DESCRIPTION OF COVERAGE – This endorsement broadens coverage. However, coverage for any injury, damage or medical expenses described in any of the provisions of this endorsement may be excluded or limited by another endorsement to this Coverage Part, and these coverage broadening provisions do not apply to the extent that coverage is excluded or limited by such an endorsement. The following listing is a general coverage description only. Read all the provisions of this endorsement and the rest of your policy carefully to determine rights, duties, and what is and is not covered.

- A. Who Is An Insured Unnamed Subsidiaries
- B. Blanket Additional Insured Governmental Entities – Permits Or Authorizations Relating To Operations

PROVISIONS

A. WHO IS AN INSURED – UNNAMED SUBSIDIARIES

The following is added to **SECTION II – WHO IS AN INSURED**:

Any of your subsidiaries, other than a partnership, joint venture or limited liability company, that is not shown as a Named Insured in the Declarations is a Named Insured if:

- a. You are the sole owner of, or maintain an ownership interest of more than 50% in, such subsidiary on the first day of the policy period; and
- **b.** Such subsidiary is not an insured under similar other insurance.

No such subsidiary is an insured for "bodily injury" or "property damage" that occurred, or "personal and advertising injury" caused by an offense committed:

- **a.** Before you maintained an ownership interest of more than 50% in such subsidiary; or
- **b.** After the date, if any, during the policy period that you no longer maintain an ownership interest of more than 50% in such subsidiary.

For purposes of Paragraph **1**. of Section II – Who Is An Insured, each such subsidiary will be deemed to be designated in the Declarations as:

- C. Incidental Medical Malpractice
- D. Blanket Waiver Of Subrogation
- E. Contractual Liability Railroads
- F. Damage To Premises Rented To You
 - **a.** An organization other than a partnership, joint venture or limited liability company; or
 - b. A trust;

as indicated in its name or the documents that govern its structure.

B. BLANKET ADDITIONAL INSURED – GOVERNMENTAL ENTITIES – PERMITS OR AUTHORIZATIONS RELATING TO OPERATIONS

The following is added to **SECTION II – WHO IS AN INSURED**:

Any governmental entity that has issued a permit or authorization with respect to operations performed by you or on your behalf and that you are required by any ordinance, law, building code or written contract or agreement to include as an additional insured on this Coverage Part is an insured, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" arising out of such operations.

The insurance provided to such governmental entity does not apply to:

- Any "bodily injury", "property damage" or "personal and advertising injury" arising out of operations performed for the governmental entity; or
- b. Any "bodily injury" or "property damage" included in the "products-completed operations hazard".

C. INCIDENTAL MEDICAL MALPRACTICE

- 1. The following replaces Paragraph **b**. of the definition of "occurrence" in the **DEFINITIONS** Section:
 - b. An act or omission committed in providing or failing to provide "incidental medical services", first aid or "Good Samaritan services" to a person, unless you are in the business or occupation of providing professional health care services.
- The following replaces the last paragraph of Paragraph 2.a.(1) of SECTION II – WHO IS AN INSURED:

Unless you are in the business or occupation of providing professional health care services, Paragraphs (1)(a), (b), (c) and (d) above do not apply to "bodily injury" arising out of providing or failing to provide:

- (a) "Incidental medical services" by any of your "employees" who is a nurse, nurse assistant, emergency medical technician or paramedic; or
- (b) First aid or "Good Samaritan services" by any of your "employees" or "volunteer workers", other than an employed or volunteer doctor. Any such "employees" or "volunteer workers" providing or failing to provide first aid or "Good Samaritan services" during their work hours for you will be deemed to be acting within the scope of their employment by you or performing duties related to the conduct of your business.
- 3. The following replaces the last sentence of Paragraph 5. of SECTION III LIMITS OF INSURANCE:

For the purposes of determining the applicable Each Occurrence Limit, all related acts or omissions committed in providing or failing to provide "incidental medical services", first aid or "Good Samaritan services" to any one person will be deemed to be one "occurrence".

4. The following exclusion is added to Paragraph 2., Exclusions, of SECTION I – COVERAGES – COVERAGE A – BODILY INJURY AND PROPERTY DAMAGE LIABILITY:

Sale Of Pharmaceuticals

"Bodily injury" or "property damage" arising out of the violation of a penal statute or ordinance relating to the sale of pharmaceuticals committed by, or with the knowledge or consent of, the insured.

5. The following is added to the **DEFINITIONS** Section:

"Incidental medical services" means:

- Medical, surgical, dental, laboratory, x-ray or nursing service or treatment, advice or instruction, or the related furnishing of food or beverages; or
- **b.** The furnishing or dispensing of drugs or medical, dental, or surgical supplies or appliances.
- 6. The following is added to Paragraph 4.b., Excess Insurance, of SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS:

This insurance is excess over any valid and collectible other insurance, whether primary, excess, contingent or on any other basis, that is available to any of your "employees" for "bodily injury" that arises out of providing or failing to provide "incidental medical services" to any person to the extent not subject to Paragraph **2.a.(1)** of Section II – Who Is An Insured.

D. BLANKET WAIVER OF SUBROGATION

The following is added to Paragraph 8., Transfer Of Rights Of Recovery Against Others To Us, of SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS:

If the insured has agreed in a contract or agreement to waive that insured's right of recovery against any person or organization, we waive our right of recovery against such person or organization, but only for payments we make because of:

- a. "Bodily injury" or "property damage" that occurs; or
- **b.** "Personal and advertising injury" caused by an offense that is committed;

subsequent to the execution of the contract or agreement.

E. CONTRACTUAL LIABILITY – RAILROADS

- 1. The following replaces Paragraph **c**. of the definition of "insured contract" in the **DEFINITIONS** Section:
 - **c.** Any easement or license agreement;

2. Paragraph f.(1) of the definition of "insured contract" in the **DEFINITIONS** Section is deleted.

F. DAMAGE TO PREMISES RENTED TO YOU

The following replaces the definition of "premises damage" in the **DEFINITIONS** Section:

"Premises damage" means "property damage" to:

- **a.** Any premises while rented to you or temporarily occupied by you with permission of the owner; or
- **b.** The contents of any premises while such premises is rented to you, if you rent such premises for a period of seven or fewer consecutive days.

CITY OF NEW YORK

CERTIFICATION BY INSURANCE BROKER OR AGENT

The undersigned insurance broker represents to the City of New York that the attached Certificate of Insurance is accurate in all material respects.

> American Global, LLC [Name of broker or agent (typewritten)]

390 N Broadway Jericho, NY 11753 [Address of broker or agent (typewritten)]

heather.black@americanglobal.com [Email address of broker or agent (typewritten)]

516 231 4271 [Phone number/Fax number of broker or agent (typewritten)]

Signature of authorized official, broker, or agent]

Heather Groff, Account Executive [Name and title of authorized official, broker, or agent (typewritten)]

State ofNew York)) ss.: County of ... Nassau

Sworn to before me this 11 day of April , 20 22

NOTARY PUBLIC FOR THE STATE OF New York



CERTIFICATE OF NYS WORKERS' COMPENSATION INSURANCE COVERAGE

 1a. Legal Name & Address of Insured (use street address only) DiFazio Industries, LLC 38 Kinsey Place Staten Island, NY 10303 	 1b. Business Telephone Number of Insured (718) 720-6966 1c. NYS Unemployment Insurance Employer Registration Number of Insured
Work Location of Insured (Only required if coverage is specifically limited to certain locations in New York State, i.e., a Wrap-Up Policy)	1d. Federal Employer Identification Number of Insured or Social Security Number 73-1706369
2. Name and Address of Entity Requesting Proof of Coverage	3a. Name of Insurance Carrier
(Entity Being Listed as the Certificate Holder)	Charter Oak Fire Insurance Company
NYC Department of Design and Construction	3b. Policy Number of Entity Listed in Box "1a"
30-30 Thomson Avenue Long Island City, NY 11101	UB-001T586632-22-25-G
	3c. Policy effective period
	02/21/2022 to 02/21/2023
	3d. The Proprietor, Partners or Executive Officers are
	X included. (Only check box if all partners/officers included)
	all excluded or certain partners/officers excluded.

This certifies that the insurance carrier indicated above in box "3" insures the business referenced above in box "1a" for workers' compensation under the New York State Workers' Compensation Law. (To use this form, New York (NY) must be listed under <u>item 3A</u> on the INFORMATION PAGE of the workers' compensation insurance policy). The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed above as the certificate holder in box "2".

The insurance carrier must notify the above certificate holder and the Workers' Compensation Board within 10 days IF a policy is canceled due to nonpayment of premiums or within 30 days IF there are reasons other than nonpayment of premiums that cancel the policy or eliminate the insured from the coverage indicated on this Certificate. (These notices may be sent by regular mail.) Otherwise, this Certificate is valid for one year after this form is approved by the insurance carrier or its licensed agent, or until the policy expiration date listed in box "3c", whichever is earlier.

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy listed, nor does it confer any rights or responsibilities beyond those contained in the referenced policy.

This certificate may be used as evidence of a Workers' Compensation contract of insurance only while the underlying policy is in effect.

Please Note: Upon cancellation of the workers' compensation policy indicated on this form, if the business continues to be named on a permit, license or contract issued by a certificate holder, the business must provide that certificate holder with a new Certificate of Workers' Compensation Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Workers' Compensation Law.

Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has the coverage as depicted on this form.

Approved by: _	Heather Groff (Print name of authorized representative or licensed agent of insurance carrier)		
Approved by:	Distles Glioff	04/11/2022	
-	(Signature)	(Date)	
Title:	Account Executive		

Telephone Number of authorized representative or licensed agent of insurance carrier: (516) 231-4271

Please Note: Only insurance carriers and their licensed agents are authorized to issue Form C-105.2. Insurance brokers are <u>NOT</u> authorized to issue it.

C-105.2 (9-17)

Workers'

Board

Compensation

/ORK

Workers' Compensation Law

Section 57. Restriction on issue of permits and the entering into contracts unless compensation is secured.

- 1. The head of a state or municipal department, board, commission or office authorized or required by law to issue any permit for or in connection with any work involving the employment of employees in a hazardous employment defined by this chapter, and notwithstanding any general or special statute requiring or authorizing the issue of such permits, shall not issue such permit unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that compensation for all employees has been secured as provided by this chapter. Nothing herein, however, shall be construed as creating any liability on the part of such state or municipal department, board, commission or office to pay any compensation to any such employee if so employed.
- 2. The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in a hazardous employment defined by this chapter, notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that compensation for all employees has been secured as provided by this chapter.



CERTIFICATE OF INSURANCE COVERAGE DISABILITY AND PAID FAMILY LEAVE BENEFITS LAW

PART 1. To be comp	leted by Disability and Pa	aid Family Leave	Benefits Carrier or Licensed I	nsurance Agent of that Carrier
1a. Legal Name & Addro DIFAZIO INDUSTR 38 KINSEY PLACE STATEN ISLAND, N		ess only)	1b. Business Telephone Number 718-720-6966	of Insured
	d (Only required if coverage is spec rk State, i.e., Wrap-Up Policy)	cifically limited to	1c. Federal Employer Identificatio or Social Security Number	n Number of Insured
			73-1706369	
(Entity Being Listed a NYC Departmer	f Entity Requesting Proof of Co s the Certificate Holder) nt of Design and Con	-		surance Company of New York
30-30 Thomson Long Island City			3b. Policy Number of Entity Listed R18666-001	l in Box "1a"
			3c. Policy effective period 11/9/2017	to 4/12/2023
C. Paid family leave benefits only. 5. Policy covers: ★ A. All of the employer's employees eligible under the NYS Disability and Paid Family Leave Benefits Law. B. Only the following class or classes of employer's employees: Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has NYS Disability and/or Paid Family Leave Benefits insurance coverage as described above. Date Signed <u>4/11/2022</u> By (Signature of insurance carrier's authorized representative or NYS Licensed Insurance Agent of that insurance carrier) Telephone Number (212) 355-4141 Name and Title <u>SUPERVISOR-DBL/POLICY SERVICES</u> IMPORTANT: If Boxes 4A and 5A are checked, and this form is signed by the insurance carrier's authorized representative or NYS Licensed Insurance Agent of that carrier, this certificate is COMPLETE. Mail it directly to the certificate holder. If Box 4B, 4C or 5B is checked, this certificate is NOT COMPLETE for purposes of Section 220, Subd. 8 of the NYS Disability and Paid Family Leave Benefits Law. It must be mailed for completion to the Workers' Compensation Board, Plans Acceptance Unit, PO Box 5200, Binghamton, NY 13902-5200.				
PART 2. To be completed by the NYS Workers' Compensation Board (Only if Box 4C or 5B of Part 1 has been checked)				
State of New York Workers' Compensation Board According to information maintained by the NYS Workers' Compensation Board, the above-named employer has complied with the NYS Disability and Paid Family Leave Benefits Law with respect to all of his/her employees.				
Date Signed	Ву	(9	ignature of Authorized NYS Workers' Comp	ensation Board Employee)
Tolonhono Number				
			noid family logue honofite ingura	nce policies and NYS licensed insurance

Please Note: Only insurance carriers licensed to write NYS disability and paid family leave benefits insurance policies and NYS licensed insurance agents of those insurance carriers are authorized to issue Form DB-120.1. **Insurance brokers are NOT authorized to issue this form.**



Additional Instructions for Form DB-120.1

By signing this form, the insurance carrier identified in Box 3 on this form is certifying that it is insuring the business referenced in box "1a" for disability and/or paid family leave benefits under the New York State Disability and Paid Family Leave Benefits Law. The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed as the certificate holder in Box 2.

The insurance carrier must notify the above certificate holder and the Workers' Compensation Board within 10 days IF a policy is cancelled due to nonpayment of premiums or within 30 days IF there are reasons other than nonpayment of premiums that cancel the policy or eliminate the insured from coverage indicated on this Certificate. (These notices my be sent by regular mail.) Otherwise, this Certificate is valid for one year after this form is approved by the insurance carrier or its licensed agent, or until the policy expiration date listed in Box 3c, whichever is earlier

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy listed, nor does it confer any rights or responsibilities beyond those contained in the referenced policy.

This certificate may be used as evidence of a Disability and/or Paid Family Leave Benefits contract of insurance only while the underlying policy is in effect.

Please Note: Upon the cancellation of the disability and/or paid family leave benefits policy indicated on this form, if the business continues to be named on a permit, license or contract issued by a certificate holder, the business must provide that certificate holder with a new Certificate of NYS Disability and/or Paid Family Leave Benefits Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Disability and Paid Family Leave Benefits Law.

DISABILITY AND PAID FAMILY LEAVE BENEFITS LAW

§220. Subd. 8

(a) The head of a state or municipal department, board, commission or office authorized or required by law to issue any permit for or in connection with any work involving the employment of employees in employment as defined in this article, and not withstanding any general or special statute requiring or authorizing the issue of such permits, shall not issue such permit unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits and after January first, two thousand and twenty-one, the payment of family leave benefits for all employees has been secured as provided by this article. Nothing herein, however, shall be construed as creating any liability on the part of such state or municipal department, board, commission or office to pay any disability benefits to any such employee if so employed.

(b) The head of a state or municipal department, board, commission or office authorized or required by law to enter into any contract for or in connection with any work involving the employment of employees in employment as defined in this article and notwithstanding any general or special statute requiring or authorizing any such contract, shall not enter into any such contract unless proof duly subscribed by an insurance carrier is produced in a form satisfactory to the chair, that the payment of disability benefits and after January first, two thousand eighteen, the payment of family leave benefits for all employees has been secured as provided by this article.

(NO TEXT ON THIS PAGE)

LABOR LAW ARTICLE 8 - NYC PUBLIC WORKS

Workers, Laborers and Mechanics employed on a public work project must receive not less than the prevailing rate of wage and benefits for the classification of work performed by each upon such public work. Pursuant to New York Labor Law Article 8 the Comptroller of the City of New York has promulgated this schedule solely for Workers, Laborers and Mechanics engaged by private contractors on New York City public work projects. Prevailing rates are required to be annexed to and form part of the public work contract pursuant to Labor Law section 220 (3).

This schedule is a compilation of separate determinations of the prevailing rate of wage and supplements made by the Comptroller for each trade classification listed herein pursuant to Labor Law section 220 (5). The source of the wage and supplement rates, whether a collective bargaining agreement, survey data or other, is listed at the end of each classification.

Agency Chief Contracting Officers should contact the Bureau of Labor Law's Classification Unit with any questions concerning trade classifications, prevailing rates or prevailing practices with respect to procurement on New York City public work contracts. Contractors are advised to review the Comptroller's Prevailing Wage Schedule before bidding on public work contracts. Contractors with questions concerning trade classifications, prevailing rates or prevailing practices with respect to public work contracts in the procurement stage must contact the contracting agency responsible for the procurement.

Any error as to compensation under the prevailing wage law or other information as to trade classification, made by the contracting agency in the contract documents or in any other communication, will not preclude a finding against the contractor of prevailing wage violation.

Any questions concerning trade classifications, prevailing rates or prevailing practices on New York City public work contracts that have already been awarded may be directed to the Bureau of Labor Law's Classification Unit by calling (212) 669-4443. All callers must have the agency name and contract registration number available when calling with questions on public work contracts. Please direct all other compliance issues to: Bureau of Labor Law, Attn: Wasyl Kinach, P.E., Office of the Comptroller, 1 Centre Street, Room 651, New York, N.Y. 10007; Fax (212) 669-4002.

Pursuant to Labor Law § 220 (3-a) (a), the appropriate schedule of prevailing wages and benefits must be posted in a prominent and accessible place at all public work sites along with the Construction Poster provided on our web site at <u>comptroller.nyc.gov/wages</u>. In addition, covered employees must be given the appropriate schedule of prevailing wages and benefits along with the Worker Notice provided on our web site at the time the public work project begins, and with the first paycheck to each such employee after July first of each year.

This schedule is applicable to work performed during the effective period, unless otherwise noted. Changes to this schedule are published on our web site <u>comptroller.nyc.gov/wages</u>. Contractors must pay the wages and supplements in effect when the worker, laborer, mechanic performs the work. Preliminary schedules for future one-year periods appear in the City Record on or about June 1 each succeeding year. Final schedules appear on or about July 1 in the City Record and on our web site <u>comptroller.nyc.gov/wages</u>.

Prevailing rates and ratios for apprentices are published in the Construction Apprentice Prevailing Wage Schedule. Pursuant to Labor Law § 220 (3-e), only apprentices who are individually registered in a bona fide program to which the employer contractor is a participant, registered with the

New York State Department of Labor, may be paid at the apprentice rates. Apprentices who are not so registered must be paid as journey persons.

New York City public work projects awarded pursuant to a Project Labor Agreement ("PLA") in accordance with Labor Law section 222 may have different labor standards for shift, premium and overtime work. Please refer to the PLA's pre-negotiated labor agreements for wage and benefit rates applicable to work performed outside of the regular workday. More information is available at the Mayor's Office of Contract Services (MOCS) web page at:

https://www1.nyc.gov/site/mocs/legal-forms/project-labor-agreements.page

All the provisions of Labor Law Article 8 remain applicable to PLA work including, but not limited to, the enforcement of prevailing wage requirements by the Comptroller in accordance with the trade classifications in this schedule; however, we will enforce shift, premium, overtime and other non-standard rates as they appear in a project's pre-negotiated labor agreement.

In order to meet their obligation to provide prevailing supplemental benefits to each covered employee, employers must either:

- 1) Provide bona fide fringe benefits which cost the employer no less than the prevailing supplemental benefits rate; or
- 2) Supplement the employee's hourly wage by an amount no less than the prevailing supplemental benefits rate; or
- 3) Provide a combination of bona fide fringe benefits and wage supplements which cost the employer no less than the prevailing supplemental benefits rate in total.

Although prevailing wage laws do not require employers to provide bona fide fringe benefits (as opposed to wage supplements) to their employees, other laws may. For example, the Employee Retirement Income Security Act, 29 U.S.C. § 1001 et seq., the Patient Protection and Affordable Care Act, 42 U.S.C. § 18001 et seq., and the New York City Paid Sick Leave Law, N.Y.C. Admin. Code § 20-911 et seq., require certain employers to provide certain benefits to their employees. Labor agreements to which employers are a party may also require certain benefits. The Comptroller's Office does not enforce these laws or agreements.

Employers must provide prevailing supplemental benefits at the straight time rate for each hour worked unless otherwise noted in the classification.

Paid Holidays, Vacation and Sick Leave when listed must be paid or provided in addition to the prevailing hourly supplemental benefit rate.

For more information, please refer to the Comptroller's Prevailing Wage Law Regulations in Title 44 of the Rules of the City of New York, Chapter 2, available at <u>comptroller.nyc.gov/wages</u>.

Wasyl Kinach, P.E. Director of Classifications Bureau of Labor Law

TABLE OF CONTENTS

CLASSIFICATION

PAGE

ASBESTOS HANDLER	5
BLASTER	5
BOILERMAKER	6
BRICKLAYER	7
CARPENTER - BUILDING COMMERCIAL	8
CARPENTER - HEAVY CONSTRUCTION WORK	9
CARPENTER - HIGH RISE CONCRETE FORMS	10
CARPENTER - SIDEWALK SHED, SCAFFOLD AND HOIST	11
CARPENTER - WOOD WATER STORAGE TANK	12
CEMENT & CONCRETE WORKER	13
CEMENT MASON	14
CORE DRILLER	14
DERRICKPERSON AND RIGGER	16
DIVER	17
DOCKBUILDER - PILE DRIVER	
DRIVER: TRUCK (TEAMSTER)	19
ELECTRICIAN - ALARM TECHNICIAN	24
ELEVATOR CONSTRUCTOR	26
ELEVATOR REPAIR & MAINTENANCE	27
ENGINEER	
ENGINEER - CITY SURVEYOR AND CONSULTANT	
ENGINEER - FIELD (BUILDING CONSTRUCTION)	34
ENGINEER - FIELD (HEAVY CONSTRUCTION)	35
ENGINEER - FIELD (STEEL ERECTION)	
ENGINEER - OPERATING	
FLOOR COVERER	45
GLAZIER	45
GLAZIER - REPAIR & MAINTENANCE	46
HAZARDOUS MATERIAL HANDLER	47
HEAT AND FROST INSULATOR	
HOUSE WRECKER	49
IRON WORKER - ORNAMENTAL	50
IRON WORKER - STRUCTURAL	51
LABORER	52
LANDSCAPING	52

MARBLE MECHANIC	54
MASON TENDER	55
MASON TENDER (INTERIOR DEMOLITION WORKER)	56
METALLIC LATHER	57
MILLWRIGHT	58
MOSAIC MECHANIC	59
PAINTER	60
PAINTER - LINE STRIPING (ROADWAY)	60
PAINTER - METAL POLISHER	62
PAINTER - SIGN	63
PAINTER - STRUCTURAL STEEL	64
PAPERHANGER	65
PAVER AND ROADBUILDER	66
PLASTERER	68
PLASTERER - TENDER	69
PLUMBER	69
PLUMBER (MECHNICAL EQUIPMENT AND SERVICE)	70
PLUMBER (RESIDENTIAL RATES FOR 1, 2 AND 3 FAMILY HOME CONSTRUCTION)	71
PLUMBER: PUMP & TANK	72
POINTER, WATERPROOFER, CAULKER, SANDBLASTER, STEAMBLASTER	73
ROOFER	73
SHEET METAL WORKER	74
SHEET METAL WORKER - SPECIALTY	75
SHIPYARD WORKER	76
SIGN ERECTOR	78
STEAMFITTER	78
STEAMFITTER - REFRIGERATION AND AIR CONDITIONER	79
STONE MASON - SETTER	80
TAPER	
TELECOMMUNICATION WORKER	82
TILE FINISHER	83
TILE LAYER - SETTER	
TIMBERPERSON	85
TUNNEL WORKER	85
UTILITY LOCATOR	87
WELDER	

ASBESTOS HANDLER SEE HAZARDOUS MATERIAL HANDLER

BLASTER

<u>Blaster</u>

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$56.71 Supplemental Benefit Rate per Hour: \$48.63

Blaster - Hydraulic Trac Drill

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$50.85** Supplemental Benefit Rate per Hour: **\$48.63**

Blaster - Wagon: Air Trac: Quarry Bar: Drillrunners

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$50.02** Supplemental Benefit Rate per Hour: **\$48.63**

Blaster - Journeyperson

(Laborer, Chipper/Jackhammer including Walk Behind Self Propelled Hydraulic Asphalt and Concrete Breakers and Hydro (Water) Demolition, Powder Carrier, Hydraulic Chuck Tender, Chuck Tender and Nipper)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$43.50 Supplemental Benefit Rate per Hour: \$48.63

Blaster - Magazine Keepers: (Watch Person)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$21.75** Supplemental Benefit Rate per Hour: **\$48.63**

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day Memorial Day Independence Day Labor Day Columbus Day Thanksgiving Day Christmas Day

Paid Holidays

Labor Day Thanksgiving Day

Shift Rates

When two shifts are employed, single time rate shall be paid for each shift. When three shifts are found necessary, each shift shall work seven and one half hours (7 $\frac{1}{2}$), but shall be paid for eight (8) hours of labor, and be permitted one half hour for lunch.

(Local #731)

BOILERMAKER

Boilermaker

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$63.38 Supplemental Benefit Rate per Hour: \$46.67 Supplemental Note: For time and one half overtime - \$69.56 For double overtime - \$92.44

Overtime Description

For Repair and Maintenance work: Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. For New Construction work: Double time the regular rate after an 8 hour day. Double time the regular time rate for Saturday. Double time the regular rate for Saturday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day

Columbus Day Election Day Veteran's Day Thanksgiving Day Christmas Day

Quadruple time the regular rate for work on the following holiday(s). Labor Day

Paid Holidays

Good Friday Day after Thanksgiving Day before Christmas Day before New Year's Day

Shift Rates

On jobs requiring two (2) or three (3) shifts, the first shift shall work eight (8) hours at the regular straight-time hourly rate. The second shift shall work eight (8) hours and receive eight hours at the regular straight time hourly rate plus two dollars (\$2.00) per hour. The third shift shall work eight (8) hours and receive eight hours at the regular straight time hourly rate plus two dollars and twenty-five cents (\$2.25) per hour.

(Local #5)

BRICKLAYER

Bricklayer

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$57.64 Supplemental Benefit Rate per Hour: \$35.95

Overtime Description

Time and one half the regular rate after a 7 hour day. If working on a job that is predominately Pointer, Cleaner, Caulker work, then Time and one half the regular rate after an 8 hour day.

Overtime

Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

The second shift wage rate shall be a 15% wage premium with no premium for supplemental benefits. There must be a first shift in order to work a second shift. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, eight hours will be paid at straight time rate for seven hours of work.

(Bricklayer District Council)

CARPENTER - BUILDING COMMERCIAL

Building Commercial

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$54.75 Supplemental Benefit Rate per Hour: \$47.13

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Presidential Election Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

Shift Rates

The second shift will receive one hour at the double time rate of pay for the last hour of the shift; eight hours pay for seven hours of work, nine hours pay for eight hours of work. There must be a first shift in order to work a second shift. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, the rule for the second shift will apply.

(Carpenters District Council)

CARPENTER - HEAVY CONSTRUCTION WORK

(Construction of Engineered Structures and Building Foundations including all form work)

Heavy Construction Work

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$56.93 Supplemental Benefit Rate per Hour: \$53.49

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Presidential Election Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate. When two (2) or more shifts of Carpenters are employed, single time will be paid for each shift.

(Carpenters District Council)

CARPENTER - HIGH RISE CONCRETE FORMS (Excludes Engineered Structures and Building Foundations)

Carpenter High Rise A

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$50.78** Supplemental Benefit Rate per Hour: **\$44.44**

Carpenter High Rise B

Carpenter High Rise B worker is excluded from high risk operations such as erection decking, perimeter debris netting, leading edge work, self-climbing form systems, and the installation of cocoon systems unless directly supervised by a Carpenter High Rise A worker.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$40.19 Supplemental Benefit Rate per Hour: \$17.75

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Presidential Election Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

The second shift wage rate shall be 113% of the straight time hourly wage rate. However, any shift beginning after 5:00 P.M. shall be paid at time and one half the regular hourly rate. There must be a first shift in order to work a second shift. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, the rule for the second shift will apply.

(Carpenters District Council)

CARPENTER - SIDEWALK SHED, SCAFFOLD AND HOIST

Carpenter - Hod Hoist

(Assisted by Mason Tender)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$52.00** Supplemental Benefit Rate per Hour: **\$47.40**

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Presidential Election Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

Shift Rates

The second shift will receive 112% of the straight time hourly rate. Benefit fund contributions shall be paid at the straight time rate. There must be a first shift in order to work a second shift. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, the rule for the second shift will apply.

CARPENTER - WOOD WATER STORAGE TANK

Tank Mechanic

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$35.69** Supplemental Benefit Rate per Hour: **\$22.24**

Tank Helper

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$28.23 Supplemental Benefit Rate per Hour: \$22.24

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Time and one half the regular rate for work on a holiday plus the day's pay.

Paid Holidays

New Year's Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Thanksgiving Day Day after Thanksgiving 1/2 day on Christmas Eve if work is performed in the A.M. Christmas Day 1/2 day on New Year's Eve if work is performed in the A.M.

Vacation

Employed for one (1) year.....one (1) week vacation (40 hours) Employed for three (3) years.....two (2) weeks vacation (80 hours) Employed for more than twenty (20) years.....three (3) weeks vacation (120 hours)

SICK LEAVE: Two (2) sick days after being employed for twenty (20) years.

(Carpenters District Council)

CEMENT & CONCRETE WORKER

Cement & Concrete Worker

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$45.28** Supplemental Benefit Rate per Hour: **\$30.20** Supplemental Note: \$34.20 on Saturdays; \$38.20 on Sundays & Holidays

Cement & Concrete Worker - (Hired after 2/6/2016)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$34.80** Supplemental Benefit Rate per Hour: **\$22.20** Supplemental Note: \$24.20 on Saturdays; \$26.20 on Sundays & Holidays

Overtime Description

Time and one half the regular rate after 7 hour day (time and one half the regular rate after an 8 hour day when working with Dockbuilders on pile cap forms and for work below street level to the top of the foundation wall, not to exceed 2 feet or 3 feet above the sidewalk-brick shelf, when working on the foundation and structure.)

Overtime

Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Presidential Election Day Thanksgiving Day Christmas Day

Paid Holidays

1/2 day before Christmas Day 1/2 day before New Year's Day

Shift Rates

On shift work extending over a twenty-four hour period, all shifts are paid at straight time.

(Cement & Concrete Workers District Council 16)

CEMENT MASON

Cement Mason

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$45.77 Supplemental Benefit Rate per Hour: \$41.01 Supplemental Note: Supplemental benefit time and one half rate: \$71.97; Double time rate: double the base supplemental benefit rate.

Overtime Description

Time and one-half the regular rate after an 8 hour day, double time the regular rate after 10 hours. Time and onehalf the regular rate on Saturday, double time the regular rate after 10 hours. Double time the regular rate on Sunday. Four Days a week at Ten (10) hours straight time is allowed.

Overtime Holidays

Double time the regular rate for work on the following holiday(s).

New Year's Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Presidential Election Day Thanksgiving Day Christmas Day

Paid Holidays

Any worker who reports to work on Christmas Eve or New Year's Eve pursuant to his employer's instruction shall be entitled to three (3) hours afternoon pay without working.

Shift Rates

For off shift work, (at times other than the regular 7:00 A.M. to 3:30 P.M. work day) a cement mason shall be paid at the regular hourly rate plus a 25% per hour differential.

(Local #780) (BCA)

CORE DRILLER

Core Driller

Effective Period: 7/1/2021 - 10/17/2021

Wage Rate per Hour: \$41.74 Supplemental Benefit Rate per Hour: \$29.40

Effective Period: 10/18/2021 - 6/30/2022 Wage Rate per Hour: **\$42.27** Supplemental Benefit Rate per Hour: **\$30.60**

Core Driller Helper

Effective Period: 7/1/2021 - 10/17/2021 Wage Rate per Hour: \$32.92 Supplemental Benefit Rate per Hour: \$29.40

Effective Period: 10/18/2021 - 6/30/2022 Wage Rate per Hour: \$33.47 Supplemental Benefit Rate per Hour: \$30.60

Core Driller Helper(Third year in the industry)

Effective Period: 7/1/2021 - 10/17/2021 Wage Rate per Hour: **\$29.63** Supplemental Benefit Rate per Hour: **\$29.40**

Effective Period: 10/18/2021 - 6/30/2022 Wage Rate per Hour: \$30.12 Supplemental Benefit Rate per Hour: \$30.60

Core Driller Helper (Second year in the industry)

Effective Period: 7/1/2021 - 10/17/2021 Wage Rate per Hour: **\$26.34** Supplemental Benefit Rate per Hour: **\$29.40**

Effective Period: 10/18/2021 - 6/30/2022 Wage Rate per Hour: **\$26.78** Supplemental Benefit Rate per Hour: **\$30.60**

Core Driller Helper (First year in the industry)

Effective Period: 7/1/2021 - 10/17/2021 Wage Rate per Hour: **\$23.04** Supplemental Benefit Rate per Hour: **\$29.40**

Effective Period: 10/18/2021 - 6/30/2022 Wage Rate per Hour: **\$23.43** Supplemental Benefit Rate per Hour: **\$30.60**

Overtime Description

Time and one half the regular rate for work on a holiday plus Holiday pay when worked.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Shift Rates

When two (2) or more shifts are employed, single time shall be paid for each shift, but those employees employed on a shift other than from 8:00 A.M. to 5:00 P.M. shall, in addition, receive two dollars (\$2.00) per hour differential for each hour worked. When three (3) shifts are needed, each shift shall work seven and one-half (7 $\frac{1}{2}$) hours paid for eight (8) hours of labor and be permitted one-half ($\frac{1}{2}$) hour for mealtime.

(Carpenters District Council)

DERRICKPERSON AND RIGGER

Derrick Person & Rigger

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$53.99 Supplemental Benefit Rate per Hour: \$55.10 Supplemental Note: The above supplemental rate applies for work performed in Manhattan, Bronx, Brooklyn and Queens. \$56.52 - For work performed in Staten Island.

Derrick Person & Rigger - Site Work

Assists the Stone Mason-Setter in the setting of stone and paving stone.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$44.86 Supplemental Benefit Rate per Hour: \$43.37

Overtime Description

The first two hours of overtime on weekdays and the first seven hours of work on Saturdays are paid at time and one half for wages and supplemental benefits. All additional overtimes is paid at double time for wages and supplemental benefits. Deduct \$1.42 from the Staten Island hourly benefits rate before computing overtime.

Overtime

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day Washington's Birthday Good Friday Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

(Local #197)

DIVER

Diver (Marine)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$71.80** Supplemental Benefit Rate per Hour: **\$53.49**

Diver Tender (Marine)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$51.34 Supplemental Benefit Rate per Hour: \$53.49

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day

Labor Day Columbus Day Presidential Election Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

When three shifts are utilized each shift shall work seven and one half-hours (7 1/2 hours) and paid for 8 hours, allowing for one half hour for lunch.

(Carpenters District Council)

DOCKBUILDER - PILE DRIVER

Dockbuilder - Pile Driver

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$56.93 Supplemental Benefit Rate per Hour: \$53.49

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Presidential Election Day Thanksgiving Day Christmas Day

Paid Holidays

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate.

(Carpenters District Council)

DRIVER: TRUCK (TEAMSTER)

Driver - Dump Truck

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$43.83 Supplemental Benefit Rate per Hour: \$51.55 Supplemental Note: Over 40 hours worked: at time and one half rate - \$22.50; at double time rate - \$30.00

Driver - Tractor Trailer

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$46.12 Supplemental Benefit Rate per Hour: \$51.50 Supplemental Note: Over 40 hours worked: at time and one half rate - \$22.50; at double time rate - \$30.00

Driver - Euclid & Turnapull Operator

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$46.68** Supplemental Benefit Rate per Hour: **\$51.50** Supplemental Note: Over 40 hours worked: at time and one half rate - \$22.50; at double time rate - \$30.00

Overtime Description

For Paid Holidays: Holiday pay for all holidays shall be prorated based two hours per day for each day worked in the holiday week, not to exceed 8 hours of holiday pay. For Thanksgiving week, the prorated share shall be 5 1/3 hours of holiday pay for each day worked in Thanksgiving week.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Shift Rates

Off shift work commencing between 6:00 P.M. and 4:30 A.M. shall work eight and one half (8 1/2) hours allowing for one half hour for lunch and receive 9 hours pay for 8 hours of work.

Driver Redi-Mix (Sand & Gravel)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$40.89 Supplemental Benefit Rate per Hour: \$47.01 Supplemental Note: Over 40 hours worked: time and one half rate \$18.01; double time rate \$24.01

Overtime Description

For Paid Holidays: Employees who do not work on a contractual holiday shall be compensated two (2) hours extra pay in straight time wages and benefits for every day on which the Employee does not pass up a day's work during the calendar week (Sunday through Saturday) of the holiday, up to a maximum of ten (10) hours in wages and eight (8) hours in benefit contributions for the holiday

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). President's Day Columbus Day Veteran's Day

Triple time the regular rate for work on the following holiday(s). New Year's Day Memorial Day Independence Day

Labor Day Thanksgiving Day Christmas Day

Paid Holidays

New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Election Day Thanksgiving Day Christmas Day

(Local #282)

ELECTRICIAN

(Including installation of low voltage cabling carrying data, video and/or voice on building construction/alteration/renovation projects.)

Electrician "A" (Regular Day / Day Shift)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$58.00 Supplemental Benefit Rate per Hour: \$54.86 * Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician "A" (Regular Day Overtime after 7 hrs / Day Shift Overtime after 8 hrs)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$87.00** Supplemental Benefit Rate per Hour: **\$56.73** * Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician "A" (Swing Shift)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$68.05** Supplemental Benefit Rate per Hour: **\$62.39** * Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician "A" (Swing Shift Overtime after 7.5 hours)

Effective Period: 7/1/2021 - 6/30/2022

Wage Rate per Hour: \$102.08 Supplemental Benefit Rate per Hour: \$64.58 * Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician "A" (Graveyard Shift)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$76.23** Supplemental Benefit Rate per Hour: **\$68.74** * Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician "A" (Graveyard Shift Overtime after 7 hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$114.35 Supplemental Benefit Rate per Hour: \$71.19 * Supplemental Note: See Supplemental Benefit Rate per Hour Note below

* Supplemental Benefit Rate per Hour Note

In addition to the Supplemental Benefit Rates per Hour listed above, the employer must provide an additional 6.2% of taxable gross pay earned on covered work only. This additional Supplemental Benefit Rate will terminate when the employee has contributed the maximum annual Social Security tax required by law, on all work performed.

Overtime

Time and one half the regular rate after a 7 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on a holiday. New Year's Day Martin Luther King Jr. Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

Shift Rates

For multiple shifts of temporary light and/or power, the temporary light and/or power employee shall be paid for 8 hours at the straight time rate. For three or less workers performing 8 hours temporary light and/or power the supplemental benefit rate is \$21.86 - See * Supplemental Benefit Rate per Hour Note above.

Electrician "M" (First 8 hours)

"M" rated work shall be defined as jobbing: electrical work of limited duration and scope, also consisting of repairs and/or replacement of electrical and tele-data equipment. Includes all work necessary to retrofit, service, maintain and repair all kinds of lighting fixtures and local lighting controls and washing and cleaning of foregoing fixtures.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$30.50** Supplemental Benefit Rate per Hour: **\$24.45** First and Second Year "M" Wage Rate Per Hour: **\$26.00** First and Second Year "M" Supplemental Rate: **\$22.06**

Electrician "M" (Overtime After First 8 hours)

"M" rated work shall be defined as jobbing: electrical work of limited duration and scope, also consisting of repairs and/or replacement of electrical and tele-data equipment. Includes all work necessary to retrofit, service, maintain and repair all kinds of lighting fixtures and local lighting controls and washing and cleaning of foregoing fixtures.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$45.75 Supplemental Benefit Rate per Hour: \$26.38 First and Second Year "M" Wage Rate Per Hour: \$39.00 First and Second Year "M" Supplemental Rate: \$23.70

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day Martin Luther King Jr. Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

(Local #3)

ELECTRICIAN - ALARM TECHNICIAN

(Scope of Work - Inspect, test, repair, and replace defective, malfunctioning, or broken devices, components and controls of Fire, Burglar and Security Systems)

<u>Alarm Technician</u>

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$33.90 Supplemental Benefit Rate per Hour: \$18.43 Supplemental Note: \$16.80 only after 8 hours worked in a day

Overtime Description

Time and one half the regular rate for work on the following holidays: Columbus Day, Veterans Day, Day after Thanksgiving.

Double time the regular rate for work on the following holidays: New Year's day, Martin Luther King Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Paid Holidays

New Year's Day Martin Luther King Jr. Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Shift Rates

Night Differential is based upon a ten percent (10%) differential between the hours of 4:00 P.M. and 12:30 A.M. and a fifteen percent (15%) differential for the hours 12:00 A.M. to 8:30 A.M.

Vacation

At least 1 year of employment	ten (10) days
5 years or more of employment	fifteen (15) days
10 years of employment	twenty (20) days
Plus one Personal Day per year	

Sick Days:

One day per Year. Up to 4 vacation days may be used as sick days.

(Local #3)

ELECTRICIAN-STREET LIGHTING WORKER

Electrician - Electro Pole Electrician

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$58.00 Supplemental Benefit Rate per Hour: \$56.83 * Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician - Electro Pole Foundation Installer

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$43.16 Supplemental Benefit Rate per Hour: \$42.15 * Supplemental Note: See Supplemental Benefit Rate per Hour Note below

Electrician - Electro Pole Maintainer

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$37.11** Supplemental Benefit Rate per Hour: **\$38.04** * Supplemental Note: See Supplemental Benefit Rate per Hour Note below

* Supplemental Benefit Rate per Hour Note

In addition to the Supplemental Benefit Rates per Hour listed above, the employer must provide an additional 6.2% of taxable gross pay earned on covered work only. This additional Supplemental Benefit Rate will terminate when the employee has contributed the maximum annual Social Security tax required by law, on all work performed.

Overtime Description

Electrician - Electro Pole Electrician: Time and one half the regular rate after a 7 hour day and after 5 consecutive days worked per week.

Electrician - Electro Pole Foundation Installer: Time and one half the regular rate after 8 hours within a 24 hour period and Saturday and Sunday.

Electrician - Electro Pole Maintainer: Time and one half the regular rate after a 7 hour day and after 5 consecutive days worked per week. Saturdays and Sundays may be used as a make-up day at straight time when a day is lost during the week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day Martin Luther King Jr. Day

President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

(Local #3)

ELEVATOR CONSTRUCTOR

Elevator Constructor

Effective Period: 7/1/2021 - 3/16/2022 Wage Rate per Hour: \$72.29 Supplemental Benefit Rate per Hour: \$38.29

Effective Period: 3/17/2022 - 6/30/2022 Wage Rate per Hour: \$75.14 Supplemental Benefit Rate per Hour: \$39.10

Overtime Description

For New Construction: work performed after an 8 hour day, Saturday, Sunday or between 4:30pm and 7:00am shall be paid at double time rate.

Existing buildings: work performed after an 8 hour day, Saturday, Sunday or between 5:30pm and 7:00 am shall be paid time and one half.

Overtime

Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day

Day after Thanksgiving Christmas Day

Vacation

Employer contributes 8% of regular basic hourly rate as vacation pay for employees with more than 15 years of service, and 6% for employees with 5 to 15 years of service, and 4% for employees with less than 5 years of service.

(Local #1)

ELEVATOR REPAIR & MAINTENANCE

Elevator Service/Modernization Mechanic

Effective Period: 7/1/2021 - 3/16/2022 Wage Rate per Hour: \$56.77 Supplemental Benefit Rate per Hour: \$38.19

Effective Period: 3/17/2022 - 6/30/2022 Wage Rate per Hour: **\$59.09** Supplemental Benefit Rate per Hour: **\$39.00**

Overtime Description

For Scheduled Service Work: Double time - work scheduled in advance by two or more workers performed on Sundays, Holidays, and between midnight and 7:00am.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday. Time and one half the regular rate for work on a holiday plus the day's pay.

Paid Holidays

New Year's Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Shift Rates

Afternoon shift - regularly hourly rate plus a (15%) fifteen percent differential. Graveyard shift - time and one half the regular rate.

Vacation

Employer contributes 8% of regular basic hourly rate as vacation pay for employees with more than 15 years of service, and 6% for employees with 5 to 15 years of service, and 4% for employees with less than 5 years of service.

(Local #1)

ENGINEER

Engineer - Heavy Construction Operating Engineer I

Cherrypickers 20 tons and over and Loaders (rubber tired and/or tractor type with a manufacturer's minimum rated capacity of six cubic yards and over).

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$74.65 Supplemental Benefit Rate per Hour: \$42.06 Supplemental Note: \$76.72 on overtime Shift Wage Rate: \$119.44

Engineer - Heavy Construction Operating Engineer II

Backhoes, Basin Machines, Groover, Mechanical Sweepers, Bobcat, Boom Truck, Barrier Transport (Barrier Mover) & machines of similar nature. Operation of Churn Drills and machines of a similar nature, Stetco Silent Hoist and machines of similar nature, Vac-Alls, Meyers Machines, John Beam and machines of a similar nature, Ross Carriers and Travel Lifts and machines of a similar nature, Bulldozers, Scrapers and Turn-a-Pulls: Tugger Hoists (Used exclusively for handling excavated material); Tractors with attachments, Hyster and Roustabout Cranes, Cherrypickers. Austin Western, Grove and machines of a similar nature, Scoopmobiles, Monorails, Conveyors, Trenchers: Loaders-Rubber Tired and Tractor: Barber Greene and Eimco Loaders and Eimco Backhoes; Mighty Midget and similar breakers and Tampers, Curb and Gutter Pavers and Motor Patrol, Motor Graders and all machines of a similar nature. Locomotives 10 Tons or under. Mini-Max, Break-Tech and machines of a similar nature; Milling machines, robotic and demolition machines and machines of a similar nature, shot blaster, skid steer machines and machines of a similar nature including bobcat, pile rig rubber-tired excavator (37,000 lbs. and under), 2 man auger.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$72.40** Supplemental Benefit Rate per Hour: **\$42.06** Supplemental Note: \$76.72 on overtime Shift Wage Rate: **\$115.84**

Engineer - Heavy Construction Operating Engineer III

Minor Equipment such as Tractors, Post Hole Diggers, Ditch Witch (Walk Behind), Road Finishing Machines, Rollers five tons and under, Tugger Hoists, Dual Purpose Trucks, Fork Lifts, and Dempsey Dumpers, Fireperson.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$68.62** Supplemental Benefit Rate per Hour: **\$42.06** Supplemental Note: \$76.72 on overtime Shift Wage Rate: **\$109.79**

Engineer - Heavy Construction Maintenance Engineer I

Installing, Repairing, Maintaining, Dismantling and Manning of all equipment including Steel Cutting, Bending and Heat Sealing Machines, Mechanical Heaters, Grout Pumps, Bentonite Pumps & Plants, Screening Machines, Fusion Coupling Machines, Tunnel Boring Machines Moles and Machines of a similar nature, Power Packs, Mechanical Hydraulic Jacks; all drill rigs including but not limited to Churn, Rotary Caisson, Raised Bore & Drills of a similar nature; Personnel, Inspection & Safety Boats or any boats used to perform functions of same, Mine Hoists, Whirlies, all Climbing Cranes, all Tower Cranes, including but not limited to Truck Mounted and Crawler Type and machines of similar nature; Maintaining Hydraulic Drills and machines of a similar nature; Well Point System-Installation and dismantling; Burning, Welding, all Pumps regardless of size and/or motor power, except River Cofferdam Pumps and Wells Point Pumps; Motorized Buggies (three or more); equipment used in the cleaning and televising of sewers, but not limited to jet-rodder/vacuum truck, vacall/vactor, closed circuit television inspection equipment; high powered water pumps, jet pumps; screed machines and concrete finishing machines of a similar nature; vermeers.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$72.05** Supplemental Benefit Rate per Hour: **\$42.06** Supplemental Note: \$76.72 on overtime Shift Wage Rate: **\$115.28**

Engineer - Heavy Construction Maintenance Engineer II

On Base Mounted Tower Cranes

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$95.02** Supplemental Benefit Rate per Hour: **\$42.06** Supplemental Note: \$76.72 on overtime Shift Wage Rate: **\$152.03**

Engineer - Heavy Construction Maintenance Engineer III

On Generators, Light Towers

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$47.10 Supplemental Benefit Rate per Hour: \$42.06 Supplemental Note: \$76.72 on overtime Shift Wage Rate: \$75.36

Engineer - Heavy Construction Maintenance Engineer IV

On Pumps and Mixers including mud sucking

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$48.35 Supplemental Benefit Rate per Hour: \$42.06 Supplemental Note: \$76.72 on overtime Shift Wage Rate: \$77.36

Engineer - Heavy Construction Service Engineer

Gradalls: Concrete Pumps: Power Houses: Driving Truck Cranes: Driving and Operating Fuel and Grease Trucks.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$64.82 Supplemental Benefit Rate per Hour: \$42.06 Supplemental Note: \$76.72 on overtime Shift Wage Rate: \$103.71

Engineer - Heavy Construction Service Mechanic

Shovels: Cranes: Draglines: Backhoes: Keystones: Pavers: Trenching Machines: Gunite Machines: Compressors (three (3) or more in Battery): Crawler Cranes- having a straight lattice boom with no attachment or luffing boom, no jib and no auxiliary attachment.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$44.45 Supplemental Benefit Rate per Hour: \$42.06 Supplemental Note: \$76.72 on overtime Shift Wage Rate: \$71.12

Engineer - Steel Erection Maintenance Engineers

Derrick, Travelers, Tower, Crawler Tower and Climbing Cranes

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$68.93** Supplemental Benefit Rate per Hour: **\$42.06** Supplemental Note: **\$76.72** on overtime Shift Wage Rate: **\$110.29**

Engineer - Steel Erection Oiler I

On a Truck Crane

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$64.43** Supplemental Benefit Rate per Hour: **\$42.06** Supplemental Note: **\$76.72** on overtime Shift Wage Rate: **\$103.09**

Engineer - Steel Erection Oiler II

On a Crawler Crane

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$48.72 Supplemental Benefit Rate per Hour: \$42.06 Supplemental Note: \$76.72 on overtime Shift Wage Rate: \$77.95

Overtime Description

On jobs of more than one shift, if the next shift employee fails to report for work through any cause over which the employer has no control, the employee on duty who works the next shift continues to work at the single time rate.

Overtime

Double time the regular rate after an 8 hour day. Double time the regular time rate for Saturday. Double time the regular rate for Sunday. Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day Lincoln's Birthday President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

Engineer - Building Work Maintenance Engineers I

Installing, repairing, maintaining, dismantling (of all equipment including: Steel Cutting and Bending Machines, Mechanical Heaters, Mine Hoists, Climbing Cranes, Tower Cranes, Linden Peine, Lorain, Liebherr, Mannes, or machines of a similar nature, Well Point Systems, Deep Well Pumps, Concrete Mixers with loading Device, Concrete Plants, Motor Generators when used for temporary power and lights), skid steer machines of a similar nature including bobcat.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$64.11 Supplemental Benefit Rate per Hour: \$41.15 Supplemental Note: \$74.90 on overtime

Engineer - Building Work Maintenance Engineers II

On Pumps, Generators, Mixers and Heaters

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$49.49 Supplemental Benefit Rate per Hour: \$41.15 Supplemental Note: \$74.90 on overtime

Engineer - Building Work Oilers I

All gasoline, electric, diesel or air operated Gradealls: Concrete Pumps, Overhead Cranes in Power Houses: Their duties shall be to assist the Engineer in oiling, greasing and repairing of all machines; Driving Truck Cranes: Driving and Operating Fuel and Grease Trucks, Cherrypickers (hydraulic cranes) over 70,000 GVW, and machines of a similar nature.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$60.89** Supplemental Benefit Rate per Hour: **\$41.15** Supplemental Note: **\$74.90** on overtime

Engineer - Building Work Oilers II

Oilers on Crawler Cranes, Backhoes, Trenching Machines, Gunite Machines, Compressors (three or more in Battery).

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$44.88 Supplemental Benefit Rate per Hour: \$41.15 Supplemental Note: \$74.90 on overtime

Overtime Description

On jobs of more than one shift, if an Employee fails to report for work through any cause over which the Employer has no control, the Employee on duty will continue to work at the rate of single time.

Overtime

Double time the regular rate after an 8 hour day. Double time the regular time rate for Saturday. Double time the regular rate for Sunday. Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day Lincoln's Birthday President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Veteran's Day Thanksgiving Day Christmas Day Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

Shift Rates

When two (2) or more shifts are employed, single time will be paid for each shift.

(Local #15)

ENGINEER - CITY SURVEYOR AND CONSULTANT

Party Chief

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$41.98 Supplemental Benefit Rate per Hour: \$24.40 Supplemental Note: Overtime Benefit Rate - \$29.35 per hour (time & one half) \$34.30 per hour (double time).

Instrument Person

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$34.32** Supplemental Benefit Rate per Hour: **\$24.40** Supplemental Note: Overtime Benefit Rate - \$29.35 per hour (time & one half) \$34.30 per hour (double time).

<u>Rodperson</u>

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$29.49** Supplemental Benefit Rate per Hour: **\$24.40** Supplemental Note: Overtime Benefit Rate - \$29.35 per hour (time & one half) \$34.30 per hour (double time).

Overtime Description

Time and one half the regular rate after an 8 hour day, Time and one half the regular rate for Saturday for the first eight hours worked, Double time the regular time rate for Saturday for work performed in excess of eight hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day Lincoln's Birthday President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - FIELD (BUILDING CONSTRUCTION) (Construction of Building Projects, Concrete Superstructures, etc.)

Field Engineer - BC Party Chief

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$66.42** Supplemental Benefit Rate per Hour: **\$37.16** Supplemental Note: Overtime Benefit Rate - \$52.27 per hour (time & one half) \$67.37 per hour (double time).

Field Engineer - BC Instrument Person

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$51.37 Supplemental Benefit Rate per Hour: \$37.16 Supplemental Note: Overtime Benefit Rate - \$52.27 per hour (time & one half) \$67.37 per hour (double time).

Field Engineer - BC Rodperson

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$32.84 Supplemental Benefit Rate per Hour: \$37.16 Supplemental Note: Overtime Benefit Rate - \$52.27 per hour (time & one half) \$67.37 per hour (double time).

Overtime Description

Time and one half the regular rate after a 7 hour work and time and one half the regular rate for Saturday for the first seven hours worked, Double time the regular time rate for Saturday for work performed in excess of seven hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Veteran's Day Thanksgiving Day Christmas Day Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - FIELD (HEAVY CONSTRUCTION) (Construction of Roads, Tunnels, Bridges, Sewers, Building Foundations, Engineering Structures etc.)

Field Engineer - HC Party Chief

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$77.31** Supplemental Benefit Rate per Hour: **\$39.64** Supplemental Note: Overtime benefit rate - \$55.86 per hour (time & one half), \$72.08 per hour (double time).

Field Engineer - HC Instrument Person

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$56.50 Supplemental Benefit Rate per Hour: \$39.64 Supplemental Note: Overtime benefit rate - \$55.86 per hour (time & one half), \$72.08 per hour (double time).

Field Engineer - HC Rodperson

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$47.23 Supplemental Benefit Rate per Hour: \$39.64 Supplemental Note: Overtime benefit rate - \$55.86 per hour (time & one half), \$72.08 per hour (double time).

Overtime Description

Time and one half the regular rate after an 8 hour day, Time and one half the regular rate for Saturday for the first eight hours worked, Double time the regular time rate for Saturday for work performed in excess of eight hours, Double time the regular rate for Sunday and Double time the regular rate for work on a holiday.

Paid Holidays

New Year's Day Lincoln's Birthday President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Veteran's Day Thanksgiving Day Christmas Day Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - FIELD (STEEL ERECTION)

Field Engineer - Steel Erection Party Chief

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$71.98** Supplemental Benefit Rate per Hour: **\$39.14** Supplemental Note: Overtime benefit rate - \$55.11 per hour (time & one half), \$71.08 per hour (double time).

Field Engineer - Steel Erection Instrument Person

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$55.85 Supplemental Benefit Rate per Hour: \$39.14 Supplemental Note: Overtime benefit rate - \$55.11 per hour (time & one half), \$71.08 per hour (double time).

Field Engineer - Steel Erection Rodperson

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$36.99** Supplemental Benefit Rate per Hour: **\$39.14** Supplemental Note: Overtime benefit rate - \$55.11 per hour (time & one half), \$71.08 per hour (double time).

Overtime Description

Time and one half the regular rate for Saturday for the first eight hours worked. Double time the regular rate for Saturday for work performed in excess of eight hours.

Overtime

Time and one half the regular rate after an 8 hour day. Double time the regular rate for Sunday. Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day Lincoln's Birthday President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Christmas Day

Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Operating Engineer Local #15-D)

ENGINEER - OPERATING

Operating Engineer - Road & Heavy Construction I

Back Filling Machines, Cranes, Mucking Machines and Dual Drum Paver.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$86.05** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$137.68**

Operating Engineer - Road & Heavy Construction II

Backhoes, Power Shovels, Hydraulic Clam Shells, Steel Erection, Moles and machines of a similar nature.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$89.05** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$142.48**

Operating Engineer - Road & Heavy Construction III

Mine Hoists (Cranes, etc. when used as Mine Hoists)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$91.89** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$147.02**

Operating Engineer - Road & Heavy Construction IV

Gradealls, Keystones, Cranes on land or water (with digging buckets), Bridge Cranes, Vermeer Cutter and machines of a similar nature, Trenching Machines.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$89.70** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: \$63.15 overtime hours

Shift Wage Rate: \$143.52

Operating Engineer - Road & Heavy Construction V

Pile Drivers & Rigs (working alongside Dock Builder foreperson): Derrick Boats, Tunnel Shovels.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$87.94** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$140.70**

Operating Engineer - Road & Heavy Construction VI

Mixers (Concrete with loading attachment), Concrete Pavers, Cableways, Land Derricks, Power Houses (Low Air Pressure Units).

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$83.59 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$133.74

Operating Engineer - Road & Heavy Construction VII

Barrier Movers, Barrier Transport and Machines of a Similar Nature.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$67.71** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$108.34**

Operating Engineer - Road & Heavy Construction VIII

Utility Compressors

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$52.77 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$66.26

Operating Engineer - Road & Heavy Construction IX

Horizontal Boring Rig

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$79.56**

Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$127.30

Operating Engineer - Road & Heavy Construction X

Elevators (manually operated as personnel hoist).

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$73.21 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$117.14

Operating Engineer - Road & Heavy Construction XI

Compressors (Portable 3 or more in battery), Driving of Truck Mounted Compressors, Well-point Pumps, Tugger Machines Well Point Pumps, Churn Drill.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$57.06** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$91.30**

Operating Engineer - Road & Heavy Construction XII

All Drills and Machines of a similar nature.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$84.48** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$135.17**

Operating Engineer - Road & Heavy Construction XIII

Concrete Pumps, Concrete Plant, Stone Crushers, Double Drum Hoist, Power Houses (other than above).

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$81.85** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$130.96**

Operating Engineer - Road & Heavy Construction XIV

Concrete Mixer

Effective Period: 7/1/2021 - 6/30/2022

Wage Rate per Hour: \$78.28 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$125.25

Operating Engineer - Road & Heavy Construction XV

Compressors (Portable Single or two in Battery, not over 100 feet apart), Pumps (River Cofferdam) and Welding Machines, Push Button Machines, All Engines Irrespective of Power (Power-Pac) used to drive auxiliary equipment, Air, Hydraulic, etc.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$53.11 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$84.98

Operating Engineer - Road & Heavy Construction XVI

Concrete Breaking Machines, Hoists (Single Drum), Load Masters, Locomotives (over ten tons) and Dinkies over ten tons, Hydraulic Crane-Second Engineer.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$74.81 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$119.70

Operating Engineer - Road & Heavy Construction XVII

On-Site concrete plant engineer, On-site Asphalt Plant Engineer, and Vibratory console.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$75.36 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$120.58

Operating Engineer - Road & Heavy Construction XVIII

Tower Crane

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$107.75 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$172.40

<u> Operating Engineer - Paving I</u>

Asphalt Spreaders, Autogrades (C.M.I.), Roto/Mil

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$83.59 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$133.74

Operating Engineer - Paving II

Asphalt Roller

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$81.47** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$130.35**

Operating Engineer - Paving III

Asphalt Plants

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$69.04** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$110.46**

Operating Engineer - Concrete I

Cranes

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$89.31** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours

Operating Engineer - Concrete II

Compressors

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$53.51 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours

Operating Engineer - Concrete III

Micro-traps (Negative Air Machines), Vac-All Remediation System.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$71.55 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours

Operating Engineer - Steel Erection I

Three Drum Derricks

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$92.36** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$147.78**

Operating Engineer - Steel Erection II

Cranes, 2 Drum Derricks, Hydraulic Cranes, Fork Lifts and Boom Trucks.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$88.77** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours Shift Wage Rate: **\$142.03**

Operating Engineer - Steel Erection III

Compressors, Welding Machines.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$53.07 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$84.91

Operating Engineer - Steel Erection IV

Compressors - Not Combined with Welding Machine. (Public Works Only)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$50.56 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours Shift Wage Rate: \$80.90

Operating Engineer - Building Work I

Forklifts, Plaster (Platform machine), Plaster Bucket, Concrete Pump and all other equipment used for hoisting material.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$70.94** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$**63.15 overtime hours

Operating Engineer - Building Work II

Compressors, Welding Machines (Cutting Concrete-Tank Work), Paint Spraying, Sandblasting, Pumps (with the exclusion of Concrete Pumps), All Engines irrespective of Power (Power-Pac) used to drive Auxiliary Equipment, Air, Hydraulic, Jacking System, etc.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$53.12 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours

Operating Engineer - Building Work III

Double Drum

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$84.16 Supplemental Benefit Rate per Hour: \$34.55 Supplemental Note: \$63.15 overtime hours

Operating Engineer - Building Work IV

Stone Derrick, Cranes, Hydraulic Cranes Boom Trucks.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$89.10** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours

Operating Engineer - Building Work V

Dismantling and Erection of Cranes, Relief Engineer.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$78.81** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: **\$63.15** overtime hours

Operating Engineer - Building Work VI

4 Pole Hoist, Single Drum Hoists.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$77.98 Supplemental Benefit Rate per Hour: \$34.55

Supplemental Note: \$63.15 overtime hours

Operating Engineer - Building Work VII

Rack & Pinion and House Cars

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$62.01** Supplemental Benefit Rate per Hour: **\$34.55** Supplemental Note: \$63.15 overtime hours For New House Car projects Wage Rate per Hour \$49.50 For New House Car projects: Supplemental Benefit overtime hours: **\$48.85**

Overtime Description

On jobs of more than one shift, if an Employee fails to report for work through any cause over which the Employer has no control, the Employee on duty will continue to work at the rate of single time.

For House Cars and Rack & Pinion only: Overtime paid at time and one-half for all hours in excess of eight hours in a day, Saturday, Sunday and Holidays worked.

Overtime

Double time the regular rate after an 8 hour day. Double time the regular time rate for Saturday. Double time the regular rate for Sunday. Double time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day Martin Luther King Jr. Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

Shift Rates

When two (2) or more shifts are employed, single time will be paid for each shift. For Steel Erection Only: Shifts may be worked at the single time rate at other than the regular working hours (8:00 A.M. to 4:30 P.M.) on the following work ONLY: Heavy construction jobs on work below the street level, over railroad tracks and on building jobs.

(Operating Engineer Local #14)

FLOOR COVERER

(Interior vinyl composition tile, sheath vinyl linoleum and wood parquet tile including site preparation and synthetic turf not including site preparation)

Floor Coverer

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$54.75 Supplemental Benefit Rate per Hour: \$47.13

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Presidential Election Day Thanksgiving Day Day after Thanksgiving Day before Christmas Christmas Day Day before New Year's Day

Shift Rates

Two shifts may be utilized with the first shift working 8 a.m. to the end of the shift at straight time rate of pay. The wage rate for the second shift consisting of 7 hours shall be paid at 114.29% of straight time wage rate. The wage rate for the second shift consisting of 8 hours shall be paid 112.5% of the straight time wage rate. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, the rule for the second shift will apply.

(Carpenters District Council)

GLAZIER (New Construction, Remodeling, and Alteration)

Glazier

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$46.55 Supplemental Benefit Rate per Hour: \$47.74 Supplemental Note: Supplemental Benefit Overtime Rate: \$71.62

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

Shift Rates

Shifts shall be any 8 consecutive hours after the normal working day for which the Glazier shall receive 9 hours pay for 8 hours worked.

(Local #1281)

GLAZIER - REPAIR & MAINTENANCE

(For the Installation of Glass - All repair and maintenance work on a particular building.)

Craft Jurisdiction for repair, maintenance and fabrication

Plate glass replacement, Residential glass replacement, Residential mirrors and shower doors, Storm windows and storm doors, Residential replacement windows, Herculite door repairs, Door closer repairs, Retrofit apartment house (non-commercial buildings), Glass tinting.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$26.40** Supplemental Benefit Rate per Hour: **\$24.09**

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Sunday. Time and one half the regular rate for work on the following holiday(s). Time and one half the regular hourly rate after 40 straight time hours in any work week.

Paid Holidays

New Year's Day President's Day Memorial Day Independence Day Labor Day Thanksgiving Day Day after Thanksgiving Christmas Day Employees must work at least one day in the payroll week in which the holiday occurs to receive the paid holiday

(Local #1281)

HAZARDOUS MATERIAL HANDLER

(Removal, abatement, encapsulation or decontamination of asbestos, lead, mold, or other toxic or hazardous waste/materials)

Handler

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$38.05 Supplemental Benefit Rate per Hour: \$17.75

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Sunday. Time and one half the regular hourly rate after 40 straight time hours in any work week.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day Good Friday Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day Easter

Paid Holidays

(Local #78 and Local #12A)

HEAT AND FROST INSULATOR

Heat & Frost Insulator

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$62.21** Supplemental Benefit Rate per Hour: **\$41.91**

Overtime Description

Double time shall be paid for supplemental benefits during overtime work. 8th hour paid at time and one half.

Overtime

Time and one half the regular rate after a 7 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day Martin Luther King Jr. Day President's Day Memorial Day Independence Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Triple time the regular rate for work on the following holiday(s). Labor Day

Paid Holidays

None

Shift Rates

The first shift shall work seven hours at the regular straight time rate. The second and third shift shall work seven hours the regular straight time hourly rate plus a fourteen percent wage and benefit premium. There must be a first shift to work the second shift, and a second shift to work the third shift. Off-hour jobs in occupied

buildings may be worked on weekdays with an increment of one-dollar (\$1.00) per hour and eight (8) hours pay for seven (7) hours worked.

(Local #12) (BCA)

HOUSE WRECKER (TOTAL DEMOLITION)

House Wrecker - Tier A

On all work sites the first, second, eleventh and every third House Wrecker thereafter will be Tier A House Wreckers (i.e. 1st, 2nd, 11th, 14th etc). Other House Wreckers may be Tier B House Wreckers.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$37.63 Supplemental Benefit Rate per Hour: \$30.37

House Wrecker - Tier B

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$26.86** Supplemental Benefit Rate per Hour: **\$22.78**

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

(Mason Tenders District Council)

IRON WORKER - ORNAMENTAL

Iron Worker - Ornamental

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$46.15** Supplemental Benefit Rate per Hour: **\$59.62** Supplemental Note: Supplemental benefits are to be paid at the applicable overtime rate when overtime is in effect.

Overtime Description

Time and one half the regular rate after a 7 hour day for a maximum of two hours on any regular work day (the 8th and 9th hour) and double time shall be paid for all work on a regular work day thereafter, time and one half the regular rate for Saturday for the first seven hours of work and double time shall be paid for all work on a Saturday thereafter.

Overtime

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

When two or three shifts are employed on a job, Monday through Friday, the second and third shift are paid eight and one half (8 ½) hours at the straight time rate for seven (7) hours of work, and ten (10) hours at the straight time rate for eight (8) hours of work. When it is not possible to conduct alteration or repair work during regular working hours in a building occupied by tenants, eight hours will be paid at straight time rate for seven hours of work, and all overtime shall be paid at time and one-half the regular straight time rates but on Sundays and Holidays, time and one-half the regular straight time rate shall be paid for all work up to seven (7) hours and double time shall be paid for all work thereafter.

(Local #580)

IRON WORKER - STRUCTURAL

Iron Worker - Structural

Effective Period: 7/1/2021 - 6/30/2022

Wage Rate per Hour: \$54.20

Supplemental Benefit Rate per Hour: \$82.81

Supplemental Note: Supplemental benefits are to be paid at the applicable overtime rate when overtime is in effect.

Overtime Description

Monday through Friday- the first eight hours are paid at straight time, the 9th and 10th hours are paid at time and one-half the regular rate, all additional weekday overtime is paid at double the regular rate. Saturdays- the first eight hours are paid at time and one-half the regular rate, double time thereafter. Sunday-all shifts are paid at double time. Four Days a week at Ten (10) hours straight time is allowed.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M. 1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

Monday through Friday - First Shift: First eight hours are paid at straight time, the 9th & 10th hours are paid at time and a half, double time paid thereafter. Second and third Shifts: First eight hours are paid at time and one-half, double time thereafter. Saturdays: All shifts, first eight hours paid at time and one-half, double time thereafter: Sunday all shifts are paid at double time.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday.

(Local #40 & #361)

LABORER (Foundation, Concrete, Excavating, Street Pipe Layer and Common)

Laborer

Excavation and foundation work for buildings, heavy construction, engineering work, and hazardous waste removal in connection with the above work. Landscaping tasks in connection with heavy construction work, engineering work and building projects. Projects include, but are not limited to pollution plants, sewers, parks, subways, bridges, highways, etc.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$43.50 Supplemental Benefit Rate per Hour: \$48.63

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day Memorial Day Independence Day Labor Day Columbus Day Thanksgiving Day Christmas Day

Paid Holidays

Labor Day Thanksgiving Day

Shift Rates

When two shifts are employed, single time rate shall be paid for each shift. When three shifts are found necessary, each shift shall work seven and one half hours (7 $\frac{1}{2}$), but shall be paid for eight (8) hours of labor, and be permitted one half hour for lunch.

(Local #731)

LANDSCAPING

(Landscaping tasks, such as tree pruning, tree removing and spraying in connection with Green Infrastructure maintenance and the planting of street

trees and trees in City parks, but not when such activities are performed as part of construction or reconstruction projects.)

Landscaper (Year 6 and above)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$33.90 Supplemental Benefit Rate per Hour: \$17.05

Landscaper (Year 3 - 5)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$32.81 Supplemental Benefit Rate per Hour: \$17.05

Landscaper (up to 3 years)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$30.06** Supplemental Benefit Rate per Hour: **\$17.05**

Groundperson

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$30.06** Supplemental Benefit Rate per Hour: **\$17.05**

Tree Remover / Pruner

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$39.42 Supplemental Benefit Rate per Hour: \$17.05

Landscaper Sprayer (Pesticide Applicator)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$28.41** Supplemental Benefit Rate per Hour: **\$17.05**

Watering - Plant Maintainer

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$22.88** Supplemental Benefit Rate per Hour: **\$17.05**

Overtime Description

For all overtime work performed, supplemental benefits shall include an additional seventy-five (\$0.75) cents per hour.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Time and one half the regular rate for work on a holiday plus the day's pay.

Paid Holidays

New Year's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Shift Rates

Work performed on a 4pm to 12am shift has a 15% differential. Work performed on a 12am to 8am shift has a 20% differential.

(Local #175)

MARBLE MECHANIC

Marble Setter

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$56.73 Supplemental Benefit Rate per Hour: \$41.76

Marble Finisher

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$44.32 Supplemental Benefit Rate per Hour: \$38.96

Marble Polisher

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$42.91 Supplemental Benefit Rate per Hour: \$31.61

Marble Maintenance Finisher

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$26.73** Supplemental Benefit Rate per Hour: **\$13.59**

Overtime Description

Supplemental Benefit contributions are to be made at the applicable overtime rates.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

(Local #7)

MASON TENDER

Mason Tender

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$39.20** Supplemental Benefit Rate per Hour: **\$31.24**

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

The employer may work two (2) shifts with the first shift at the straight time wage rate and the second shift receiving eight (8) hours paid for seven (7) hours work at the straight time wage rate. When it is not possible to conduct alteration work during regular working hours in a building occupied by tenants, the rule for the second shift will apply.

(Local #79)

MASON TENDER (INTERIOR DEMOLITION WORKER)

Mason Tender Tier A

Tier A Interior Demolition Worker performs all burning, chopping, and other technically skilled tasks related to interior demolition work.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$37.29** Supplemental Benefit Rate per Hour: **\$25.75**

Mason Tender Tier B

Tier B Interior Demolition Worker performs manual work and work incidental to demolition work, such as loading and carting of debris from the work site to an area where it can be loaded in to bins/trucks for removal. Also performs clean-up of the site when demolition is completed.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$26.48** Supplemental Benefit Rate per Hour: **\$20.07**

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

None

(Local #79)

METALLIC LATHER

Metallic Lather

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$46.40** Supplemental Benefit Rate per Hour: **\$49.80** Supplemental Note: For time and one half overtime - \$61.55 For double overtime - \$77.10

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Thanksgiving Day Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M. 1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

Off-shift work outside of normal working hours shall receive straight time rate plus \$12 per hour for the first eight (8) hours.

(Local #46)

MILLWRIGHT

Millwright

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$57.00** Supplemental Benefit Rate per Hour: **\$54.76**

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Presidential Election Day Veteran's Day Thanksgiving Day Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M. 1/2 day on New Year's Eve if work is performed in the A.M.

Shift Rates

Second and third shifts receives the straight time rate of pay plus fifteen (15%) percent allowing for one half hour for a meal. There must be a first shift to work a second and third shift. All additional hours worked shall be paid at the time and one-half rate of pay plus fifteen (15%) percent for weekday hours.

(Local #740)

MOSAIC MECHANIC

Mosaic Mechanic - Mosaic & Terrazzo Mechanic

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$51.66** Supplemental Benefit Rate per Hour: **\$43.67**

Mosaic Mechanic - Mosaic & Terrazzo Finisher

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$50.06** Supplemental Benefit Rate per Hour: **\$43.67**

Mosaic Mechanic - Machine Operator Grinder

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$50.06** Supplemental Benefit Rate per Hour: **\$43.67**

Overtime

Time and one half the regular rate after a 7 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day Washington's Birthday Good Friday Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

(Local #7)

PAINTER

Painter - Brush & Roller

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$43.00** Supplemental Benefit Rate per Hour: **\$36.70** Supplemental Note: **\$43.79** on overtime

Spray & Scaffold / Decorative / Sandblast

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$46.00** Supplemental Benefit Rate per Hour: **\$36.70** Supplemental Note: **\$43.79** on overtime

Overtime

Time and one half the regular rate after a 7 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Thanksgiving Day Christmas Day

Paid Holidays

None

(District Council of Painters #9)

PAINTER - LINE STRIPING (ROADWAY)

Striping - Machine Operator

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$37.00** Supplemental Benefit Rate per Hour: **\$14.37** Supplemental Note: Overtime Supplemental Benefit rate - \$16.25

Lineperson (Thermoplastic)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$41.00** Supplemental Benefit Rate per Hour: **\$14.37** Supplemental Note: Overtime Supplemental Benefit rate - \$16.25

Striping Assistant & Traffic Safety

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$36.75 Supplemental Benefit Rate per Hour: \$14.37 Supplemental Note: Overtime Supplemental Benefit rate - \$16.25

Overtime Description

Time and one half the regular rate for all work in excess of ten (10) straight time hours per day and in excess of forty (40) straight time hours per week.

For Paid Holidays: Employees will only receive Holiday Pay for holidays not worked if said employee worked both the regularly scheduled workday before and after the holiday.

Overtime

Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday. Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Presidential Election Day Thanksgiving Day Christmas Day

Vacation

Employees with one to two years service shall accrue vacation based on hours worked: 250 hours worked - 1 day vacation; 500 hours worked - 2 days vacation; 750 hours worked - 3 days vacation; 900 hours worked - 4 days vacation; 1,000 hours worked - 5 days vacation. Employees with two to five years service receive two weeks vacation. Employees with five to twenty years service receive three weeks vacation. Employees with twenty to twenty-five years service receive four weeks vacation. Employees with 25 or more years service receive five weeks vacation.

(Local #1010)

PAINTER - METAL POLISHER

METAL POLISHER

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$31.88 Supplemental Benefit Rate per Hour: \$10.29

METAL POLISHER - NEW CONSTRUCTION

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$32.83 Supplemental Benefit Rate per Hour: \$10.29

METAL POLISHER - SCAFFOLD OVER 34 FEET

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$35.38 Supplemental Benefit Rate per Hour: \$10.29

ASSISTANT METAL POLISHER

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$24.66** Supplemental Benefit Rate per Hour: **\$9.81**

ASSISTANT METAL POLISHER - NEW CONSTRUCTION

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$25.41 Supplemental Benefit Rate per Hour: \$9.81

ASSISTANT METAL POLISHER - SCAFFOLD OVER 34 FEET

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$27.16** Supplemental Benefit Rate per Hour: **\$9.81**

Overtime Description

All work performed on Saturdays shall be paid at time-in-a half. The exception being; for suspended scaffold work and work deemed as a construction project; an eight (8) hour shift lost during the week due to circumstances beyond the control of the employer, up to a maximum of eight (8) hours per week, may be worked on Saturday at the straight time rate.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Triple time the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Election Day Thanksgiving Day Day after Thanksgiving Christmas Day

Shift Rates

Four Days a week at Ten (10) hours straight a day.

Local 8A-28A

PAINTER - SIGN

Sign Painter

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$44.32 Supplemental Benefit Rate per Hour: \$21.70

Assistant Sign Painter

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$37.66 Supplemental Benefit Rate per Hour: \$19.93

Overtime Description

If any employee is required to work on any of the paid holidays then the employee shall receive double time rate of wages as well as the holiday pay for that day.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Paid Holidays

New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Election Day Thanksgiving Day Day after Thanksgiving Christmas Day

Vacation

At least 1 year of employment	1 week
2 years or more of employment	
8 years or more of employment	

(Local #8A-28A)

PAINTER - STRUCTURAL STEEL

Painters on Structural Steel

Effective Period: 7/1/2021 - 9/30/2021 Wage Rate per Hour: \$51.50 Supplemental Benefit Rate per Hour: \$48.28

Effective Period: 10/1/2021 - 6/30/2022 Wage Rate per Hour: \$53.00 Supplemental Benefit Rate per Hour: \$49.83

Painter - Power Tool

Effective Period: 7/1/2021 - 9/30/2021 Wage Rate per Hour: \$57.50 Supplemental Benefit Rate per Hour: \$48.28 Overtime Wage Rate: \$6.00 above the "Painters on Structural Steel" overtime rate.

Effective Period: 10/1/2021 - 6/30/2022 Wage Rate per Hour: \$59.50 Supplemental Benefit Rate per Hour: \$49.83 Overtime Wage Rate: \$6.50 above the "Painters on Structural Steel" overtime rate.

Overtime Description

Supplemental Benefits shall be paid for each hour worked, up to forty (40) hours per week for the period of May 1st to November 15th or up to fifty (50) hours per week for the period of November 16th to April 30th.

Overtime

Time and one half the regular rate after a 7 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

Second shift is paid at regular hourly wage rates plus a ten percent (10%) differential. There must be a first shift in order to work a second shift.

(Local #806)

PAPERHANGER

Paperhanger

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$46.87 Supplemental Benefit Rate per Hour: \$37.49 Supplemental Note: Supplemental benefits are to be paid at the appropriate straight time and overtime rate.

Overtime

Time and one half the regular rate after a 7 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

Shift Rates

Evening shift - 4:30 P.M. to 12:00 Midnight (regular rate of pay); any work performed before 7:00 A.M. shall be at time and one half the regular base rate of pay.

(District Council of Painters #9)

PAVER AND ROADBUILDER

Paver & Roadbuilder - Formsetter

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$47.85 Supplemental Benefit Rate per Hour: \$48.51 Supplemental Note: For time and one half overtime - \$52.64 For double overtime - \$56.76

Paver & Roadbuilder - Laborer

Paving and road construction work, regardless of material used, including but not limited to preparation of job sites, removal of old surfaces, asphalt and/or concrete, by whatever method, including but not limited to milling; laying of concrete; laying of asphalt for temporary, patchwork, and utility paving (but not production paving); site preparation and incidental work for installation of rubberized materials and similar surfaces; installation and repair of temporary construction fencing; slurry/seal coating, paving stones, maintenance of safety surfaces; play equipment installation, and other related work.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$43.98 Supplemental Benefit Rate per Hour: \$48.51 Supplemental Note: For time and one half overtime - \$52.64 For double overtime - \$56.76

Production Paver & Roadbuilder - Screed Person

(Production paving is asphalt paving when using a paving machine or on a project where a paving machine is traditionally used)

Adjustment of paving machinery on production paving jobs.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$48.45 Supplemental Benefit Rate per Hour: \$48.51 Supplemental Note: For time and one half overtime - \$52.64 For double overtime - \$56.76

Production Paver & Roadbuilder - Raker

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$47.85 Supplemental Benefit Rate per Hour: \$48.51 Supplemental Note: For time and one half overtime - \$52.64 For double overtime - \$56.76

Production Paver & Roadbuilder - Shoveler

General laborer (except removal of surfaces - see Paver and Roadbuilder-Laborer) including but not limited to tamper, AC paint and liquid tar work.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$43.98 Supplemental Benefit Rate per Hour: \$48.51 Supplemental Note: For time and one half overtime - \$52.64 For double overtime - \$56.76

Overtime Description

If an employee works New Year's Day or Christmas Day, they receive the single time rate plus 25%.

For Paid Holidays: Holiday pay for all holidays shall be prorated based two hours per day for each day worked in the holiday week, not to exceed 8 hours of holiday pay.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). Memorial Day Independence Day Labor Day Columbus Day Thanksgiving Day

Paid Holidays

Memorial Day Independence Day Labor Day Thanksgiving Day

Shift Rates

When two shifts are employed, the work period for each shift shall be a continuous eight (8) hours. When three shifts are employed, each shift will work seven and one half (7 $\frac{1}{2}$) hours but will be paid for eight (8) hours at the straight time rate since only one half (1/2) hour is allowed for meal time. When two or more shifts are employed, single time will be paid for each shift.

Night Work - On night work, the first eight (8) hours of work will be paid for at the single time rate, except that production paving work shall be paid at 10% over the single time rate for the screed person, rakers and shovelers directly involved only. This differential is to be paid when there is only one shift and the shift works at night. All other workers will be exempt. Hours worked over eight (8) hours during said shift shall be paid for at the time and one-half rate.

(Local #1010)

PLASTERER

Plasterer

Effective Period: 7/1/2021 - 7/31/2021 Wage Rate per Hour: **\$45.73** Supplemental Benefit Rate per Hour: **\$30.37**

Effective Period: 8/1/2021 - 6/30/2022 Wage Rate per Hour: \$46.00 Supplemental Benefit Rate per Hour: \$28.20

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

When it is not possible to conduct work during regular working hours (between 6:30am and 4:30pm), a shift differential shall be paid at the regular hourly rate plus a twelve percent (12%) per hour differential. Workers on shift work shall be allowed a paid one-half hour meal break.

(Local #262)

PLASTERER - TENDER

Plasterer - Tender

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$39.20 Supplemental Benefit Rate per Hour: \$31.24

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day Washington's Birthday Memorial Day Independence Day Labor Day Presidential Election Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

When work commences outside regular work hours, workers receive an hour additional (differential) wage and supplement payment. Eight hours pay for seven hours work or nine hours pay for eight hours work.

(Mason Tenders District Council)

PLUMBER

Plumber

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$71.25** Supplemental Benefit Rate per Hour: **\$39.95** Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Plumber - Temporary Services

Temporary Services - When there are no Plumbers on the job site, there may be three shifts designed to cover the entire twenty-four hour period, including weekends if necessary, at the following rate straight time.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$57.08 Supplemental Benefit Rate per Hour: \$31.88

Overtime

Double time the regular rate after an 8 hour day. Double time the regular time rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Shift Rates

30% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shifts Monday to Friday. 50% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shift work performed on weekends. For shift work on holidays, double time wages and fringe benefits shall be paid.

(Plumbers Local #1)

PLUMBER (MECHNICAL EQUIPMENT AND SERVICE) (Mechanical Equipment and Service work shall include any repair and/or replacement of the present plumbing system.)

Plumber

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$44.37 Supplemental Benefit Rate per Hour: \$18.31

Overtime

Time and one half the regular rate after an 8 hour day.

Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

(Plumbers Local # 1)

PLUMBER (RESIDENTIAL RATES FOR 1, 2 AND 3 FAMILY HOME CONSTRUCTION)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$49.47 Supplemental Benefit Rate per Hour: \$28.68

Overtime

Double time the regular rate after an 8 hour day. Double time the regular time rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

Shift Rates

30% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shifts Monday to Friday. 50% shift premium shall be paid for wages and fringe benefits for 4:00 pm and midnight shift work performed on weekends. For shift work on holidays, double time wages and fringe benefits shall be paid.

(Plumbers Local #1)

PLUMBER: PUMP & TANK Oil Trades (Installation and Maintenance)

Plumber - Pump & Tank

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$69.33 Supplemental Benefit Rate per Hour: \$27.98

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

Shift Rates

All work outside the regular workday (8:00 A.M. to 3:30 P.M.) is to be paid at time and one half the regular hourly rate

(Plumbers Local #1)

POINTER, WATERPROOFER, CAULKER, SANDBLASTER, STEAMBLASTER (Exterior Building Renovation)

Journeyperson

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$56.77** Supplemental Benefit Rate per Hour: **\$29.91**

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day Martin Luther King Jr. Day President's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

All work outside the regular work day (an eight hour workday between the hours of 6:00 A.M. and 4:00 P.M.) is to be paid at time and one half the regular rate. However, the employer may establish one (1) or two (2) shifts starting at or after 4:00 P.M. to be paid at the regular hourly rate plus a 10% differential.

(Bricklayer District Council)

ROOFER

<u>Roofer</u>

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$44.25 Supplemental Benefit Rate per Hour: \$34.81

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

Second shift - Regular hourly rate plus a 10% differential. Third shift - Regular hourly rate plus a 15% differential. There must be a first shift to work the second shift, and a second shift to work the third shift. All other work outside the regular work day (an eight hour workday between the hours of 5:00 A.M. and 4:00 P.M.) is to be paid at time and one half the regular rate.

(Local #8)

SHEET METAL WORKER

Sheet Metal Worker

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$51.36 Supplemental Benefit Rate per Hour: \$53.34 Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Sheet Metal Worker - Fan Maintenance

(The temporary operation of fans or blowers in new or existing buildings for heating and/or ventilation, and/or air conditioning prior to the completion of the project.)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$41.09 Supplemental Benefit Rate per Hour: \$53.34

Sheet Metal Worker - Duct Cleaner

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$18.49 Supplemental Benefit Rate per Hour: \$11.94

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day Martin Luther King Jr. Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

Shift Rates

Work that can only be performed outside regular working hours (eight hours of work between 7:30 A.M. and 3:30 P.M.) - First shift (work between 3:30 P.M. and 11:30 P.M.) - 10% differential above the established hourly rate. Second shift (work between 11:30 P.M. and 7:30 A.M.) - 15% differential above the established hourly rate.

For Fan Maintenance: On all full shifts of fan maintenance work the straight time hourly rate of pay will be paid for each shift, including nights, Saturdays, Sundays, and holidays.

(Local #28)

SHEET METAL WORKER - SPECIALTY (Decking & Siding)

Sheet Metal Specialty Worker

The first worker to perform this work must be paid at the rate of the Sheet Metal Worker. The second and third workers shall be paid the Specialty Worker Rate. The ratio of One Sheet Metal Worker, then Two Specialty Workers shall be utilized thereafter.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$48.18 Supplemental Benefit Rate per Hour: \$26.87 Supplemental Note: Supplemental benefit contributions are to be made at the applicable overtime rates.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day Martin Luther King Jr. Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Christmas Day

Paid Holidays

None

(Local #28)

SHIPYARD WORKER

Shipyard Mechanic - First Class

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$28.50** Supplemental Benefit Rate per Hour: **\$3.95**

Shipyard Mechanic - Second Class

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$19.07** Supplemental Benefit Rate per Hour: **\$3.59**

Shipyard Laborer - First Class

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$23.40** Supplemental Benefit Rate per Hour: **\$3.75**

Shipyard Laborer - Second Class

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$17.38 Supplemental Benefit Rate per Hour: \$3.52

Shipyard Dockhand - First Class

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$21.57** Supplemental Benefit Rate per Hour: **\$3.68**

Shipyard Dockhand - Second Class

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$17.28** Supplemental Benefit Rate per Hour: **\$3.52**

Overtime Description

Work performed on holiday is paid double time the regular hourly wage rate plus holiday pay.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Time and one half the regular hourly rate after 40 straight time hours in any work week.

Paid Holidays

New Year's Day Martin Luther King Jr. Day President's Day Good Friday Memorial Day Independence Day Labor Day Thanksgiving Day Day after Thanksgiving Christmas Day

Based on Survey Data

SIGN ERECTOR (Sheet Metal, Plastic, Electric, and Neon)

Sign Erector

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$52.29 Supplemental Benefit Rate per Hour: \$57.49

Overtime

Time and one half the regular rate after a 7 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday. Time and one half the regular rate for work on the following holiday(s).

Paid Holidays

New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Election Day Thanksgiving Day Day after Thanksgiving Christmas Day

Shift Rates

Time and one half the regular hourly rate is to be paid for all hours worked outside the regular workday either (7:00 A.M. through 2:30 P.M.) or (8:00 A.M. through 3:30 P.M.)

(Local #137)

STEAMFITTER

Steamfitter

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$59.05 Supplemental Benefit Rate per Hour: \$58.14 Supplemental Note: Overtime supplemental benefit rate: \$115.54

Steamfitter - Temporary Services

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$44.88 Supplemental Benefit Rate per Hour: \$47.31

Overtime Description

Double time after a 7 hour day except for Temporary Services.

Overtime

Double time the regular time rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

Shift Rates

May be performed outside of the regular workday except Saturday, Sunday and Holidays. When shift work is performed the wage rate for regular time worked is a 15% percent premium on wage and 15% percent premium on supplemental benefits.

Local 638

STEAMFITTER - REFRIGERATION AND AIR CONDITIONER (Maintenance and Installation Service Person)

Refrigeration and Air Conditioner Mechanic

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$42.85** Supplemental Benefit Rate per Hour: **\$19.46**

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day Independence Day Labor Day Veteran's Day Thanksgiving Day Christmas Day

Double time and one half the regular rate for work on the following holiday(s). Martin Luther King Jr. Day President's Day Memorial Day Columbus Day

Paid Holidays

New Year's Day Martin Luther King Jr. Day President's Day Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Christmas Day

(Local #638-B)

STONE MASON - SETTER

Stone Mason - Setter

(Assisted by Derrickperson and Rigger)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$56.43 Supplemental Benefit Rate per Hour: \$48.52

Overtime

Time and one half the regular rate after a 7 hour day. Time and one half the regular rate for Saturday.

Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day Washington's Birthday Good Friday Memorial Day Independence Day Labor Day Thanksgiving Day Christmas Day

Paid Holidays

1/2 day on Christmas Eve if work is performed in the A.M.

Shift Rates

For all work outside the regular workday (8:00 A.M. to 3:30 P.M. Monday through Friday), the pay shall be straight time plus a ten percent (10%) differential.

(Bricklayers District Council)

TAPER

Drywall Taper

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$48.47 Supplemental Benefit Rate per Hour: \$29.06

Overtime

Time and one half the regular rate after a 7 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day Martin Luther King Jr. Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Thanksgiving Day Christmas Day

Paid Holidays

Any worker who reports to work on Christmas Eve or New Year's Eve pursuant to his employer's instruction shall be entitled to three (3) hours afternoon pay without working.

(Local #1974)

TELECOMMUNICATION WORKER

(Install/maintain/repair telecommunications cables carrying data, video, and/or voice except for installation on building construction/alteration/renovation projects.)

Telecommunication Worker

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$47.03 Supplemental Benefit Rate per Hour: \$23.15 Supplemental Note: The above rate applies for Manhattan, Bronx, Brooklyn, Queens. \$22.84 for Staten Island only.

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Time and one half the regular rate for Sunday.

Overtime Holidays

Time and one half the regular rate for work on the following holiday(s). New Year's Day Lincoln's Birthday Washington's Birthday Memorial Day Independence Day Labor Day Columbus Day Election Day Veteran's Day Thanksgiving Day Christmas Day

Paid Holidays

New Year's Day Lincoln's Birthday Washington's Birthday Memorial Day Independence Day

Labor Day Columbus Day Election Day Veteran's Day Thanksgiving Day Christmas Day Employees have the option of observing either Martin Luther King's Birthday or the day after Thanksgiving instead of Lincoln's Birthday

Shift Rates

For any workday that starts before 8A.M. or ends after 6P.M. there is a 10% differential for the applicable worker's hourly rate.

Vacation

After 6 months	one week.
After 12 months but less than 7 years	two weeks.
After 7 or more but less than 15 years	
After 15 years or more but less than 25 years	four weeks.

(C.W.A.)

TILE FINISHER

Tile Finisher

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$43.71 Supplemental Benefit Rate per Hour: \$35.10

Overtime

Time and one half the regular rate after a 7 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Paid Holidays

None

Shift Rates

Off shift work day (work performed outside the regular 8:00 A.M. to 3:30 P.M. workday): shift differential of one and one quarter (1¹/₄) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local #7)

TILE LAYER - SETTER

Tile Layer - Setter

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$56.42** Supplemental Benefit Rate per Hour: **\$39.75**

Overtime

Time and one half the regular rate after a 7 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Good Friday Memorial Day Independence Day Labor Day Columbus Day Veteran's Day Thanksgiving Day Day after Thanksgiving Christmas Day

Shift Rates

Off shift work day (work performed outside the regular 8:00 A.M. to 3:30 P.M. workday): shift differential of one and one quarter (1¼) times the regular straight time rate of pay for the seven hours of actual off-shift work.

(Local #7)

TIMBERPERSON

Timberperson

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$52.50 Supplemental Benefit Rate per Hour: \$52.94

Overtime

Time and one half the regular rate after an 8 hour day. Time and one half the regular rate for Saturday. Double time the regular rate for Sunday. Saturday may be used as a make-up day at straight time when a day is lost during that week to inclement weather.

Overtime Holidays

Double time the regular rate for work on the following holiday(s). New Year's Day President's Day Memorial Day Independence Day Labor Day Columbus Day Presidential Election Day Thanksgiving Day Christmas Day

Paid Holidays

None

Shift Rates

Off shift work commencing between 5:00 P.M. and 11:00 P.M. shall work eight and one half hours allowing for one half hour for lunch. The wage rate shall be 113% of the straight time hourly wage rate. Benefits for off-shift work shall be paid at the straight time rate.

(Local #1536)

TUNNEL WORKER

Blasters, Mucking Machine Operators (Compressed Air Rates)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$68.58 Supplemental Benefit Rate per Hour: \$60.19

Tunnel Workers (Compressed Air Rates)

Includes shield driven liner plate portions or solidification portions work (8 hour shift) during excavation phase.

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$66.14** Supplemental Benefit Rate per Hour: **\$58.29**

Top Nipper (Compressed Air Rates)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$65.04** Supplemental Benefit Rate per Hour: **\$57.14**

Outside Lock Tender, Outside Gauge Tender, Muck Lock Tender (Compressed Air Rates)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$63.74** Supplemental Benefit Rate per Hour: **\$56.20**

Bottom Bell & Top Bell Signal Person: Shaft Person (Compressed Air Rates)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$63.74** Supplemental Benefit Rate per Hour: **\$56.20**

Changehouse Attendant: Powder Watchperson (Compressed Air Rates)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$56.04** Supplemental Benefit Rate per Hour: **\$52.83**

Blasters (Free Air Rates)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$65.41** Supplemental Benefit Rate per Hour: **\$57.80**

Tunnel Workers (Free Air Rates)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$62.58** Supplemental Benefit Rate per Hour: **\$55.38**

All Others (Free Air Rates)

Effective Period: 7/1/2021 - 6/30/2022

Wage Rate per Hour: \$57.84 Supplemental Benefit Rate per Hour: \$51.26

Microtunneling (Free Air Rates)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$50.06** Supplemental Benefit Rate per Hour: **\$44.30**

Overtime Description

For work performed during excavation and primary concrete tunnel lining phases - Double time the regular rate after an 8 hour day and Saturday, Sunday and on the following holiday(s) listed below.

For Repair-Maintenance Work on Existing Equipment and Facilities - Time and one half the regular rate after a 7 hour day, Saturday, Sunday and double time the regular rate for work on the following holiday(s) listed below. For Small-Bore Micro Tunneling Machines - Time and one-half the regular rate shall be paid for all overtime. For work not listed above - Time and one half the regular rate after an 8 hour day and Saturday and double time the regular rate after an 8 hour day and Saturday and double time the regular rate after an 8 hour day and Saturday and double time the regular rate on Sunday and on the following holiday(s) listed below.

Paid Holidays

New Year's Day Lincoln's Birthday President's Day Memorial Day Independence Day Labor Day Columbus Day Election Day Veteran's Day Thanksgiving Day Christmas Day

(Local #147)

UTILITY LOCATOR (Locate & mark underground utilities for street excavation.)

Utility Locator (Year 7 and above)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$31.56 Supplemental Benefit Rate per Hour: \$1.43

Utility Locator (Year 5 - 6)

Effective Period: 7/1/2021 - 6/30/2022

Wage Rate per Hour: \$22.85 Supplemental Benefit Rate per Hour: \$1.43

Utility Locator (Year 4)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$21.54** Supplemental Benefit Rate per Hour: **\$1.43**

Utility Locator (Year 3)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$20.30** Supplemental Benefit Rate per Hour: **\$1.43**

Utility Locator (Year 2)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$19.13 Supplemental Benefit Rate per Hour: \$1.43

Utility Locator (Year 1)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$18.04 Supplemental Benefit Rate per Hour: \$1.43

Utility Locator (Up to 1 year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$17.00** Supplemental Benefit Rate per Hour: **\$1.43** Supplemental Note: No benefits for the first 90 days of employment.

Overtime

Time and one half the regular rate for work on the following holiday(s). Time and one half the regular hourly rate after 40 straight time hours in any work week.

Paid Holidays

New Year's Day Memorial Day Independence Day Thanksgiving Day Christmas Day

Shift Rates

10% shift differential to employees working any shift starting between noon and 5 AM.

Vacation

For up to 1 year 0 hours For year 1 - 2 48 hours per year For year 3 - 9 96 hours per year For year 10 or more 144 hours per year

Sick Days:

For up to 1 year employee receives 40 hours paid sick leave.

For year 1 employee earns 2 hours of paid sick leave for every 100 overtime hours worked.

For year 2 - 9 years employee earns 4 hours of paid sick leave for every 100 overtime hours worked.

For year 10 or more employee earns 6 hours of paid sick leave for every 100 overtime hours worked.

(C.W.A.)

WELDER TO BE PAID AT THE RATE OF THE JOURNEYPERSON IN THE TRADE PERFORMING THE WORK.

OFFICE OF THE COMPTROLLER

CITY OF NEW YORK

CONSTRUCTION APPRENTICE PREVAILING WAGE SCHEDULE

Pursuant to Labor Law § 220 (3-e), only apprentices who are individually registered in a bona fide program to which the employer contractor is a participant and registered with the New York State Department of Labor, may be paid at the apprentice rates in this schedule. Apprentices who are not so registered must be paid as journey persons in accordance with the trade classification of the work they actually performed.

Apprentice ratios are established to ensure the proper safety, training and supervision of apprentices. A ratio establishes the number of journey workers required for each apprentice in a program and on a job site. Ratios are interpreted as follows: in the case of a 1:1, 1:4 ratio, there must be one journey worker for the first apprentice, and four additional journey workers for each subsequent apprentice.

TABLE OF CONTENTS

CLASSIFICATION

PAGE

	TAOL
BOILERMAKER	3
BRICKLAYER	4
CARPENTER	-
CARPENTER - HIGH RISE CONCRETE FORMS	5
CEMENT MASON	
CEMENT AND CONCRETE WORKER	
DERRICKPERSON & RIGGER (STONE)	7
DOCKBUILDER/PILE DRIVER	8
ELECTRICIAN	-
ELEVATOR CONSTRUCTOR	10
ELEVATOR REPAIR & MAINTENANCE	11
ENGINEER	
ENGINEER - OPERATING	13
FLOOR COVERER	
GLAZIER	
HAZARDOUS MATERIAL HANDLER	
HEAT & FROST INSULATOR	16
HOUSE WRECKER	
IRON WORKER - ORNAMENTAL	17
IRON WORKER - STRUCTURAL	-
LABORER (FOUNDATION, CONCRETE, EXCAVATING, STREET PIPE LAYER & COMMON)	18
MARBLE MECHANICS	19
MASON TENDER	21
METALLIC LATHER	
MILLWRIGHT	
PAINTER	-
PAINTER - METAL POLISHER	
PAINTER - STRUCTURAL STEEL	
PAVER AND ROADBUILDER	-
PLASTERER	
PLASTERER - TENDER	
PLUMBER	
POINTER, WATERPROOFER, CAULKER, SANDBLASTER, STEAMBLASTER	
ROOFER	
SHEET METAL WORKER	-
SIGN ERECTOR	
STEAMFITTER	-
STEAMFITTER - REFRIGERATION & AIR CONDITIONER	
STONE MASON - SETTER	
TAPER	-
TILE LAYER - SETTER	
TIMBERPERSON	36

BOILERMAKER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Boilermaker (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 65% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$33.12

Boilermaker (Second Year: 1st Six Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 70% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$35.05

Boilermaker (Second Year: 2nd Six Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 75% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$37.01

Boilermaker (Third Year: 1st Six Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 80% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$38.92

Boilermaker (Third Year: 2nd Six Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 85% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$40.87

Boilermaker (Fourth Year: 1st Six Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 90% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$42.82

Boilermaker (Fourth Year: 2nd Six Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 95% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$44.74

(Local #5)

BRICKLAYER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Bricklayer (First 750 Hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 50% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$22.95

Bricklayer (Second 750 Hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 60% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$22.95

Bricklayer (Third 750 Hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 70% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$22.95

Bricklayer (Fourth 750 Hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 80% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$22.95

Bricklayer (Fifth 750 Hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 90% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$22.95

Bricklayer (Sixth 750 Hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 95% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$22.95

(Bricklayer District Council)

CARPENTER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Carpenter (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour For Building Apprentice: \$19.55 Supplemental Benefit Rate Per Hour For Building Apprentice: \$16.35

Wage Rate Per Hour For Heavy Apprentice: \$23.37 Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$35.49

Carpenter (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour For Building Apprentice: \$22.55 Supplemental Benefit Rate Per Hour For Building Apprentice: \$17.85

Wage Rate Per Hour For Heavy Apprentice: \$28.97 Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$35.49

Carpenter (Third Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour For Building Apprentice: \$26.80 Supplemental Benefit Rate Per Hour For Building Apprentice: \$21.45

Wage Rate Per Hour For Heavy Apprentice: \$37.35 Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$35.49

Carpenter (Fourth Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour For Building Apprentice: \$34.68 Supplemental Benefit Rate Per Hour For Building Apprentice: \$23.45

Wage Rate Per Hour For Heavy Apprentice: \$45.74 Supplemental Benefit Rate Per Hour For Heavy Apprentice: \$35.49

(Carpenters District Council)

CARPENTER - HIGH RISE CONCRETE FORMS (Ratio of Apprentice to Journeyperson: 1 to 1, 2 to 5)

Carpenter - High Rise (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$18.27 Supplemental Benefit Rate per Hour: \$16.55

Carpenter - High Rise (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$24.70** Supplemental Benefit Rate per Hour: **\$16.73**

Carpenter - High Rise (Third Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$31.28 Supplemental Benefit Rate per Hour: \$16.95

Carpenter - High Rise (Fourth Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$38.90** Supplemental Benefit Rate per Hour: **\$17.20**

(Carpenters District Council)

CEMENT MASON (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Cement Mason (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$19.57 Supplemental Benefit Rate per Hour: \$15.61

Cement Mason (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$24.40** Supplemental Benefit Rate per Hour: **\$15.91**

Cement Mason (Third Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$29.68** Supplemental Benefit Rate per Hour: **\$16.02**

(Local #780)

CEMENT AND CONCRETE WORKER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Cement & Concrete Worker (First 1333 hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 53% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$14.79

Cement & Concrete Worker (Second 1333 hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 69% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$19.72

Cement & Concrete Worker (Last 1334 hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 85% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$21.30

(Cement Concrete Workers District Council)

DERRICKPERSON & RIGGER (STONE) (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Derrickperson & Rigger (stone) - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 50% of Journeyperson's rate Supplemental Benefit Rate Per Hour: 50% of Journeyperson's rate

Derrickperson & Rigger (stone) - Second Year: 1st Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 70% of Journeyperson's rate Supplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

Derrickperson & Rigger (stone) - Second Year: 2nd Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 80% of Journeyperson's rate Supplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

Derrickperson & Rigger (stone) - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 90% of Journeyperson's rate Supplemental Benefit Rate Per Hour: 75% of Journeyperson's rate

(Local #197)

DOCKBUILDER/PILE DRIVER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

Dockbuilder/Pile Driver (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: \$23.37 Supplemental Benefit Rate Per Hour: \$35.49

Dockbuilder/Pile Driver (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: \$28.97 Supplemental Benefit Rate Per Hour: \$35.49

Dockbuilder/Pile Driver (Third Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: \$37.35 Supplemental Benefit Rate Per Hour: \$35.49

Dockbuilder/Pile Driver (Fourth Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: \$45.74

Supplemental Benefit Rate Per Hour: \$35.49

(Carpenters District Council)

ELECTRICIAN (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Electrician (First Term: 0-6 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$17.25 Supplemental Benefit Rate per Hour: \$14.93 Overtime Supplemental Rate Per Hour: \$16.07

Electrician (First Term: 7-12 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$17.75 Supplemental Benefit Rate per Hour: \$15.19 Overtime Supplemental Rate Per Hour: \$16.36

Electrician (Second Term: 0-6 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$18.75 Supplemental Benefit Rate per Hour: \$15.70 Overtime Supplemental Rate Per Hour: \$16.95

Electrician (Second Term: 7-12 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$19.75 Supplemental Benefit Rate per Hour: \$16.22 Overtime Supplemental Rate Per Hour: \$17.53

Electrician (Third Term: 0-6 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$20.75** Supplemental Benefit Rate per Hour: **\$16.74** Overtime Supplemental Rate Per Hour: **\$18.11**

Electrician (Third Term: 7-12 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$21.75** Supplemental Benefit Rate per Hour: **\$17.26** Overtime Supplemental Rate Per Hour: **\$18.70**

Electrician (Fourth Term: 0-6 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$22.75** Supplemental Benefit Rate per Hour: **\$17.77** Overtime Supplemental Rate Per Hour: **\$19.28**

Electrician (Fourth Term: 7-12 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$24.75** Supplemental Benefit Rate per Hour: **\$18.81** Overtime Supplemental Rate Per Hour: **\$20.45**

Electrician (Fifth Term: 0-12 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$26.00** Supplemental Benefit Rate per Hour: **\$22.06** Overtime Supplemental Rate Per Hour: **\$23.70**

Electrician (Fifth Term: 13-18 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$30.50** Supplemental Benefit Rate per Hour: **\$24.45** Overtime Supplemental Rate Per Hour: **\$26.38**

Overtime Description

Overtime Wage paid at time and one half the regular rate

(Local #3)

ELEVATOR CONSTRUCTOR (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 2)

Elevator (Constructor) - First Year

Effective Period: 7/1/2021 - 3/16/2022 Wage Rate Per Hour: 50% of Journeyperson's rate Supplemental Rate Per Hour: \$32.76

Effective Period: 3/17/2022 - 6/30/2022 Wage Rate Per Hour: 50% of Journeyperson's rate Supplemental Rate Per Hour: \$33.38

Elevator (Constructor) - Second Year

Effective Period: 7/1/2021 - 3/16/2022 Wage Rate Per Hour: 55% of Journeyperson's rate Supplemental Rate Per Hour: \$33.31

Effective Period: 3/17/2022 - 6/30/2022 Wage Rate Per Hour: 55% of Journeyperson's rate Supplemental Rate Per Hour: \$33.96

Elevator (Constructor) - Third Year

Effective Period: 7/1/2021 - 3/16/2022 Wage Rate Per Hour: 65% of Journeyperson's rate Supplemental Rate Per Hour: \$34.42

Effective Period: 3/17/2022 - 6/30/2022 Wage Rate Per Hour: 65% of Journeyperson's rate Supplemental Rate Per Hour: \$35.10

Elevator (Constructor) - Fourth Year

Effective Period: 7/1/2021 - 3/16/2022 Wage Rate Per Hour: 75% of Journeyperson's rate Supplemental Rate Per Hour: \$35.52

Effective Period: 3/17/2022 - 6/30/2022 Wage Rate Per Hour: 75% of Journeyperson's rate Supplemental Rate Per Hour: \$36.24

(Local #1)

ELEVATOR REPAIR & MAINTENANCE (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 2)

Elevator Service/Modernization Mechanic (First Year)

Effective Period: 7/1/2021 - 3/16/2022 Wage Rate Per Hour: 50% of Journeyperson's rate Supplemental Benefit Per Hour: \$32.71

Effective Period: 3/17/2022 - 6/30/2022 Wage Rate Per Hour: 50% of Journeyperson's rate Supplemental Benefit Per Hour: \$33.33

Elevator Service/Modernization Mechanic (Second Year)

Effective Period: 7/1/2021 - 3/16/2022 Wage Rate Per Hour: 55% of Journeyperson's rate Supplemental Benefit Per Hour: \$33.26

Effective Period: 3/17/2022 - 6/30/2022 Wage Rate Per Hour: 55% of Journeyperson's rate Supplemental Benefit Per Hour: \$33.90

Elevator Service/Modernization Mechanic (Third Year)

Effective Period: 7/1/2021 - 3/16/2022 Wage Rate Per Hour: 65% of Journeyperson's rate Supplemental Benefit Per Hour: \$34.35

Effective Period: 3/17/2022 - 6/30/2022 Wage Rate Per Hour: 65% of Journeyperson's rate Supplemental Benefit Per Hour: \$35.03

Elevator Service/Modernization Mechanic (Fourth Year)

Effective Period: 7/1/2021 - 3/16/2022 Wage Rate Per Hour: 75% of Journeyperson's rate Supplemental Benefit Per Hour: \$35.45

Effective Period: 3/17/2022 - 6/30/2022 Wage Rate Per Hour: 75% of Journeyperson's rate Supplemental Benefit Per Hour: \$36.17

(Local #1)

ENGINEER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 5)

Engineer - First Year

Effective Period: 7/1/2021 - 6/30/2022

Wage Rate per Hour: \$25.38 Supplemental Benefit Rate per Hour: \$28.51

Engineer - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$31.72 Supplemental Benefit Rate per Hour: \$28.51

Engineer - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$34.89 Supplemental Benefit Rate per Hour: \$28.51

Engineer - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$38.06 Supplemental Benefit Rate per Hour: \$28.51

(Local #15)

ENGINEER - OPERATING

(Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 5)

Operating Engineer - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 40% of Operating Engineer - Road & Heavy Construction V's Rate Supplemental Benefit Per Hour: \$24.05

Operating Engineer - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 50% of Operating Engineer - Road & Heavy Construction V's Rate Supplemental Benefit Per Hour: \$24.05

Operating Engineer - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 60% of Operating Engineer - Road & Heavy Construction V's Rate Supplemental Benefit Per Hour: \$24.05

(Local #14)

FLOOR COVERER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Floor Coverer (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$24.55** Supplemental Benefit Rate per Hour: **\$16.35**

Floor Coverer (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$27.55** Supplemental Benefit Rate per Hour: **\$17.85**

Floor Coverer (Third Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$31.80 Supplemental Benefit Rate per Hour: \$21.45

Floor Coverer (Fourth Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$39.68 Supplemental Benefit Rate per Hour: \$23.45

(Carpenters District Council)

GLAZIER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Glazier (First Year)

Effective Period: 7/1/2021 - 6/30/2022

Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Glazier (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

Glazier (Third Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Glazier (Fourth Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #1281)

HAZARDOUS MATERIAL HANDLER

(Ratio of Apprentice Journeyperson: 1 to 1, 1 to 3)

Handler (First 1000 Hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 78% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$14.25

Handler (Second 1000 Hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 80% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$14.25

Handler (Third 1000 Hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 83% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$14.25

Handler (Fourth 1000 Hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 89% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$14.25 (Local #78)

HEAT & FROST INSULATOR (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Heat & Frost Insulator (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Heat & Frost Insulator (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

Heat & Frost Insulator (Third Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Heat & Frost Insulator (Fourth Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 70% of Journeyperson's rate

(Local #12)

HOUSE WRECKER (TOTAL DEMOLITION) (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

House Wrecker - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$20.20** Supplemental Benefit Rate per Hour: **\$10.07**

House Wrecker - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$22.15** Supplemental Benefit Rate per Hour: **\$10.07**

House Wrecker - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$23.65** Supplemental Benefit Rate per Hour: **\$10.07**

House Wrecker - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$26.15** Supplemental Benefit Rate per Hour: **\$10.07**

(Mason Tenders District Council)

IRON WORKER - ORNAMENTAL (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Iron Worker (Ornamental) - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$20.63** Supplemental Benefit Rate per Hour: **\$17.61**

Iron Worker (Ornamental) - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$24.22** Supplemental Benefit Rate per Hour: **\$18.86**

Iron Worker (Ornamental) - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$27.80** Supplemental Benefit Rate per Hour: **\$20.12**

Iron Worker (Ornamental) - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$31.38 Supplemental Benefit Rate per Hour: \$21.38

(Local #580)

IRON WORKER - STRUCTURAL (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

Iron Worker (Structural) - 1st Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$28.21** Supplemental Benefit Rate per Hour: **\$57.12**

Iron Worker (Structural) - 7-18 Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$28.81** Supplemental Benefit Rate per Hour: **\$57.12**

Iron Worker (Structural) - 19 - 36 months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$29.42** Supplemental Benefit Rate per Hour: **\$57.12**

(Local #40 and #361)

LABORER (FOUNDATION, CONCRETE, EXCAVATING, STREET PIPE LAYER & COMMON)

(Ratio Apprentice to Journeyperson: 1 to 1, 1 to 3)

Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) - First 1000 hours

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 50% of Journeyperson's rate Supplemental Rate Per Hour: \$48.63

Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -Second 1000 hours

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 60% of Journeyperson's rate Supplemental Rate Per Hour: \$48.63

Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -Third 1000 hours

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 75% of Journeyperson's rate Supplemental Rate Per Hour: \$48.63

Laborer (Foundation, Concrete, Excavating, Street Pipe Layer & Common) -Fourth 1000 hours

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 90% of Journeyperson's rate Supplemental Rate Per Hour: \$48.63

(Local #731)

MARBLE MECHANICS (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Cutters & Setters - First 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Cutters & Setters - Second 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 45% of Journeyperson's rate

Cutters & Setters - Third 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

Cutters & Setters - Fourth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 55% of Journeyperson's rate

Cutters & Setters - Fifth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Cutters & Setters - Sixth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 65% of Journeyperson's rate

Cutters & Setters - Seventh 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 70% of Journeyperson's rate

Cutters & Setters - Eighth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 75% of Journeyperson's rate

Cutters & Setters - Ninth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 85% of Journeyperson's rate

Cutters & Setters - Tenth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 95% of Journeyperson's rate

Polishers & Finishers - First 900 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 70% of Journeyperson's rate

NO BENEFITS PAID DURING THE FIRST TWO MONTHS (PROBATIONARY PERIOD)

Polishers & Finishers - Second 900 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

Polishers & Finishers - Third 900 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 90% of Journeyperson's rate

(Local #7)

MASON TENDER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Mason Tender - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$20.20** Supplemental Benefit Rate per Hour: **\$10.07**

Mason Tender - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$22.15** Supplemental Benefit Rate per Hour: **\$10.07**

Mason Tender - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$23.65** Supplemental Benefit Rate per Hour: **\$10.07**

Mason Tender - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$26.15** Supplemental Benefit Rate per Hour: **\$10.07**

(Local #79)

METALLIC LATHER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Metallic Lather (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$21.00** Supplemental Benefit Rate per Hour: **\$17.87**

Metallic Lather (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$22.00** Supplemental Benefit Rate per Hour: **\$16.87**

Metallic Lather (Third Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$33.10 Supplemental Benefit Rate per Hour: \$21.32

Metallic Lather (Fourth Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$35.60 Supplemental Benefit Rate per Hour: \$21.82

(Local #46)

MILLWRIGHT (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Millwright (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$30.74 Supplemental Benefit Rate per Hour: \$35.19

Millwright (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$36.19 Supplemental Benefit Rate per Hour: \$38.89

Millwright (Third Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$41.64 Supplemental Benefit Rate per Hour: \$43.24

Millwright (Fourth Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$52.54 Supplemental Benefit Rate per Hour: \$50.00

(Local #740)

PAINTER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Painter - Brush & Roller - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$17.20 Supplemental Benefit Rate per Hour: \$16.67

Painter - Brush & Roller - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$21.50** Supplemental Benefit Rate per Hour: **\$21.44**

Painter - Brush & Roller - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$25.80** Supplemental Benefit Rate per Hour: **\$25.27**

Painter - Brush & Roller - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$34.40** Supplemental Benefit Rate per Hour: **\$32.51**

(District Council of Painters)

PAINTER - METAL POLISHER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Metal Polisher (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$16.00** Supplemental Benefit Rate per Hour: **\$7.36** New Construction - Wage Rate Per Hour: **\$16.39** Scaffold Over 34 Feet - Wage Rate Per Hour: **\$18.50**

Metal Polisher (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$17.00** Supplemental Benefit Rate per Hour: **\$7.36** New Construction - Wage Rate Per Hour: **\$17.44** Scaffold Over 34 Feet - Wage Rate Per Hour: **\$19.50**

<u>Metal Polisher (Third Year)</u>

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$18.00** Supplemental Benefit Rate per Hour: **\$7.36** New Construction - Wage Rate Per Hour: **\$18.54** Scaffold Over 34 Feet - Wage Rate Per Hour: **\$20.50**

(Local 8A-28)

PAINTER - STRUCTURAL STEEL (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Painters - Structural Steel (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 40% of Journeyperson's rate

Painters - Structural Steel (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Painters - Structural Steel (Third Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 80% of Journeyperson's rate

(Local #806)

PAVER AND ROADBUILDER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Paver and Roadbuilder - First Year (Minimum 1000 hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$29.86** Supplemental Benefit Rate per Hour: **\$23.55**

Paver and Roadbuilder - Second Year (Minimum 1000 hours)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$31.50** Supplemental Benefit Rate per Hour: **\$23.55**

(Local #1010)

PLASTERER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3) (Each Term is 800 Hours.)

Plasterer - First Term

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 55% of Journeyperson's rate Supplemental Rate Per Hour: \$17.48

Plasterer - Second Term

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 60% of Journeyperson's rate Supplemental Rate Per Hour: \$18.63

Plasterer - Third Term

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 70% of Journeyperson's rate Supplemental Rate Per Hour: \$20.93

Plasterer - Fourth Term

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 75% of Journeyperson's rate Supplemental Rate Per Hour: \$22.10

(Local #262)

PLASTERER - TENDER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Plasterer Tender - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$20.20** Supplemental Benefit Rate per Hour: **\$10.07**

Plasterer Tender - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$22.15** Supplemental Benefit Rate per Hour: **\$10.07**

Plasterer Tender - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$23.65** Supplemental Benefit Rate per Hour: **\$10.07**

Plasterer Tender - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022

Wage Rate per Hour: \$26.15 Supplemental Benefit Rate per Hour: \$10.07

(Local #79)

PLUMBER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Plumber - First Year: 1st Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$16.78 Supplemental Benefit Rate per Hour: \$5.43

Plumber - First Year: 2nd Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$19.78 Supplemental Benefit Rate per Hour: \$6.43

Plumber - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$28.36** Supplemental Benefit Rate per Hour: **\$21.19**

Plumber - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$30.46** Supplemental Benefit Rate per Hour: **\$21.19**

Plumber - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$33.31 Supplemental Benefit Rate per Hour: \$21.19

Plumber - Fifth Year: 1st Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$34.71**

Supplemental Benefit Rate per Hour: \$21.19

Plumber - Fifth Year: 2nd Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$46.78 Supplemental Benefit Rate per Hour: \$21.19

(Plumbers Local #1)

POINTER, WATERPROOFER, CAULKER, SANDBLASTER, STEAMBLASTER (Exterior Building Renovation) (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$28.92** Supplemental Benefit Rate per Hour: **\$14.81**

Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$32.58 Supplemental Benefit Rate per Hour: \$19.86

Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$37.63 Supplemental Benefit Rate per Hour: \$23.61

Pointer, Waterproofer, Caulker, Sandblaster, Steamblaster - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$45.44 Supplemental Benefit Rate per Hour: \$24.61

(Bricklayer District Council)

ROOFER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 2)

Roofer - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 35% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$3.51

Roofer - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 50% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$17.54

Roofer - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 60% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$20.99

Roofer - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 75% of Journeyperson's rate Supplemental Benefit Rate Per Hour: \$26.18

(Local #8)

SHEET METAL WORKER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Sheet Metal Worker (0-6 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 25% of Journeyperson's rate Supplemental Rate Per Hour: \$6.76

Sheet Metal Worker (7-18 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 35% of Journeyperson's rate Supplemental Rate Per Hour: \$19.55

Sheet Metal Worker (19-30 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 45% of Journeyperson's rate Supplemental Rate Per Hour: \$26.65

Sheet Metal Worker (31-36 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 55% of Journeyperson's rate Supplemental Rate Per Hour: \$31.50

Sheet Metal Worker (37-42 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 55% of Journeyperson's rate Supplemental Rate Per Hour: \$31.50

Sheet Metal Worker (43-48 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 70% of Journeyperson's rate Supplemental Rate Per Hour: \$38.78

Sheet Metal Worker (49-54 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 70% of Journeyperson's rate Supplemental Rate Per Hour: \$38.78

Sheet Metal Worker (55-60 Months)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 80% of Journeyperson's rate Supplemental Rate Per Hour: \$43.65

(Local #28)

SIGN ERECTOR (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Sign Erector - First Year: 1st Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 35% of Journeyperson's rate Supplemental Rate Per Hour: \$16.51

Sign Erector - First Year: 2nd Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 40% of Journeyperson's rate Supplemental Rate Per Hour: \$18.74

Sign Erector - Second Year: 1st Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 45% of Journeyperson's rate Supplemental Rate Per Hour: \$20.96

Sign Erector - Second Year: 2nd Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 50% of Journeyperson's rate Supplemental Rate Per Hour: \$23.21

Sign Erector - Third Year: 1st Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 55% of Journeyperson's rate Supplemental Rate Per Hour: \$31.44

Sign Erector - Third Year: 2nd Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 60% of Journeyperson's rate Supplemental Rate Per Hour: \$34.20

Sign Erector - Fourth Year: 1st Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 65% of Journeyperson's rate Supplemental Rate Per Hour: \$37.76

Sign Erector - Fourth Year: 2nd Six Months

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 70% of Journeyperson's rate Supplemental Rate Per Hour: \$40.62

Sign Erector - Fifth Year

Effective Period: 7/1/2021 - 6/30/2022

Wage Rate Per Hour: 75% of Journeyperson's rate Supplemental Rate Per Hour: \$43.44

Sign Erector - Sixth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 80% of Journeyperson's rate Supplemental Rate Per Hour: \$46.27

(Local #137)

STEAMFITTER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Steamfitter - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate and Supplemental Per Hour: 40% of Journeyperson's rate

Steamfitter - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate and Supplemental Rate Per Hour: 50% of Journeyperson's rate.

Steamfitter - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate and Supplemental Rate per Hour: 65% of Journeyperson's rate.

Steamfitter - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate and Supplemental Rate Per Hour: 80% of Journeyperson's rate.

Steamfitter - Fifth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate and Supplemental Rate Per Hour: 85% of Journeyperson's rate.

(Local #638)

STEAMFITTER - REFRIGERATION & AIR CONDITIONER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 3)

Refrigeration & Air Conditioner (First Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$20.75** Supplemental Benefit Rate per Hour: **\$12.99**

Refrigeration & Air Conditioner (Second Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$25.04 Supplemental Benefit Rate per Hour: \$14.23

Refrigeration & Air Conditioner (Third Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$29.17** Supplemental Benefit Rate per Hour: **\$15.53**

Refrigeration & Air Conditioner (Fourth Year)

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$35.22 Supplemental Benefit Rate per Hour: \$17.29

(Local #638-B)

STONE MASON - SETTER (Ratio Apprentice of Journeyperson: 1 to 1, 1 to 2)

Stone Mason - Setters - First 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Second 750 Hours

Effective Period: 7/1/2021 - 6/30/2022

Wage Rate Per Hour: 60% of Journeyperson's rate Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Third 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 70% of Journeyperson's rate Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Fourth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 80% of Journeyperson's rate Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Fifth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 90% of Journeyperson's rate Supplemental Rate Per Hour: 50% of Journeyperson's rate

Stone Mason - Setters - Sixth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: 100% of Journeyperson's rate Supplemental Rate Per Hour: 50% of Journeyperson's rate

(Bricklayers District Council)

TAPER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Drywall Taper - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$20.97** Supplemental Benefit Rate per Hour: **\$13.55**

Drywall Taper - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$24.24 Supplemental Benefit Rate per Hour: \$20.31

Drywall Taper - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: **\$29.08** Supplemental Benefit Rate per Hour: **\$22.06**

Drywall Taper - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate per Hour: \$38.78 Supplemental Benefit Rate per Hour: \$25.56

(Local #1974)

TILE LAYER - SETTER (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 4)

Tile Layer - Setter - First 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour:35% of Journeyperson's rate

Tile Layer - Setter - Second 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour 40% of Journeyperson's rate

Tile Layer - Setter - Third 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 50% of Journeyperson's rate

Tile Layer - Setter - Fourth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 55% of Journeyperson's rate

Tile Layer - Setter - Fifth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 60% of Journeyperson's rate

Tile Layer - Setter - Sixth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 65% of Journeyperson's rate

Tile Layer - Setter - Seventh 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 70% of Journeyperson's rate

Tile Layer - Setter - Eighth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 75% of Journeyperson's rate

Tile Layer - Setter - Ninth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour:80% of Journeyperson's rate

Tile Layer - Setter - Tenth 750 Hours

Effective Period: 7/1/2021 - 6/30/2022 Wage and Supplemental Rate Per Hour: 90% of Journeyperson's rate

(Local #7)

TIMBERPERSON (Ratio of Apprentice to Journeyperson: 1 to 1, 1 to 6)

Timberperson - First Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: \$21.42 Supplemental Rate Per Hour: \$35.22

Timberperson - Second Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: \$26.53 Supplemental Rate Per Hour: \$35.22

Timberperson - Third Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: \$34.18

Supplemental Rate Per Hour: \$35.22

Timberperson - Fourth Year

Effective Period: 7/1/2021 - 6/30/2022 Wage Rate Per Hour: \$41.84 Supplemental Rate Per Hour: \$35.22

(Local #1536)



Leonard A. Mancusi SENIOR ASSISTANT COMPTROLLER THE CITY OF NEW YORK OFFICE OF THE COMPTROLLER 1 CENTRE STREET ROOM 1120 NEW YORK, N.Y. 10007-2341

> ALAN G. HEVESI COMPTROLLER

MEMORANDUM

November 6, 2000

То

Agency Chief Contracting Officers

From:

Leonard A. Mancusi

Re: Security at Construction Sites

Prior to the enactment of Administrative Code §6-109, security guards on construction sites were not subject to prevailing wages. Security guards under the New York State labor law are covered under §230 which provides that prevailing wages are to be paid for security guards in existing buildings. §6-109 of the Administrative Code which was enacted in 1996 closed this loophole by including all security guards working pursuant to a city contract as a prevailing wage trade.

Although some construction contract boilerplate language has been amended to include §6-109, sub-contractors performing security services have advised us that they were not aware of this provision and, since traditionally, security guards were not a covered trade on construction sites, and they were not advised by a prime contractor that they would have to pay prevailing wages, they have not been doing so.

To avoid the possibility of issuing stop payments against prime contractors for the failure of their security service sub-contractors to pay prevailing wages, we suggest that you write to all your existing security guard sub-contractors and their primes and in the future, upon approval of a security guard sub-contractor, advise the contractors of their obligation to pay prevailing wages under §6-109 of the Administrative Code.

As always, your cooperation is appreciated.

LAM:er acco.security at sites



DIVISION OF INFRASTRUCTURE BUREAU OF DESIGN

VOLUME 2 OF 3

PROJECT ID: MIBBNC04A

CONSTRUCTION OF BEST MANAGEMENT PRACTICES **BMP NC- 6 BOUNDARY AVENUE AND** BMP NC-15 LACONIA AVENUE

TOGETHER WITH ALL WORK INCIDENTAL THERETO BOROUGH OF STATEN ISLAND **CITY OF NEW YORK**

Contractor

Dated , 20

APPROVED AS TO FORM CERTIFIED AS TO LEGAL AUTHORITY

Acting Corporation Counsel

Dated , 20



DIVISION OF INFRASTRUCTURE BUREAU OF DESIGN

VOLUME 2 OF 3

Contractor



DIVISION OF INFRASTRUCTURE BUREAU OF DESIGN

VOLUME 2 OF 3

PROJECT ID: MIBBNC04A

CONSTRUCTION OF BEST MANAGEMENT PRACTICES BMP NC- 6 BOUNDARY AVENUE AND BMP NC-15 LACONIA AVENUE

TOGETHER WITH ALL WORK INCIDENTAL THERETO BOROUGH OF STATEN ISLAND CITY OF NEW YORK

	Contractor		
Dated	, 20		
APPROVED AS TO FORM CERTIFIED AS TO LEGAL AUTHORITY		ARN	12.27.
	Acting Corporation Counsel		
Dated December 29	, 20	1	

2021



Department of Design and Construction

THE CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION

DIVISION OF INFRASTRUCTURE

30-30 THOMSON AVENUE LONG ISLAND CITY, NY, 11101 TEL: 718.391.1000 WEB: www.nyc.gov/ddc

TO BE FILLED IN BY THE BIDDER:

BIDDER'S NAME:

BID SECURITY (CIRCLE ONE): BID BOND / CERTIFIED CHECK

NUMBER OF ADDENDUMS RECEIVED AND ATTACHED TO BID:

___ ADDENDUMS

DDC CLIENT AGENCY: **THE DEPARTMENT OF ENVIRONMENTAL PROTECTION** *PREPARED BY*: **IN-HOUSE DESIGN** *DATE PREPARED*: **December 12, 2021**



VOLUME 3 OF 3

FOR FURNISHING ALL LABOR AND MATERIALS NECESSARY AND REQUIRED FOR:

PROJECT ID: MIBBNC04A

SCHEDULE A SPECIFICATIONS AND REVISIONS TO STANDARD SPECIFICATIONS

> CONSTRUCTION OF BEST MANAGEMENT PRACTICES BMP NC- 6 BOUNDARY AVENUE AND BMP NC-15 LACONIA AVENUE

TOGETHER WITH ALL WORK INCIDENTAL THERETO BOROUGH OF STATEN ISLAND CITY OF NEW YORK

PROJECT ID: MIBBNC04A

VOLUME 3 OF 3

TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGES		
SPECIFICATIONS AND STANDARDS OF NEW YORK CITY1 to 2				
SCHEDULE A	GENERAL CONDITIONS TO CONSTRUCTION CONTRACT	SA-1 to SA-12		
R – PAGES	REVISIONS TO STANDARD SPECIFICATIONS	R-1 to R-2		
C-PAGES	LIST OF DRAWINGS	C-1		
S – PAGES	SPECIAL PROVISIONS PAGES	S-1 to S-19		
SW – PAGES	SEWER AND WATER MAIN SPECIFICATIONS	SW-1 to SW-12		
EP7 – PAGES	GAS COST SHARING (EP-7) STANDARD SPECIFICATIONS	EP7-1 to EP7-29		
HAZ – PAGES	SPECIFICATIONS FOR HANDLING TRANSPORTATIC AND DISPOSAL OF NONHAZARDOUS AND POTENT	FICATIONS FOR HANDLING TRANSPORTATION DISPOSAL OF NONHAZARDOUS AND POTENTIALLY		
	HAZARDOUS CONTAMINATED MATERIALS	HAZ-1 TO HAZ-37		
BMP PAGES	BEST MANAGEMENT PRACTICE	BMP-1 TO BMP-183		
UI - PAGES	SECTION UI	UI-1 to UI-34		

PROJECT ID: MIBBNC04A

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SPECIFICATIONS AND STANDARDS OF NEW YORK CITY

a- The following New York City Department of Transportation (NYCDOT) reference documents are available online at: <u>http://www1.nyc.gov/site/ddc/resources/publications.page</u> and https://www1.nyc.gov/html/dot/html/about/dotlibrary.shtml#spec or for purchase between 9:00 A.M. and 3:00 P.M.

Bid Window, at 55 Water St., Ground Floor, NYC, N.Y. 10041. Tel. (212) 839-9435.

- 1. NYCDOT Standard Highway Specifications, August 1, 2015
- 2. NYC DOT Standard Details of Construction, July 2010 (Revised March 15, 2016)
- 3. NYCDOT Division of Street Lighting Specifications
- 4. NYCDOT Division of Street Lighting Standard Drawings
- 5. NYCDOT Standard Specifications for Traffic Signals
- 6. NYCDOT Standard Drawings for Traffic Signals

b- The 2010 Americans with Disabilities Act (ADA) Standards; available online at: https://www.ada.gov/regs2010/2010ADAStandards/2010ADAstandards.htm

c- The 2013 Public Rights-of-Way Accessibility Guidelines (PROWAG); available online at: https://www.access-board.gov/files/prowag/PROW-SUP-SNPRM-2013.pdf

d- The following reference documents for New York City Department of Environmental Protection (NYCDEP) are available online at: http://www1.nyc.gov/site/ddc/resources/publications.page or for pick up by calling (718) 391-1041 between 8:00 A.M. and 4:00 P.M. at 30-30 Thomson Avenue, 3rd Floor, Division of Infrastructure, Long Island City, N.Y. 11101.

- 1. NYCDEP Standard Sewer and Water Main Specifications, July 1, 2014
- 2. NYCDEP Instructions for Concrete Specifications, Jan. 92
- 3. NYCDEP General Specification 11-Concrete, November 1991
- 4. NYCDEP Sewer Design Standards, (September 2007) Revised January 2009
- 5. NYCDEP Water Main Standard Drawings, November 2010
- 6. Specifications for Trunk Main Work, July 2014
- 7. Standard Green Infrastructure Specifications September 1,2021
- 8. Water main work material specifications are available from the Department of Design and Construction, contact: Mr. Richard Jones, P.E., Tel. (718) 391-1417, E-mail: jonesri@ddc.nyc.gov

e- Standard Design and Guidelines for Green Infrastructure Practices, latest version, available only online at: https://www1.nyc.gov/assets/dep/downloads/pdf/water/stormwater/green-infrastructure/green-infrastructure-standard-designs.pdf

f- Standard Specifications and Drawings for New York City Fire Department Communications facilities of New York City are available online at <u>https://www1.nyc.gov/assets/fdny/downloads/pdf/about/fdny-plant-operations-</u> <u>standard-drawings-specifications.pdf</u> or for pick up from the FDNY Facilities Management Bureau, Plant Operations Engineering, 316 Sgt. Beers Avenue Cluster 1 Box 16, Fort Totten, N.Y. 11359. Contact: Mr. Ed Durkin, Tel. (718) 281-3933

g- Tree Planting Standards of the City of New York Parks & Recreation are available at the following Department of Parks & Recreation website: <u>http://www.nycgovparks.org/pagefiles/53/Tree-Planting-Standards.pdf</u>

SPECIFICATIONS AND STANDARDS OF PRIVATE UTILITIES

Private Utility (CET) Work reference document "CET SPECIFICATIONS AND SKETCHES dated November 2010" is available for pick up by calling (718) 391-2085 for appointment between 8:30 A.M. and 4:00 P.M. at 30-30 Thomson Avenue, First Floor Bid Procurement Room, L.I.C., N.Y. 11101.

SCHEDULE A

(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT (INCLUDING GENERAL CONDITIONS RELATED TO ARTICLE 22 – INSURANCE) PART I. REQUIRED INFORMATION

INFORMATION FOR BIDDERS SECTION 26 BID SECURITY	Required provided the TOTAL BID PRICE set forth on the Bid Form is \$1,000,000. or more.	
	¢ 1,000,000. Of more.	
The Contractor shall obtain a bid security in the amount indicated to the right.	Certified Check: 2% of Bid Amount or Bond: 10% of Bid Amount	
INFORMATION FOR BIDDERS SECTION 26 PERFORMANCE AND PAYMENT BONDS	Required for contracts in the amount of \$1,000,000 or more.	
The Contractor shall obtain performance and payment bonds in the amount indicated to the right.	Performance Security and Payment Security shall each be in an amount equal to 100% of the Contract Price.	
INFORMATION FOR BIDDERS		
DEPARTMENT OF DESIGN AND CONSTRUCTION SAFETY REQUIREMENTS	Project Safety Representative	
The Contractor shall provide the safety personnel as indicated to the right.	 Dedicated, full-time Project Safety Representative 	
CONTRACT ARTICLE 14		
DATE FOR SUBSTANTIAL COMPLETION		
The Contractor shall substantially complete the Work in the number of calendar days indicated to the right.	See Page SA-4	
CONTRACT ARTICLE 15		
LIQUIDATED DAMAGES		
If the Contractor fails to substantially complete the Work within the time fixed for substantial completion plus authorized time extensions or if the Contractor , in the sole determination of the Commissioner , has abandoned the Work , the Contractor shall pay to the City the amount indicated to the right.	<u>\$ 4000.00</u> for each consecutive calendar day over substantial completion time	
CONTRACT ARTICLE 17.		
SUB-CONTRACTOR	Not to exceed 25 % of the Contract	
The Contractor shall not make subcontracts totaling an amount more than the percentage of the total Contract price indicated to the right.	Not to exceed <u>35</u> % of the Contract price	

	-
<u>CONTRACT ARTICLE 21.</u> <u>RETAINAGE</u>	5 % of the value of the Work
The Commissioner shall deduct and retain until the substantial completion of the Work the percent value of the Work indicated to the right.	
<u>CONTRACT ARTICLE 22.</u> (Per Directions Below)	See pages SA-5 through SA-12
CONTRACT ARTICLE 24. DEPOSIT GUARANTEE	
As security for the faithful performance of its obligations, the Contractor , upon filing its requisition for payment on Substantial Completion , shall deposit with the Commissioner a sum equal to the percentage of the Contract price indicated to the right.	1% of Contract price
CONTRACT ARTICLE 24. PERIOD OF GUARANTEE	Eighteen (18) Months, excluding Trees
Periods of maintenance and guarantee other than the period set forth in Article 24.1 are indicated to the right.	Twenty-four (24) Months for Tree Planting
CONTRACT ARTICLE 75. COMPENSATION TO BE PAID TO CONTRACTOR The City shall pay and the Contractor shall accept in full consideration for the performance of the Contract, subject to additions and deductions as	Amount for which the Contract was Awarded:
provided herein, the total sum shown in the column to the right , being the amount at which the Contract was awarded to the Contractor at a public letting thereof, based upon the Contractor's bid for the Contract .	Dollars (\$)
<u>CONTRACT ARTICLE 79.</u> <u>PARTICIPATION BY MINORITY-OWNED AND</u> <u>WOMEN-OWNED BUSINESS ENTERPRISES IN CITY</u> <u>PROCUREMENT</u>	See M/WBE Utilization Plan in Passport

	Project ID.: WIDDINC04A
STANDARD HIGHWAY SPECIFICATIONS SECTION 6.40LIQUIDATED DAMAGES FOR ENGINEER'S FIELD OFFICEIf the Contractor fails to satisfactorily provide the field office and all equipment specified in Section 6.40 - Engineer's Field Office, and/or if a cited deficiency exceed seventy two (72) hours after notice from the Engineer in writing, or is permitted	\$ <u>500.00</u> for each calendar day of deficiency
to recur, liquidated damages will be assessed in the amount specified herein for each subsequent calendar day or part thereof that a cited deficiency resulting in nonpayment, as described in Section 6.40.5 , is not corrected.	
STANDARD HIGHWAY SPECIFICATIONS SECTION 6.70 LIQUIDATED DAMAGES FOR MAINTENANCE AND	\$ <u>250.00</u> for each instance of failure to comply with the Maintenance and Protection of Traffic requirements within three (3) hours after written notice from the Engineer.
PROTECTION OF TRAFFIC	\$ <u>500.00</u> for each and every hour of failing to open the entire width of roadway to traffic the morning following a night/weekend work operation.
STANDARD HIGHWAY SPECIFICATIONS SECTION 7.13 LIQUIDATED DAMAGES FOR MAINTENANCE OF SITE	
If the Contractor fails to comply, within three (3) consecutive hours after written notice from the Engineer, with the requirements of Section 7.13 - Maintenance of Site , the Contractor shall pay to the City of New York, until such notice has been complied with or rescinded, the sum specified above per calendar day, for each instance of such failure, as liquidated damages and not as a penalty, for such default.	\$ <u>400.00</u> for each calendar day, for each occurrence

Date for Substantial Completion (Reference: Article 14)

The Contractor shall substantially complete the Work within the Final Contract Duration determined in accordance with the terms and conditions set forth herein.

The Base Contract Duration for this project is <u>545</u> consecutive calendar days ("ccds").

The Final Contract Duration shall be the Base Contract Duration when a check mark is indicated before the word "NO", below, and shall be the Base Contract Duration adjusted by the table set forth below when a check mark is indicated before the word "YES", below.

<u>_</u>√ YES ____NO

When the Final Contract Duration is indicated above to be adjusted by the table below, the table may increase the Base Contract Duration depending on the date of scheduled substantial completion to avoid a scheduled substantial completion of the Work during the winter months. The date of scheduled substantial completion shall be determined by adding the Base Contract Duration to the date specified to commence work in the written Notice to Proceed. The Final Contract Duration shall then be determined as follows:

- (a) Find the row that corresponds to the month of substantial completion based on the Base Contract Duration added to the date specified to commence work in the written Notice to Proceed.
- (b) Find the number of days to be added to the Base Contract Duration in the table below. Add that number of days to the Base Contract Duration to obtain the Final Contract Duration in consecutive calendar days.

Month of Substantial Completion based on the Base Contract Duration	Number of Days of adjustment
January	150
February	120
March	90
April	60
Мау	30
June	0
July	0
August	0
September	0
October	0
November – December 15	0
December 16 – December 31	180

In addition, should Item No. 9.30, "Storm Water Pollution Prevention," exist in the Contract and the required Storm Water Pollution Prevention Plan (SWPPP) does not conform to NYSDEC's recommended Standards, an additional 60 ccd shall be added to the above Final Contract Duration.

(GENERAL CONDITIONS RELATING TO ARTICLE 22 - INSURANCE)

PART II. TYPES OF INSURANCE, MINIMUM LIMITS AND SPECIAL CONDITIONS

<u>Note</u>: All certificate(s) of insurance submitted pursuant to Contract Article 22.3.3 must be accompanied by a Certification by Broker consistent with Part III below and include the following information:

- For each insurance policy, the name and NAIC number of issuing company, number of policy, and effective dates;
- Policy limits consistent with the requirements listed below;
- Additional insureds or loss payees consistent with the requirements listed below; and
- The number assigned to the Contract by the City (in the "Description of Operations" field).

Insurance indicated by a blackened box (\blacksquare) or by X in a \square to left will be required under this contract

Types of Insurance (per Article 22 in its entirety, including listed paragraph)	Minimum Limits and Special Conditions
	The minimum limits shall be \$ <u>3,000,000</u> per occurrence and \$ <u>6,000,000</u> per project aggregate applicable to this Contract .
Commercial General Liability Art. 22.1.1	 Additional Insureds: 1. City of New York, including its officials and employees, with coverage at least as broad as ISO Form CG 20 10 and CG 20 37, 2. All person(s) or organization(s), if any, that Article 22.1.1(b) of the Contract requires to be named as Additional Insured(s), with coverage at least as broad as ISO Form CG 20 26. The Additional Insured endorsement shall either specify the entity's name, if known, or the entity's title (e.g., Project Manager), 3. National Grid.

		- -
		Workers' Compensation, Employers' Liability, and Disability Benefits Insurance: Statutory per New York State law without regard to jurisdiction.
 Workers' Compensation Disability Benefits Insurance Employers' Liability Jones Act U.S. Longshoremen's and Harb Compensation Act 	Art. 22.1.2 Art. 22.1.2 Art. 22.1.2 Art. 22.1.3 For Workers Art. 22.1.3	 Note: The following forms are acceptable: (1) New York State Workers' Compensation Board Form No. C-105.2, (2) State Insurance Fund Form No. U-26.3, (3) New York State Workers' Compensation Board Form No. DB-120.1 and (4) Request for WC/DB Exemption Form No. CE-200. The City will not accept an ACORD form as proof of Workers' Compensation or Disability Insurance. Jones Act and U.S. Longshoremen's and Harbor Workers' Compensation Act: Statutory per U.S. Law. Additional Requirements:
□ Builders' Risk	Art. 22.1.4	 Required: 100% of total bid amount Required: 100 % of total bid amount for Item(s): Contractor the Named Insured; the City both an Additional Insured and one of the loss payees as its interests may appear. If the Work does not involve construction of a new building or gut renovation work, the Contractor may provide an installation floater in lieu of Builders Risk insurance. Note: Builders Risk Insurance may terminate upon Substantial Completion of the Work in its entirety.

	1
Commercial Auto Liability Art. 22.1.5	 \$ 2,000,000 per accident combined single limit If vehicles are used for transporting hazardous materials, the Contractor shall provide pollution liability broadened coverage for covered vehicles (endorsement CA 99 48) as well as proof of MCS 90 Additional Insureds: 1. City of New York, including its officials and employees
□Contractors Pollution Liability Art. 22.1.6	 \$<u>5,000,000</u> per occurrence \$<u>5,000,000</u> aggregate Additional Insureds: 1. City of New York, including its officials and employees, and 2. 3.
 Marine Protection and Indemnity Art. 22.1.7(a) 	 \$each occurrence \$aggregate Additional Insureds: 1. City of New York, including its officials and employees, and 2
☐ Hull and Machinery Insurance Art. 22.1.7(b)	 \$ per occurrence \$ aggregate Additional Insureds: 1. City of New York, including its officials and employees, and 2 3

Project ID.: MIBBNC04A

☐ Marine Pollution Liability	Art. 22.1.7(c)	<pre>\$_1,000,000_ per occurrence \$_1,000,000_ aggregate Additional Insureds: 1. City of New York, including its officials and employees, and 2. 3.</pre>
[OTHER]	Art. 22.1.8	
 Railroad Protection Liability Police (ISO-RIMA or equivalent form) appermittor covering the work to be the designated site and affording damages arising out of bodily inju- physical damage to or destruction including damage to the Insured's and conforming to the following: Policy Endorsement CG 28 31 - Exclusion Amendment is require endorsed onto the policy when environmental-related work and exposures exist. Indicate the Name and address Contractor to perform the work, and the name of the railroad pro- the work is being performed and Permit. Evidence of Railroad Protective Insurance, must be provided in Original Policy. A detailed Insur (ACORD or Manuscript Form) v accepted pending issuance of the Policy, which must be provided of the Binder Approval. 	 pproved by performed at protection for ury or death, of property, s own property Pollution ed to be l/or of the the Contract # operty where d the Agency Liability the form of the <u>rance Binder</u> <u>vill be</u> <u>he Original</u> 	 \$ 2,000,000 per occurrence \$ 6,000,000 annual aggregate Named Insureds: 1. New York City Transit Authority (NYCTA), the Manhattan and Bronx Surface Transit Operation Authority (MaBSTOA), the Staten Island Rapid Transit Operation Authority (SIRTOA), MTA Capital Construction Co., the Metropolitan Transportation Authority (MTA) including its subsidiaries and affiliates, and the City of New York (as Owner) and all other indemnified parties.

[OTHER] Ar			
Professional Liability			
A. The Contractor's Professional Engineer shall maintain and submit evidence of Professional Liability Insurance in the minimum amount of \$1,000,000 per claim. The policy or policies shall include an endorsement to cover the liability assumed by the Contractor under this Contract arising out of the negligent performance of professional services or caused by an error, omission or negligent act of the Contractor's Professional Engineer or anyone employed by the Contractor's Professional Engineer.			
B. Claims-made policies will be accepted for Professional Liability Insurance. All such policies shall have an extended reporting period option or automatic coverage of not less than two (2) years. If available as an option, the Contractor's Professional Engineer shall purchase extended reporting period coverage effective on cancellation of termination of such insurance unless a new policy is secured with a retroactive date, including at least the last policy year.			
OTHER] Art. 22.1.8 Fire insurance, extended coverage			
■Engineer's Field Office	vandalism, malicious mischief and burglary, and theft insurance coverage in		
Section 6.40, Standard Highway Specifications	the amount of <u>\$40,000</u>		
[OTHER] Art. 22.1.8			
The Following Additional Insurance Must Be Provided:			
Umbrella/Excess Liability Insurance - The Contractor shall provide Umbrella/Excess Liability Insurance in the minimum amount of \$10,000,000 per Occurrence and \$10,000,000 in Aggregate. The policy terms and condition should be at least as broad as the underlying policies. The underlying policies should comply with the insurance provision as outlined by the contract. Defense cost should be in addition to the limit of liability. The City of New York, including its officials and employees, should be included as additional insured as respects to the noted project.			

Per **Article 22.2.5** of **the Standard Construction Contract**: The Contractor may satisfy its insurance obligations as defined in this Schedule A through primary policies or a combination of primary and excess/umbrella policies, so long as all policies provide the scope of coverage required herein

SCHEDULE A <u>(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)</u> <u>(GENERAL CONDITIONS RELATING TO ARTICLE 22 – INSURANCE)</u>

PART III. CERTIFICATES OF INSURANCE

All certificates of insurance (except certificates of insurance solely evidencing Workers' Compensation Insurance, Employer's Liability Insurance, and/or Disability Benefits Insurance) must be accompanied by one of the following:

(1) the Certification by Insurance Broker or Agent on the following page setting forth the required information and signatures;

-- OR --

(2) copies of all policies as certified by an authorized representative of the issuing insurance carrier that are referenced in such certificate of insurance. If any policy is not available at the time of submission, certified binders may be submitted until such time as the policy is available, at which time a certified copy of the policy shall be submitted.

CITY OF NEW YORK

CERTIFICATION BY INSURANCE BROKER OR AGENT

The undersigned insurance broker represents to the City of New York that the attached Certificate of Insurance is accurate in all material respects.

[Name of broker or agent (typewritten)]

[Address of broker or agent (typewritten)]

[Email address of broker or agent (typewritten)]

[Phone number/Fax number of broker or agent (typewritten)]

[Signature of authorized official, broker, or agent]

[Name and title of authorized official, broker, or agent (typewritten)]

State of)

) ss.: County of)

Sworn to before me this day of , 20

NOTARY PUBLIC FOR THE STATE OF

SCHEDULE A

(GENERAL CONDITIONS TO CONSTRUCTION CONTRACT)

PART IV. ADDRESS OF COMMISSIONER

Wherever reference is made in Article 7 or Article 22 to documents to be sent to the **Commissioner** (e.g., notices, filings, or submissions), such documents shall be sent to the address set forth below or, in the absence of such address, to the **Commissioner's** address as provided elsewhere in this **Contract**.

DDC Director, Insurance Risk Manager

<u> 30 – 30 Thomson Avenue, 4th Floor (IDCNY Building)</u>

Long Island City, NY 11101

(NO FURTHER TEXT ON THIS PAGE)

R - PAGES

REVISIONS TO STANDARD SPECIFICATIONS

NOTICE

The Specification Bulletin(s) ("SB(s)") referenced in this Section (R-Pages) may consist of revisions to the following Standard Specifications:

- New York City Department of Transportation ("NYC DOT") Standard Highway Specifications, dated 8/1/2015;
- New York City Department of Environmental Protection ("NYC DEP") Standard Sewer and Water Main Specifications, dated 7/1/2014; and
- NYC DEP Specifications for Trunk Main Work, dated 7/2014.

The SB(s) modify and supersede portions of the applicable Standard Specifications. The provisions contained in this Contract's I-Pages, S-Pages and SW-Pages may further modify the applicable Standard Specifications.

The following SB(s) are included as part of this contract:

- SB 16-001 REVISIONS TO THE NYC DOT STANDARD HIGHWAY SPECIFICATIONS.
- SB 16-002 REVISIONS TO THE NYC DEP STANDARD SEWER AND WATER MAIN SPECIFICATIONS.
- SB 17-001 UV CURED-IN-PLACE-PIPE (CIPP) LINING METHOD
- SB 17-002 SUPERSEDED BY SB 18-001
- SB 17-003 ENGINEERS FIELD OFFICE
- SB 17-004 FIRE DEPARTMENT FACILITIES
- SB 17-005 DIGITAL PHOTOGRAPHS
- SB 17-006 RECORDS OF SUBSURFACE STRUCTURES
- SB 17-007 MOBILIZATION
- SB 17-008 QUALIFICATION CARDS
- SB 17-009 SALVAGEABLE MATERIALS
- SB 17-010 MILLED ASPHALTIC CONCRETE AGGREGATE
- SB 17-011 SUPERSEDED BY SB 21-004

- SB 17-012 TEMPORARY HOUSE CONNECTION MATERIAL
- SB 18-001 RODENT AND WATERBUG PEST CONTROL
- SB 18-002 COLOR SURFACE TREATMENT FOR PAVEMENTS
- SB 18-003 WATER AND SEWER GENERAL PROVISIONS
- SB 18-004 CUTTING DUCTILE IRON PIPE
- SB 18-005 STOCKPILES
- SB 19-001 RESTORATION OF PAVEMENT SURFACE
- SB 19-002 SCHEDULE OF OPERATIONS
- SB 21-001 SALVAGEABLE MATERIALS
- SB 21-002 HYDRANTS
- SB 21-003 BACK UP ALARMS, MAINTENANCE OF SITE
- SB 21-004 DETECTABLE WARNING UNITS

The SB(s) are available online at:

http://www1.nyc.gov/site/ddc/resources/specification-bulletins.page or for pickup between 8:00 AM and 4:00 PM at 30-30 Thomson Avenue, 3rd Floor, Division of Infrastructure, Long Island City, NY 11101. Contacts:

- Mr. Richard Jones, (718) 391-1417
- Mr. Salman Macktoom, (718) 391-2041

(NO FURTHER TEXT THIS PAGE)

MIBBNC04 A

LIST OF DRAWINGS			
SHEET NO.	DRAWINGS NO.	DESCRIPTION	
1	T1	TITLE SHEET /TABLE OF CONTENTS	
2	G-1	BMP COVER SHEET	
3	G-2	BMP DRAWING INDEX, LEGEND, AND NOTES	
4-13	C-0 THRU C-9	BMP CIVIL DRAWINGS	
14-22	S-1 THRU S-9	BMP STRUCTURAL DRAWINGS	
23-24	SD-1 THRU SD-2	BMP TYPICAL DRAWINGS	
25-39	SD-C-1 THRU SD-C-15	BMP STANDARD CIVIL DETAILS	
40-41	SD-ES-1 THRU SD-ES-2	BMP STANDARD EROSION AND SEDIMENT CONTROL DETAILS	
42	SD-L-1	BMP STANDARD LANDSCAPE DETAILS	
43-44	SD-SF-1 THRU SD-SF-2	BMP STANDARD STONE FACING DETAILS	
45-46	MPT-1 THRU MPT-2	MAINTENANCE AND PROTECTION OF TRAFFIC	
	U-1 THRU U-6	SECTION UI (FOR REFERENCE ONLY)	
	R1 THRU R25	RECORD DRAWINGS (FOR REFERENCE ONLY)	

GENERAL AND SPECIAL PROVISIONS:

(A) GENERAL PROVISIONS

S - PAGES

- (B) HIGHWAY PROJECT SPECIFIC PROVISIONS
- (C) SEWER & WATER MAIN PROJECT SPECIFIC PROVISIONS
- (D) GREEN INFRASTRUCTURE PROVISIONS

NOTICE

THE PAGES CONTAINED HEREIN (S-PAGES) ARE GENERAL AND SPECIAL PROVISIONS THAT WILL APPLY TO AND BECOME PART OF THE CONTRACT.

(NO TEXT ON THIS PAGE)

TABLE OF CONTENTS(A) GENERAL PROVISIONS

ARTICLE	DESCRIPTION	PAGE NO.
А	LINES AND GRADES	S-1
В	SPECIFIC TRAFFIC STIPULATIONS	S-1
С	HOLIDAYS CONSTRUCTION EMBARGO	S-1
D	CONTRACT ITEMS THAT INCLUDE BACKFILL AS PART OF THEIR WORK	S-2
E	ACCELERATED PROJECT SCHEDULE AND COMBINATION OF STAGES	S-2
F	DISPOSAL OF EXCESS EXCAVATED MATERIAL	S-2
G	NO EXTENSIONS OF TIME FOR WINTER SHUT-DOWN	S-2
н	PRIVATE UTILITY HARDWARE ADJUSTMENTS	S-2
T	SURVEY MONUMENTS	S-2
J	RESTORATION OF ADJACENT AREAS	S-2
К	FLAGGERS	S-2
L	FUEL COST	S-3
Μ	NYCDPR CONSTRUCTION PERMITS AND OTHER REQUIREMEN	TS S-3
Ν	START OF CONTRACT WORK	S-4
0	VIBRATORY ROLLERS	S-4
Р	N.Y.C. TRANSIT INSURANCE	S-4
Q	STANDARD WORKING HOURS	S-7
R	TREE BARRIERS	S-7
S	UTILITIES	S-7
т	HOUSE CONNECTIONS	S-7
U	VICTAULIC STYLE 77 COUPLING	S-7
V	STREET LIGHT AND TRAFFIC SIGNAL	S-7

ARTICLE	DESCRIPTION	PAGE NO.	
W	SAW CUT	S-7	
Х	PRE-CONSTRUCTION STAGE	S-7	
Y	EXISTING SEWERS. WATER AND APPURTENANCE	S-8	
Z	RECONNECTING EXISTING SEWERS TO NEW MANHOLES	S-8	
AA	VIBRATION MONITORING	S-8	
AB	CITY ASSETS	S-8	
AC	"AS-BUILT" DRAWINGS FOR WATER MAINS AND APPURTENANCES 24-INCHES (600-MM.) AND LARGER	S-8	
AD	SIDEWALK PEDESTRIAN RAMPS STANDARD DRAWING	S-9	
AE	NO ADDITIONAL PAYMENT	S-10	
AF	SHEETING AND EXCAVATION AT TRANSIT FACILITIES	S-10	
AG	PAYMENT FOR PAVEMENT MARKINGS	S-10	
AH	ARCHAEOLOGICAL DISCOVERIES	S-10	
AI	USE OF CITY WATER	S-11	
AJ	PUBLIC DISSEMINATION OF INFORMATION	S-11	
AK	PRICES TO INCLUDE	S-12	
ATTACHMENT	1 PAVEMENT MARKINGS CONVERSION TABLE	S-13	
ATTACHMENT 2	2 TYPICAL PAVEMENT MARKINGS	S-16	
(B) HIGHWAY PROJECT SPECIFIC PROVISIONS			
ARTICLE	DESCRIPTION	PAGE NO.	
	(NO TEXT)	S-17	

(C) SEWER & WATER MAIN PROJECT SPECIFIC PROVISIONS

S-18

(NO TEXT)

(D) GREEN INFRASTRUCTURE PROVISIONS

(NO TEXT)

S-19

(NO FURTHER TEXT ON THIS PAGE)

(A) GENERAL PROVISIONS

A. <u>LINES AND GRADES</u>. The Contractor must furnish lines and grades in accordance with Section 1.06.27 of the NYCDOT Standard Highway Specifications, except that survey controls established for this project may no longer exist and the Contractor will be required to re-establish the survey control information using official Borough Survey Control Monuments and Bench Marks, where they exist. The Contractor must check with Topographic Section of the Borough President's Office as to the reliability and accuracy of the data to be used for lines and grades.

B. <u>SPECIFIC TRAFFIC STIPULATIONS</u>. Under this contract, the Contractor must perform the work in strict accordance with the requirements of Section 6.70 in the Standard Highway Specifications, specific traffic stipulations as called for on the plans, Office of Construction Mitigation and Coordination (OCMC) Traffic Stipulations attached to the end of these Special Provisions, and the directions of the Engineer. In case of a conflict, the Engineer's decision will be final.

In addition, the cost of compliance with requirements of the OCMC Traffic Stipulations, unless otherwise provided for, will be deemed included in the prices bid for all scheduled items.

C. <u>HOLIDAY CONSTRUCTION EMBARGO</u>. A special Holiday Construction Embargo will be in effect on the Friday of the week preceding Thanksgiving Day week from 6:00 AM to 11:59 PM and again from the Monday of Thanksgiving Day week from 6:00 AM through January 2, at 11:59 PM. Roadway and sidewalk construction activities will be restricted during the embargo period on the streets listed below*.

Any permits issued prior to the date of this notice, for work during this embargo period on the streets listed below* which do not already have the permit stipulation "410" are hereby suspended for the period noted above. All permittees must comply with this embargo unless a special waiver is granted by OCMC. Waiver requests must be filed at least thirteen days before Thanksgiving Day, in the Permit Office by filing a "Request for Roadway/Sidewalk Permits During "Embargo Periods" and submitting supporting documentation. Waiver requests should only be submitted for critical reasons for a specific project. If a waiver is granted, the applicant will be notified so they can apply for the approved permits. Waivers <u>are not</u> required for ongoing Building Construction Activity Permits which already include the "410" permit stipulation. Waiver request forms may be obtained at any Permit Office or on the Department of Transportation's website at:

http://www.nyc.gov/html/dot/downloads/pdf/holidayembapp.pdf

Prior to this embargo period all necessary measures must be taken so that all roadways and sidewalks are in proper condition to allow for the expeditious and safe movement of vehicular, bicycle and pedestrian traffic. Tool carts, cable reels, containers, and material stored on roadways must be removed during the embargo period.

The opening of utility access covers is prohibited on any of the streets noted below** between the hours of 6:00 AM and midnight unless the utility or Contractor files for an Emergency Authorization Number as required by Section 2-07 of the Department of Transportation's Highway Rules. The planned opening of utility access covers may occur during the hours of 12:01 AM and 5:59 AM where no authorization number is required.

Temporary restoration of the streets and sidewalks and removal thereof, if required for the Holiday Embargo period, will be paid for under the appropriate scheduled items.

No extension of time due to the shutdown period will be granted to the Contractor for completion of the work.

* Please note that this embargo only applies to NYCDOT construction permits.

** List of street and maps of the affected locations are available by borough on the Department of Transportation's website at:

http://www.nyc.gov/html/dot/html/motorist/trafalrt.shtml

D. <u>CONTRACT ITEMS THAT INCLUDE BACKFILL AS A PART OF THEIR WORK</u>. The following will pertain to all contract items that have backfill as a part of their work: Backfilling will comply with Subsection 4.11.3 of the Standard Specifications and no additional payment will be made for any Highway or Street Lighting work item requiring Contractor to furnish additional fill material to meet these requirements when backfilling.

E. <u>ACCELERATED PROJECT SCHEDULE AND COMBINATION OF STAGES</u>. Contractor will plan and/or stage his/her work schedule using all hours/days available. Contractor is advised that all applicable unit prices will include, for the purpose of this contract, all overtime costs, premium time costs, shift differentials required to complete construction within the specified "Time(s) of Completion" stipulated in this contract.

Contractor will be permitted to accelerate this project, to combine stages and/or work sequences. Any such changes will be shown in the construction schedule, to be furnished in accordance with the General Provisions of the Standard Specifications.

F. <u>DISPOSAL OF EXCESS EXCAVATED MATERIAL</u>. All excess excavated material, with the exception of contaminated material, will become the property of the Contractor and will be properly disposed of away from the site, at the Contractor's expense. Contaminated material will be disposed of separately in accordance with contract requirements.

G. <u>NO EXTENSION OF TIME FOR WINTER SHUT-DOWN</u>. Where the Contractor's approved work schedule for installing sidewalk, curb, roadway base and/or pavement falls within the winter period of December 1st through April 1st, the Contractor will <u>NOT</u> be granted an extension of time for completion of this contract due to the winter shut-down period, unless otherwise provided in Schedule A.

H. <u>PRIVATE UTILITY HARDWARE ADJUSTMENTS.</u> will be performed by the owning utility company or its agent, at its expense. The Contractor must notify the utility company 72 hours prior to start of work at each location where its hardware requires adjustment.

I. <u>SURVEY MONUMENTS</u>. When working in the vicinity of survey monument the Contractor will hand excavate per Item 8.02 AB-S, 8.02JA, 8.02JB, 8.02 A and 8.02 B (as applicable), at City Survey Monuments, for a distance of five (5) feet around each monument, as directed by the Engineer.

J. <u>RESTORATION OF ADJACENT AREAS</u>. The Contractor will be required to remove all form work. In planting strip areas, the Contractor will be required to restore areas damaged as a result of the Contractor's operations, to the satisfaction of the Engineer, with sod. The Contractor will also, as directed by the Engineer, make safe adjacent areas to the Contractor's work, such as: restoring missing or damaged pavement markings that were removed or damaged as a result of the Contractor's operations (as per requirements of Section 6.44 in the Standard Specifications); resetting granite blocks in tree pits; and, applying binder mixture (Item 4.02 CA or as applicable) where badly broken sidewalk or curb may create a dangerous condition just outside his area of operation, where and when directed by the Engineer.

All restoration work must be performed to the satisfaction of the Engineer.

K. <u>FLAGGERS.</u> The Contractor is notified that wherever the Item No. "6.52" and words "flagger", "flagperson" and "flagman" are used in the contract documents and drawings it will mean the Item No. "6.52 CG" and the words "Crossing Guard", respectively. The Contractor is advised that until the Comptroller of the City of New York sets a prevailing wage rate for crossing guards, there are no prevailing wage rates for crossing guards.

For projects that require compliance with the Davis-Bacon Act, wherever the Item No. "6.52" and words "flagger", "flagperson" and "flagman" are used in the contract documents and drawings it will mean the Item No. "6.52 FED" and the words "Uniformed Flagperson", respectively.

FUEL COST. The Contractor is notified that the fuel cost per gallon used in the formula L. under Sub-Article 26.2.8 of the Standard Construction Contract for Extra Work will be derived from the fuel price index for the United States East Coast published weekly by the United States Energy Administration Information ("USEIA"), and available on its website at http://www.eia.gov/petroleum/gasdiesel/. The USEIA-published cost per gallon for the applicable fuel on the East Coast for the week in which the first day of each calendar quarter during the contract term occurs (i.e., January 1st, April 1st, July 1st and September 1st) will be used in the reimbursement formula for all Extra Work invoiced that was performed during that calendar guarter. Should the USEIA stop publishing this fuel price index, the fuel cost per gallon will be determined by reference to a substitute index to be agreed upon by the Contractor and the City.

M. <u>NYCDPR CONSTRUCTION PERMITS AND OTHER REQUIREMENTS</u>.

1. At least thirty (30) days prior to the upcoming start of construction at or near the New York City Department of Parks and Recreation (NYCDPR) land, the Contractor is required to issue a notice to NYCDPR about the start of construction activity. At least 30 days in advance of the Order to Work Date, the Contractor must notify the New York City Department of Parks and Recreation (NYCDPR) of the upcoming start of construction by emailing interagency@parks.nyc.gov.

2. Parks Construction Permits are required for all work on Parkland. Construction Permits may also be required for work on sidewalks adjacent to Parks properties or other areas maintained by NYCDPR such as Greenstreets depending on the scope of work. It is the Contractor's responsibility to coordinate with Parks via email at interagency@parks.nyc.gov to establish whether Construction Permits are required for the contract scope of work.

3. The Contractor will not be permitted to store, stage, stockpile, barricade, lay down construction materials or equipment, or otherwise impede access to Parkland, Greenstreets, or sidewalks in the right-of-way fronting Park properties unless such permission is granted by NYCDPR via issuance of a Parks Construction Permit.

4. The Contractor must obtain the necessary Parks Construction Permit from NYCDPR prior to the start of work on Parkland or areas under Parks' jurisdiction. The Construction Permit application is found online at https://www.nycgovparks.org/permits/construction.

5. When no Construction Permit is required, the contactor must notify Parks at interagency@parks.nyc.gov at least one week in advance of any construction adjacent to Greenstreets or in the right-of-way fronting Parks properties to allow for coordination as needed.

6. The Contractor is responsible for the protection of any Greenstreets, sidewalks, and other landscape features under NYCDPR jurisdiction that are adjacent to or enclosed by the construction area, including hardscape, landscape, shrubs, and trees. Any areas and features disturbed or damaged during construction activity are the responsibility of the Contractor to restore and repair.

7. Many NYCDPR properties are indicated on the publicly accessible online mapping resource of the New York City Department of Information Technology and Telecommunications (DOITT) at http://maps.nyc.gov/doitt/nycitymap/. However, the map is not exhaustive, and Contractors should confirm Parks properties in the vicinity of their work with NYCDPR.

8. The contractor must take necessary precautions to prevent interference with or damage to utilities or other facilities during construction. The cost of all work connected with maintaining and protecting utilities affected by the work be borne by the Contractor and the cost will be deemed included in the price bid for the various items in the contract.

9. In the event the Contractor damages an existing utility or interrupts utility service, the Contractor will immediately notify its owner and the Engineer and must commence repair/replacement work as instructed by the Engineer.

10. In the event the Contractor causes an interruption in utility service, the Contractor will immediately arrange for service to be restored and may not cease the repair work until service is restored. The Contractor will not continue work until the service is restored, unless otherwise directed by the Engineer. All corrective utility work will be acceptable to the engineer and the subject utility owner.

11. If any utility service or connection of unknown ownership is encountered during construction which appears to enter or serve Parkland, Contractor must contact Parks at <u>interagency@parks.nyc.gov</u> to inquire if Parks is the owner of such utility.

N. <u>START OF CONTRACT WORK</u>. The Contractor is notified that a Notice To Proceed (NTP) date will be issued for work to commence within 21 to 30 Days of Contract Registration.

O. <u>VIBRATORY ROLLERS</u>. For Federal Highway Administration (FHWA) project the use of vibratory rollers is prohibited within the project limits.

[ARTICLE "P" IS ONLY APPLICABLE WHEN WORKING NEAR OR AT MTA FACILITIES]

P. <u>N.Y.C. TRANSIT INSURANCE</u>. The Contractor (Permittee) must indemnify and save harmless the City of New York and the New York City Transit (Permittor) in accordance with the following "Insurance Requirements" and proof that the necessary insurance is in effect will be required before work can commence:

NYCT "OUTSIDE CONTRACT" INSURANCE REQUIREMENTS

1. The Permittee at its sole cost and expense will carry or cause to carried and will maintain at all times during the period of performance under this Agreement policies of insurance as herein set forth below:

(a) <u>Workers' Compensation Insurance</u> (including Employer's Liability Insurance) with limits as specified in Schedule A, which limit may be met by a combination of primary and excess insurance meeting the statutory limits of New York State. The policy will be endorsed to include Longshoreman's and Harbor Workers' Compensation Act/Maritime Coverage Endorsement and/or Jones Act Endorsement when applicable.

(b) <u>Commercial General Liability Insurance</u> (I.S.O. 2001 Form or equivalent) approved by Permittor in the Permittee's name with limits of liability as specified in Schedule A for each occurrence on a combined single limit basis for injuries to persons (including death) and damages to property. The limits may be provided in the form of a primary policy or combination of primary and umbrella/excess policy. When the minimum contract amounts can only be met when applying the umbrella/excess policy; the Umbrella/Excess Policy must follow form of the underlying policy and be extended to "drop down" to become primary in the event primary limits are reduced or aggregate limits are exhausted. Such insurance will be primary and non-contributory to any other valid and collectable insurance and must be exhausted before implicating any Permittor/MTA policy available.

Such policy should be written on an occurrence form; and will include:

- Contractual coverage for liability assumed by the Permittee under this agreement;
- Personal and Advertising Injury Coverage;
- Products-Completed. Operations;
- Independent Contractors Coverage;
- "XCU" coverage (Explosion, Collapse, and Underground Hazards) where necessary;

• Contractual Liability Exclusion, applicable to construction or demolition operations to be performed within 50 feet of railroad tracks, will be voided, where necessary; and,

• Additional Insured Endorsement (I.S.O. Form CG 20 26 07/04 version or equivalent) approved the Permitter naming:

New York City Transit Authority (NYCTA), the Manhattan and Bronx Surface Transit Operating Authority (MaBSTOA), the Staten Island Rapid Transit Operating Authority (SIRTOA), MTA Capital Construction Co., the Metropolitan Transportation Authority (MTA) including its subsidiaries and affiliates, and the City of New York (as Owner).

(c) <u>Business Automobile Liability Insurance Policy</u> - (I.S.O. Form CA 00 01 10 01 or equivalent) approved by the Permitter is required if Permitee's vehicle enters Permittor property. The insurance must be in the name of the Permittee or its contractor entering the Permittor property with limits of liability in the amount specified in Schedule A for claims for bodily injuries (including death) to persons and for damage to property arising out of the ownership, maintenance or use of any owned, hired or non-owned motor vehicle.

(d) <u>Railroad Protective Liability Insurance</u> policy will be required as specified in Schedule A.

(e) <u>Environmental/Pollution Exposures</u> In the event environmental or pollution exposures exist, the Permittee will require the environmental contractor or sub-contactor to provide the applicable insurance covering such exposure. The limits and type of insurance provided will be satisfactory to the Permittor and will be confirmed to the parties prior to the start of the work.

2. General Requirements Applicable to Insurance Policies

(a) All of the insurance required by this Article will be with Companies licensed or authorized to do business in the State of New York with an A.M. Best Company rating of not less than A-/VII or better and reasonably approved by the *Permittor/MTA* and will deliver evidence of such policies.

(b) Except for Workers Compensation, all references to forms and coverages referred to above will be the most recent used by the Insurance Services Office, Inc. (ISO") or equivalent forms approved by the Insurance Department of the State of New York, provided, however, that excess coverages may be written on forms reasonably acceptable to Permittor containing provisions other than those contained in ISO forms but otherwise conforming in substance to the requirements of this Article.

(c) The Permittee or its Contractor performing the work must furnish evidence of all policies before any work is started to the Permittor using the following link

https://us.marketplace.asite.com/marketplace/main/detail/28/1/1/5512158/forms

These policies must: (i) be written in accordance with the requirements of the paragraphs above. as applicable; (ii) be endorsed in form acceptable to include a provision that the policy will not be canceled, materially changed, or not renewed, unless otherwise indicated herein, at least thirty (30) days prior written notice to the Permittor c/o MTA Risk and Insurance Management (MTA RIM) Department – Standards, Enforcement & Claims Unit, 2 Broadway – 21st floor, New York, NY 10004; and (iii) state or be endorsed to provide that the coverage afforded under the contractor's policies will apply on a primary and not on an excess or contributing basis with any policies which may be available to the Permittor/MTA, and also that the contractor's policies, primary and excess, must be exhausted before implicating any Permittor/MTA policy available. (iv) In addition, contractor's policies will state or be endorsed to provide that, if a subcontractor's policy contains any provision that may adversely affect whether contractor's policies are primary and must be exhausted before implicating any Permittor/MTA policy available, contractor's and subcontractor's policies will nevertheless be primary and must be exhausted before implicating any Permittor/MTA policy available. Except for Professional Liability, policies written on claims made basis are not acceptable. At least two (2) weeks prior to the expiration of the policies, contractor will endeavor to provide evidence of renewal or replacement policies of insurance, with terms and limits no less favorable than the expiring policies. Except as otherwise indicated in the detailed coverage paragraphs below, self-insured retentions and policy deductibles will not exceed \$100,000, unless such increased deductible or retention is approved by Permittor/MTA. The Permittee will be responsible for all claim expense and loss payments within the deductible or selfinsured retention. The insurance monetary limits required herein may be met through the combined use of the insured's primary and umbrella/excess policies.

(d) Certificates of Insurance may be supplied as evidence of policies of the above policies, except for Policy (d) Railroad Protective Liability Insurance Policy. However, if requested by the Permittor, the Permittee will deliver to the Authority, within forty-five (45) days of be request, a copy of such policies, certified by the insurance carrier as being true and complete. The Railroad Protective Liability Insurance Policy. A detailed Insurance Binder may be provided, ACORD or Manuscript Form, pending issuance of the Original Policy. The Original Policy must be submitted to MTA RIM within 30 days of the Binder Approval.

(e) If a Certificate of Insurance is submitted, it must: (1) be provided on the Permittor Certificate of Insurance Form or MTA Certificate of Insurance Form for Joint Agency Agreements; (2) be signed by an authorized representative of the insurance carrier or producer and notarized; {3) disclose any deductible, self-insured retention, sub-limit, aggregate limit or any exclusions to the policy that materially change the coverage; (4) indicate the Additional Insureds and Named Insureds as required herein, along with a <u>physical copy</u> of the Additional Insured Endorsement (I.S.O. Form CG 20 26 07/04 version or equivalent), as applicable and the endorsement(s) must include policy number(s); (5) reference the Contract by number on the face of the certificate; and (6) expressly reference the inclusion of all required endorsements.

(f) The minimum amounts of insurance required in the detail description of policies (a), (b), (c), and (d) above will not be construed to limit the extent of the Permittee's liability under this Agreement.

(g) If, at any time during the period of this Agreement, insurance as required is not in effect, or proof thereof is not provided to the Permittor, the Permittor will have the options to:

(i) direct the Permittee to suspend work or operation with no additional cost or extension of time due on account thereof; or

(ii) treat such failure as an Event of Default.

Q. <u>STANDARD WORKING HOURS:</u> In absence of OCMC Traffic Stipulations, standard working hours are 7:00 A.M. and 6:00 P.M., Monday through Friday. Work performed outside the standard working hours must be pre-approved by DDC.

R. <u>TREE BARRIERS</u>. The Contractor will furnish, install, maintain and subsequently remove temporary Protective Tree Barriers. Protective Tree Barriers will be Type B, unless otherwise directed by the Engineer, and will be constructed and installed as shown on the Protective Tree Barrier sketch in Department Of Transportation, Standard Highway Details Of Construction, Drawing No. H-1046A, as directed by the Engineer, and in accordance with Department of Parks and Recreation requirements.

Price of the tree barriers must be included in the in the unit prices bid for all scheduled items.

S. <u>UTILITIES</u>. All utility locations and invert elevations are not guaranteed, nor is there any guarantee that all existing utilities, whether functional or abandoned within the project area are shown.

T. <u>HOUSE CONNECTIONS</u>. All existing house connections will be maintained and supported during construction. The Contractor will replace any existing house connection damaged as a result of the Contractor's construction operations as ordered by the Engineer at no cost to the City.

U. <u>VICTAULIC STYLE 77 COUPLING</u>. The Contractor is notified that Victaulic Style 77 Coupling is no longer acceptable for use in any steel water main work. All reference to Victaulic Style 77 Coupling within the Standard Sewer And Water Main Specifications of the Department of Environmental Protection (dated July 1, 2014), the Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), the Specifications For Trunk Main Work (dated July 2014), and the contract drawings, will be replaced with Bolted Split-Sleeve Restrained Coupling.

V. <u>STREET LIGHT AND TRAFFIC SIGNAL</u>. The Contractor is responsible for any damage to the existing street lighting and traffic signal equipment, including underground conduits and the safety of both pedestrian and vehicular traffic for the duration of the contract.

Should any conduits, cables or foundations need repair due to the Contractor's negligent operations during construction, all work will be performed according to NYCDOT Bureau of Traffic's Standard Drawings and Specifications and City of New York DOT System Engineering Specifications (dated November 2013) at the sole expense of the Contractor.

It is the Contractor's responsibility to secure an approved electrical contractor to perform all traffic signal work (if any). For list of approved electrical contractors, contact Mr. Michael R. LeFosse of New York City Department of Transportation at (212) 839-3799.

W. <u>SAW CUT</u>. The Contractor is advised that where the existing roadway pavement is designated to be replaced from curb to curb, then no full depth saw cutting of pavement for sewer and water main trenches will be required, except at the limits of full width pavement restoration. No separate or additional payment will be made for any saw cutting.

X. <u>PRE-CONSTRUCTION STAGE.</u> The Contractor is advised that the Base Contract Duration (consecutive calendar days "ccds") must also include pre-construction stage from the Notice To Proceed date. During this stage the Contractor is required to submit the necessary shop drawings, obtain all permits and submit the health and safety plan for review and approval. The Engineer's field office will also need to be established during this pre-construction stage period. Failure to comply with the pre-construction stage requirements may result in assessing liquidated damages to the Contractor for everyday beyond the pre-construction stage duration. The liquidated damage will be of equivalent value as identified in the Schedule A for work beyond the construction completion date.

Y. <u>EXISTING SEWERS, WATER AND APPURTENANCE</u>. The Contractor is notified that at some locations there may exists sewers, manholes, water mains, etc., which are to remain undisturbed and are in close proximity to the line of the proposed work. The Contractor exercise extreme care, minimize the trench width of the proposed sewers and take all necessary precautions in placing sheeting and during excavation of the trenches to prevent any damage to the existing structures, pavement, curbs, and sidewalks that are to remain while working adjacent to them. The Contractor maybe restricted to use wood sheeting at certain critical locations as directed by the Engineer. Should any damage occur to any portion of the existing structures that are to remain due to the Contractor's operations, the Contractor will make all repairs to the existing structures to the satisfaction of and as directed by the Engineer. The cost of such repair will be borne by the Contractor, at no cost to the City. Additional cost to use wood sheeting specifically to ensure integrity of existing sewer structures will be deemed included in all bid items for work.

RECONNECTING EXISTING SEWERS TO NEW MANHOLES. Ζ. If there are locations on the contract plans, where the Contractor is required to reconnect all existing sewers to the proposed manholes in this contract. The said manholes will be fabricated to provide openings for the existing sewers at the specified invert elevations as shown on the contract drawings. The cost of reconnecting existing sewer pipes to new manholes, including concrete collar with steel reinforcements and/or grouting around the existing sewer pipes at the openings and all work necessary to complete the pipe reconnection, to the satisfaction of the Resident Engineer will be deemed included in the prices bid for items all of work. No additional payment will be made.

[ARTICLE "AA" IS ONLY APPLICABLE IF ITEMS FOR VIBRATION MONITORING ITEM NO. 76.31 IS IN THE BID SCHEDULE]

AA. <u>VIBRATION MONITORING</u>. In case of structures requiring vibration monitoring, the Contractor, in addition to Continuous Real Time Monitoring for Vibrations as determined in the Construction Report must provide Continuous Real Time Monitoring for Vibrations of existing buildings/structures adjacent to or in the proximity of different types of construction activities being conducted including, but not limited to, installation of sheeting for construction of proposed water and sewer mains, installation of sheeting for excavation of jacking/receiving pits, direct jacking of sewers, piling work or as directed by the Engineer.

AB. <u>CITY ASSETS.</u> The Contractor is advised that any City owned light poles, traffic signals, street name signs, traffic signs and encumbrances including, but not limited to, underground conduit displaced as the result of the installation of the new sewers, water mains, catch basins, catch basin connections and appurtenances will be replaced in kind and as directed by the Engineer. The cost of such work will be deemed included in the prices bid for all items of work under this contract.

[ARTICLE "AC" IS ONLY APPLICABLE FOR WATERMAIN 24-INCHES AND HIGHER]

AC. <u>"AS-BUILT" DRAWINGS FOR WATER MAINS AND APPURTENANCES 24-INCHES (600-MM.) AND LARGER</u>: Upon the completion of the work for each Capital Project and as a condition precedent to obtaining the certificate for substantial completion for each Capital Project under Article 44 of the Contract, the Contractor will furnish "As-Built" drawings for water mains and appurtenances 24-inches and larger to the City. The Contractor will prepare and submit the "As-Built" record drawings to the Engineer for approval. Approved "As-Built" drawings will be delivered to the Department of Design and Construction, 30-30 Thomson Avenue, Long Island City, New York, 11101-3045. The following guideline is provided for the preparation of "As-Built" record drawings:

1. The Contractor will prepare the "As-Built" drawings on AutoCAD and will provide to the City two (2) sets of Mylar and AutoCAD files on a CD. The drawings on CD's and the plotted Mylar's will conform

to the standard size of 22" x 36" (559-mm. x 914-mm.) using a 1"=30' (1:360) horizontal and 1"=10' (1:120) vertical scale. The Mylar will be 3-mil in thickness.

2. The "As-Built" drawings will include but not be limited to the following guidelines summarized below:

(a) Drawings will consist of the same legend and layout of title boxes shown on the contract drawings.

(b) Each plotted Mylar drawing will contain the signature and stamp of the Contractor's NYS Professional Engineer/Registered Architect.

(c) The drawings will include:

- street name and crossing street(s) or distance from;
- north arrow;
- property lines and widths;
- legal and existing street widths, street alignment and grades;
- "new" curb lines and widths;
- water main center line measured off the "new" curb line;
- horizontal stationing for all valves, hydrants, outlets, blow-offs, house service connections, etc., measured on a horizontal line as established by the Borough Office Bureau of Topographic;
- alignment and appurtenance location stationing, and deflection angles;
- cover and elevations (Datum used will be that of the Borough where work is located);
- location of pipe joints;
- profile of all piping;
- complete details of all outlet piping roundabouts;
- complete details of all blow-off connections to the sewer;
- complete details of all air cocks;
- location of taps and access manholes;
- location of all cathodic protection stations;
- Venturi sensing lines plans and profiles;
- all appropriate notes.

3. The cost of preparing and submitting "As-Built" approved drawings will be deemed included in the prices bid for all scheduled bid items in the contract. No separate or additional payment will be made for this work.

AD. <u>SIDEWALK PEDESTRIAN RAMPS STANDARD DRAWING</u>. The Contractor is advised that NYCDOT Standard Drawing number H-1011 dated 7/1/10, SIDEWALK PEDESTRIAN RAMPS, is no longer to be used for the purpose of determining geometry, dimensions, and tolerances for the construction of sidewalk ramps. NYSDOT Standard Sheet 608-01 (Pedestrian Facilities) must be used for determining geometry, dimensions, and tolerances for the construction of sidewalk ramps, except that Type 8 must not be used. All requirements of the NYCDOT Standard Highway Specifications will still apply; this does not mandate or allow the use of any NYSDOT Standard Specifications as an alternate unless specifically called for in the contract documents.

NYSDOT Standard Sheet 608-01 is available at the following link: https://www.dot.ny.gov/main/business-center/engineering/cadd-info/drawings/standard-sheets-us

AE. <u>NO ADDITIONAL PAYMENT</u>. The Contractor is advised that any fences, guardrails, boulders, asphalt walkway of the park, fixtures, other encumbrances removed within project limits during construction will be replaced in kind to the satisfaction of the Engineer. The cost of such work will be deemed included in the prices bid for all contract items of work and no additional or separate payment will be made.

AF. <u>SHEETING AND EXCAVATION AT TRANSIT FACILITIES</u>. In case of transit facilities like MTA, LIRR, METRO NORTH etc., the Contractor will exercise extreme caution and take all necessary precautions in placing sheeting and excavation to prevent any damage to the existing underground or overhead structures and its appurtenances during construction work throughout the project area. The Contractor must take full responsibility to protect the said structures and its appurtenances and any damage caused by the Contractor's operations must be made good by the Contractor to the satisfaction of the Engineer at no additional cost to the City.

The Contractor must submit shop drawings to the Transit facilities showing all the details and methods of construction, such as, sheeting and bracing, including the Contractor's procedure and sequence of construction, supporting and/or protection of the existing structures and its appurtenances, with necessary design calculations for approval prior to starting of the construction. The design will be made by a New York State Licensed Professional Engineer skilled in this type of construction and as further evidenced by the imprint of Professional Engineer's seal and signature on all drawings. The cost of this work will be deemed included in the price bid for all items of work under this contract.

[ARTICLE "AG" IS ONLY APPLICABLE IF PAVEMENT MARKING ITEMS LIKE ITEM NUMBERS 6.44, 6.44CST, 6.49 ETC., ARE IN THE BID SCHEDULE]

AG. <u>PAYMENT FOR PAVEMENT MARKINGS</u> Pavement Markings such as those detailed in the Pavement Markings Conversion Table attached herein and shown on the Typical Pavement Markings word messages attached herein Attachment 1 and Attachment 2, will be payable in quantities of LF (Linear Feet).

[ARTICLE "AH" IS ONLY APPLICABLE IF ITEMS ITEM NO. HW-908 FOR ARCHAEOLOGICAL DISCOVERIES IS IN THE BID SCHEDULE]

AH. <u>ARCHAEOLOGICAL DISCOVERIES</u>. The Contractor is notified that if requested by the Resident Engineer and the City, the Contractor will be required retain the services of an Archaeologist (the "City's Archaeologist") for this project.

The City's Archaeologist will be notified in advance and will be present on site during subsurface excavations as deemed necessary. The City's Archaeologist will be authorized to halt construction at any time in order to record and/or recover any archaeological resources encountered during excavations, and to stabilize in place any human remains encountered.

For the purpose of evaluating and recording archaeological resources, the City's Archaeologist will be allowed to enter trenches provided all standard safety requirements are met. It is understood that some construction down time may be necessary.

In the event that human remains, and/or other significant archaeological deposits are encountered during construction or archaeological investigations, Landmarks Preservation Commission (LPC) will be notified as directed by the City's Archaeologist and the State Historic Preservation Office (SHPO) requires that the following protocol is implemented:

1. At all times human remains must be treated with the utmost dignity and respect. Should human remains be encountered work in the general area of the discovery will stop immediately and the location will be immediately secured and protected from damage and disturbance.

2. Human remains or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.

3. The County coroner and local law enforcement as well as the SHPO and the involved agency will be notified immediately. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archeological. If the remains are archeological in nature, a bio-archaeologist will confirm the identification as human.

4. If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their protection or removal can be generated. The involved agency will consult SHPO and appropriate Native American groups to determine a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance.

5. If human remains are determined to be Euro-American, African- American, etc., the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Consultation with the SHPO and other appropriate parties will be required to determine a plan of action.

Should extra work be ordered by the Resident Engineer as a result of any archaeological discoveries, it will be paid for from the Fixed Sum included in, and in accordance with Item HW-908 Allowance for Extra Work Due To Archaeological Discoveries.

AI. <u>USE OF CITY WATER</u>. Please refer to page 15 of NYCDOT STANDARD SPECIFICATIONS (August 1, 2015), VOLUME I OF II under GENERAL CONDITIONS, Sub Section 1.06.23: Rules, Laws, and Requirements; (A) PERMITS.

AJ. <u>PUBLIC DISSEMINATION OF INFORMATION.</u> The Contractor agrees to hold confidential, both during and after the completion or termination of this Contract, all of the reports, information, or data, furnished to, or prepared, assembled or used by, the Contractor under this Contract. The Contractor agrees to maintain the confidentiality of such reports, information, or data by using a reasonable degree of care, and using at least the same degree of care that the Contractor uses to preserve the confidentiality of its own confidential information. The Contractor agrees that such reports, information, or data will not be made available to any person or entity without the prior written approval of the Commissioner. The obligation under this Section to hold reports, information or data confidential will not apply

where the Contractor is legally required to disclose such reports, information or data by virtue of a subpoena, court order or otherwise ("disclosure demand"), provided that the Contractor complies with the following: (1) the Contractor will provide advance notice to the Commissioner, in writing or by e-mail, that it received a disclosure demand for such reports, information or data and (2) if requested by the Commissioner, the Contractor will not disclose such reports, information or data until the City has exhausted its legal rights, if any, to prevent disclosure of all or a portion of such reports, information, or data. The previous sentence will not apply if the Contractor is prohibited by law from disclosing to the City the disclosure demand for such reports, information or data.

The Contractor will restrict access to confidential information to persons who have a legitimate work-related purpose to access such information. The Contractor agrees that it will instruct its officers, employees, and agents to maintain the confidentiality of any and all information required to be kept confidential by this Contract.

The Contractor, and its officers, employees, and agents will notify the Commissioner, at any time either during or after completion or termination of this Contract, of any intended statement to the press or any intended issuing of any material for publication in any media of communication (print, news, television, radio, Internet, etc.) regarding the services provided or the data collected pursuant to this Contract at least twenty-four (24) hours prior to any statement to the press or at least five (5) business days prior to the submission of the material for publication, or such shorter periods as are reasonable under the circumstances. The Contractor may not issue any statement or submit any material for publication that includes confidential information as prohibited by this Section.

At the request of the Commissioner, the Contractor will return to the Commissioner any and all confidential information in the possession of the Contractor or its subcontractors. If the Contractor or its subcontractors are legally required to retain any confidential information, the Contractor will notify the Commissioner in writing and set forth the confidential information that it intends to retain and the reasons why it is legally required to retain such information. The Contractor will confer with the Commissioner, in good faith, regarding any issues that arise from the Contractor retaining such confidential information. If the Commissioner does not request such information, or the Law does not require otherwise, such information will be maintained in accordance with the requirements set forth in the Contract Documents.

AK. <u>PRICES TO INCLUDE</u>. No direct payment will be made for costs incurred in complying with the foregoing Special Provisions, unless otherwise provided. Said costs will be deemed to have been included in the prices bid for all the scheduled contract items.

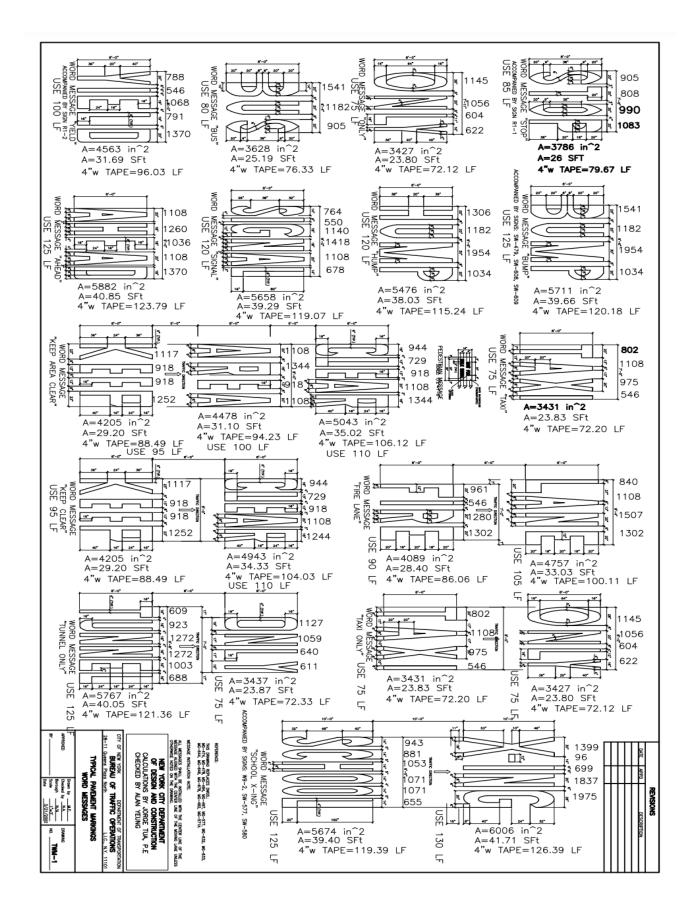
Attachment 1: Pavement Markings Conversion Table

Symbol	Area (in²)	Area (Feet ²)	4" w Tape (LF)	Use (LF)
STOP	3786	26.29	79.67	85
	•			
BUMP	5711	39.66	120.18	125
TAXI	3431	23.83	72.2	75
ONLY	3427	23.8	72.12	75
				,
HUMP	5476	38.06	115.24	120
	1			
BUS	3628	25.19	76.33	80
SIGNAL	5658	39.29	119.07	125
		01.00		
YIELD	4563	31.69	96.03	100
	5000	40.05	100 70	405
AHEAD	5882	40.85	123.79	125
TAXI ONLY	6959	47.62	144.20	150
TAXIONLY	6858 3431	47.63 23.83	144.32 72.2	150 75
ONLY	3431	23.83	72.12	75
	5427	23.0	12.12	75
SCHOOL X-ING	11680	81.11	245.79	255
SCHOOL	5674	39.4	119.4	125
X-ING	6006	41.71	126.39	130
	0000	11.71	120.00	100
FINE LANE	8846	61.43	186.17	195
FIRE	4089	28.4	86.06	90
LANE	4757	33.03	100.11	105
	1			
KEEP AREA CLEAR	13726	95.32	288.84	305
KEEP	4205	29.2	88.49	95
AREA	4478	31.1	94.23	100
CLEAR	5043	35.02	106.12	110
TUNNEL ONLY	9204	63.92	193.69	200
TUNNEL	5767	40.05	121.36	125
ONLY	3437	23.87	72.33	75

PROJECT ID: MIBBNC04A

Symbol	Area (in²)	Area (Feet²)	4" w Tape (LF)	Use (LF)
KEEP CLEAR	9248	64.22	194.61	205
KEEP	4205	29.2	88.49	95
CLEAR	5043	35.02	106.12	110
BICYCLE TRAIL	741	5.15	15.59	20
			· · ·	
BICYCLE LANE	494	3.43	10.4	15
			- <u>r</u>	
BIKE LANE ARROW	328	2.28	6.9	10
			- <u> </u>	
HOV LANE DIAMOND	1403	9.74	29.52	35
SKATER SYMBOL	539	3.74	11.34	15
			· · · · ·	
PEDESTRIAN SYMBOL	980	6.81	20.62	25
YIELD AHEAD TRIANGLE				
45 MPH or GREATER	1315	9.13	27.67	30
LESS THAN 45 MPH	932	6.47	19.61	25
YIELD LINE LAYOUT				
LARGE (4)	432	3	9.1	40
SMALL (6)	108	0.75	2.27	18
STRAIGHT ONLY	1772	12.31	37.29	40
			· · · · · · ·	
LEFT ONLY	2224	15.44	46.8	50
RIGHT ONLY	2224	15.44	46.8	50
STRAIGHT AND LEFT	4117	28.59	86.64	90
ONLY				
			- <u>1</u>	
STRAIGHT AND RIGHT	4117	28.59	86.64	90
ONLY				
		1		
WRONG-WAY ARROW	4121	28.62	86.72	90
		I		
SPECIAL PAVEMENT ARROW	1837	12.76	38.66	40
		1	1	

Symbol	Area (in²)	Area (Feet ²)	4" w Tape (LF)	Use (LF)
ELONGATED HIGHWAY ARROWS				
STRAIGHT AND LEFT ONLY	4580	31.81	96.38	100
STRAIGHT AND RIGHT ONLY	4580	31.81	96.38	100
STRAIGHT ONLY	1852	12.86	38.97	40
_				_
LEFT AND RIGHT ONLY	1783	12.38	37.52	40



(B) HIGHWAY PROJECT SPECIFIC PROVISIONS

(NO TEXT)

(C) SEWER & WATER MAIN PROJECT SPECIFIC PROVISIONS

(NO TEXT)

(D) GREEN INFRASTRUCTURE PROVISIONS

(NO TEXT)

(NO TEXT ON THIS PAGE)

SW - PAGES

SEWER AND WATER MAIN REVISIONS TO SPECIFICATIONS

<u>NOTICE</u>

The Standard Sewer And Water Main Specifications of the Department of Environmental Protection (dated July 1, 2014), Sewer Design Standards of the Department of Environmental Protection (dated (September 2007) Revised January 5, 2009), Water Main Standard Drawings of the Department of Environmental Protection (latest revisions), and Specifications For Trunk Main Work of the Department of Environmental Protection (dated July 2014) shall be included as part of the contract documents. These said specifications and standard drawings are hereby revised under the following section headings:

- A. NOTICE TO BIDDERS
- B. REVISIONS TO THE HIGHWAY STANDARD SPECIFICATIONS
- C. REVISIONS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS
- D. REVISIONS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

(NO TEXT ON THIS PAGE)

A. NOTICE TO BIDDERS

- (1) NYCDDC has multiple simultaneous construction contracts being executed in the vicinity of this contract, including SANDR01 and MIBBNC003. The project areas for SANDR01 and MIBBNC003 are shown on Contract Drawing Sheet 3 of 46 (Drawing No. G-2), and the Contractor must not store any materials or equipment in these areas, without prior written approval of the Engineer. Accordingly, the Contractor is required to coordinate with the Other Contractors as specified in Article 12 of the Standard Construction Contract.
- (2) Prior to the start of construction, the Contractor must survey, investigate and determine the actual location and elevation of the existing headwall and storm sewers which will be connected to new BMP NC-6 weir structure in Midland Avenue at no additional cost to the City. The Contractor must submit their survey/ investigation results to the Engineer for review. Should the Contractor's investigation reveal discrepancies between field condition and contract drawings, the Contractor must notify the Engineer immediately, a modification/change of design will be issued to address the discrepancies.
- (3) The Contractor is notified that a Construction Report and a Post-Construction Report are required under this contract in order to ascertain the effects of installing piles for sewers and chambers. The cost of this work shall be deemed included in the price bid for item No. 76.11CR – Construction Report and Item No. 76.21MR – Monitoring and Post Construction Report.
- (4) The Contractor is noted that all elevations shown on the BMP drawings refer to the Borough of Staten Island sewer datum which is 3.190 feet above mean sea level as established by the U.S. Coast and Geodetic Survey at Sandy Hook, New Jersey.
- (5) The Contractor must refer to BMP Specifications on page BMP-13 to BMP-14 for the Special requirements of BMP Construction.

B. REVISIONS TO THE STANDARD HIGHWAY SPECIFICATIONS

(1) <u>Refer</u> to Standard Highway Specification Volume II (August 1, 2015), Page 372 : <u>Add</u> the following new Section 6.39 B:

SECTION 6.39B

6.39.1. DESCRIPTION. Under this section, the Contractor must set up all necessary general plant and facilities, including shops, storage areas, office and such sanitary and other facilities as are required by City, State or Federal law or regulation. Unless otherwise provided, the cost of required bonds and/or any other similar significant initial expenses required for the initiation of the contract work must also be included in this section. The determination of the adequacy of Contractor's facilities, except as noted above, will be made by the Engineer.

6.39.2. MATERIALS. Unless otherwise specified, materials required under this section are not part of the completed contract and may be as selected by the Contractor.

6.39.3. CONSTRUCTION METHODS. Such work as is done in providing the facilities and services under this section must be done in a safe and workmanlike manner and must conform with any pertinent City, State or Federal law, regulation or code. The Contractor must provide facilities and services under this section that are planned and executed to ensure the maintenance of safety and good housekeeping at the construction site.

6.39.4. PRICE TO COVER.

Payment will be made by lump sum. The amount bid will include the furnishing and maintaining of any plant, services or other facilities noted under "Description" to the extent and at the time the Contractor deems them necessary for the Contractor's operations, consistent with the requirements of this section and the contract. The amount bid for this lump sum item will be payable to the Contractor when the following items are submitted and approved by the Engineer:

- 1. The provision of a Field Office per Section 6.40 of the NYCDOT Standard Highway Specifications.
- 2. The Site Safety Plan per the Safety Requirements section of the Information for Bidders.
- 3. The Schedule of Operations (project baseline schedule) per Section 1.06.25 of the NYCDOT Standard Highway Specifications.
- 4. The Progress Schedule per Standard Construction Contract Article 9;
- 5. Preconstruction Photographs per Section 6.43 of the NYCDOT Standard Highway Specifications are submitted to the Engineer; and
- 6. Construction Report per Item 76.11CR of the NYCDEP Standard Sewer and Water Main Specifications, if item is required as part of the Contract.

However, should the Contract be terminated, or its term expires prior to completion of at least fifty percent (50%) of the original price bid for the Contract, then the Contractor will be paid a proportionate amount of this item (hereinafter referred to as the "Adjusted Mobilization Payment") based on the following formula:

Adjusted Mobilization Payment = As Bid Mobilization Cost × Total Actual Payments to the Contractor approved by the Engineer Original Total Bid Price + Approved and Registered Change Orders

Where the Contractor has already received the original total payment for this item and the Contract has been terminated or expired prior to completion of at least fifty percent (50%) of the work covered under the original price bid for the Contract, then any monies owed by the City due to the above specified reduction in payment will be withheld from the monies the City owes to the Contractor and/or the City reserves a claim to such funds from the Contractor.

The amount bid for Mobilization must not exceed eight percent (8%) of the total contract price, excluding the price bid for Mobilization, and in no case will payment under this item exceed the original price bid for this item.

Payment will be made under:

Item No. Item

6.39 B MOBILIZATION

Pay Unit

L.S.

C. REVISIONS TO THE STANDARD SEWER AND WATER MAIN SPECIFICATIONS

(1) <u>Refer</u> to Subsection 10.15 - Notice To Utility Companies, Etc., To Remove Structures Occupying Place Of Sewers, Water Mains Or Appurtenances, Page I-11: <u>Add</u> the following to Subsection 10.15:

(1) CONSOLIDATED EDISON COMPANY OF NEW YORK (CON EDISON)

There are CON EDISON facilities in the area of construction. The Contractor will notify CON EDISON at least seventy-two (72) hours prior to the start of construction by contacting Mr. Noel Leon at (718) 802-3013.

(2) VERIZON

There are VERIZON facilities in the area of construction. The Contractor will notify VERIZON at least seventy-two (72) hours prior to the start of construction by contacting Mr. Rohan Eccles at (516) 758-3742.

(3) NATIONAL GRID

There are NATIONAL GRID facilities in the area of construction. The Contractor shall notify NATIONAL GRID at least seventy-two (72) hours prior to the start of construction by contacting Mr. Neville Jacobs Jr. at (718) 963-5612.

(4) SPECTRUM OF NEW YORK CITY

There are SPECTRUM facilities in the area of construction. The Contractor shall notify SPECTRUM at least seventy-two (72) hours prior to the start of construction by contacting Mr. John Piazza at (718) 888-4261.

(2) <u>Refer</u> to Subsection 10.21 - Contractor To Notify City Departments, Page I-13: <u>Add</u> the following to Subsection 10.21:

(1) N.Y.C. D.E.P., BUREAU OF WATER AND SEWERS OPERATIONS

The Contractor will notify Ms. Sol Posada, P.E., Chief, Linear Capital Program Management Division at the Department of Environmental Protection, 59-17 Junction Blvd., 3rd floor low rise, Corona N.Y. 11368, at (718) 595-7434 at least thirty (30) days prior to the start of construction.

(2) NEW YORK CITY FIRE DEPARTMENT

The Contractor shall notify the Bureau of Fire Communications at least thirty (30) days prior to the start of construction by contacting Mr. Ed Durkin at (718) 624-4194 or (718) 624-3752.

(3) N.Y.C. DEPARTMENT OF TRANSPORTATION

The Contractor will notify Mr. Bjorn Seedan/ Akmal Mikhail – Traffic Signal/Street Lighting Operations, 34-02 Queens Blvd., Long Island City, N.Y. 11101 at (212) 839-3790/ (212) 839-3368, at least seventy-two (72) hours prior to the start of construction.

(4) N.Y.C. DEPARTMENT OF PARKS AND RECREATION

The Contractor shall notify the Parks Department at least seventy-two (72) hours prior to the start of construction by contacting Mr. Daniel Grulich at (718) 760-6927.

(5) N.Y.C. TRANSIT AUTHORITY

The Contractor is advised that bus routes as well as bus stops, within the scope of this project may be affected during construction operations. The Contractor shall notify the Transit Authority at least two (2) weeks prior to the start of construction, in order to make the necessary arrangements.

Arrangements shall be made through:

Ms. Sarah Wyss Director Of Short Range, Bus Service Planning (SRB) New York City Transit 2 Broadway, 17th Floor New York, N.Y. 10004 Telephone No. (646) 252-5517 sarah.wyss@nyct.com

(3) <u>Refer</u> to Subsection 10.24 – Damaged Water Service Pipes To Be Repaired By A Licensed Plumber, Page I-14:

Add the following to Subsection 10.24:

If the damaged or cut water service pipe is lead, galvanized steel, or galvanized iron, the service pipe must not be partially replaced, but fully replaced from the main to the house control valve. If the service pipe was damaged, cut, or otherwise interrupted due to the Contractor's actions or means & methods (including selection of shoring systems), the water service pipe will be replaced at the Contractor's own cost.

(4) <u>Refer</u> to Subsection 10.30 - Contractor To Provide For Traffic, Page I-15: <u>Add</u> the following to Subsection 10.30:

(1) Traffic Stipulations:

The Contractor shall refer to the Traffic Stipulations (five (5) pages) that are attached to the end of this section, and as directed by the Engineer.

(5) <u>Refer</u> to Subsection 40.02.15 - Disposal Of Water From Trenches, Page IV-9: <u>Add</u> the following to Subsection 40.02.15:

(A) The Department of Design and Construction has <u>not</u> filed application for Dewatering Permit with the New York State Department of Conservation (NYSDEC), under the Environmental Conservation Law (ECL), Title 15 of Article 15, for a Temporary Well Point System Permit. However, it is anticipated that the criteria for rate of pumping specified herebefore in this section will be exceeded in areas of construction; the Contractor shall be responsible for applying and obtaining the necessary dewatering permit prior to the dewatering of trenches within the scope of this project.

As part of the permit application the Contractor will be required to comply with all the requirements of **Section 40.14** of this section.

Copies of all materials submitted to NYSDEC shall be sent to the New York City Department of Design and Construction (NYCDDC), Infrastructure/Design.

The following minimum requirements set forth by the New York Department of Environmental Conservation shall be complied with prior to the start of work in areas of construction requiring dewatering permit:

(1) An analysis must be made of water samples taken. The results are to be submitted to the Regional Permit Administrator. An analysis shall be made for BOD, salinity, oil, and grease. The samples shall be analyzed by a laboratory certified by the New York State Health Department and the results are to be submitted directed to the New York State Department of Environmental Conservation by the laboratory.

(2) Prior to setting any wells, wellpoints or header pipes, the Contractor shall submit to the NYSDEC a layout of the complete dewatering system including the location of the discharge point. When permitted by the NYSDEC, discharge of groundwater on the beach areas shall be done in such a manner as to eliminate any erosion or siltation and will require the installation of splash blocks and/or settling basins.

The Contractor is advised that all work required in obtaining a permit, must be submitted to, and approved by the NYSDEC prior to the commencement of any work in areas of construction requiring dewatering permit. No payment for any item of work will be made, and no shop drawing shall be approved for the areas of construction until such time that a written approval is obtained from the NYSDEC.

(B) The Contractor is advised that all work shall be governed by the provisions and requirements of the obtained permit, and their said provisions and requirements shall be made a part of the contract and the Contractor shall be responsible for strict adherence thereto.

The cost of all work required for applying, complying and obtaining required dewatering permits including the cost for any required updating of permits shall be deemed included in the prices bid for all item of this contract. No additional or separate payment will be made for any work required in order to comply with these requirements.

(6) <u>Refer</u> to Page IV-34: <u>Add</u> the following new Section 40.14:

SECTION 40.14 DEWATERING PERMITS

40.14.1 DESCRIPTION

Under this contract, and at locations where groundwater will be present in the trenches and excavations, the Contractor is required to install, maintain and operate a temporary dewatering system of sufficient size and capacity to control ground and surface water flow into the excavation and to allow all work to be accomplished in the "dry condition".

The Contractor shall be required to obtain the following permits in order to operate a temporary dewatering system.

- (A) A Dewatering/Discharge Permit from the New York City Department of Environmental Protection (NYCDEP);
- (B) A Long Island Well Permit from the New York State Department of Environmental Conservation (NYSDEC), under the Environmental Conservation Law (ECL), Title 15 of Article 15, implemented by 6NYCRR Part 601 - Water Supply and Part 602 - Long Island Well. <u>This permit is required only in the Boroughs of Brooklyn and Queens to withdraw</u> water using a well point or deep well system where the total capacity of such well or wells is in excess of 45-gallons per minute (or 64,800-gallons per day); and,
- (C) <u>An Industrial State Pollutant Discharge Elimination System (SPDES) or a Non-Jurisdictional Determination Letter in compliance with Title 8 and 7 of Article 17 of the Environmental Conservation Law of New York State, respectively.</u>

The Contractor is advised that the provisions and requirements of the aforementioned permits shall govern all work, and the said provisions and requirements are hereby made a part of the sewer contract and the Contractor shall be responsible for strict adherence thereto.

No dewatering work shall commence until the above-mentioned Permits have been obtained for this project.

The Contractor is advised that in order to comply with all the permits requirements, the Contractor will be required to submit maps, test data, etc. prior to the start of work. In order to expedite the processing of the permit and its requirements, the Contractor shall be required to obtain the services of an independent Environmental Scientist as herein described below in **Subsection 40.14.2** to perform this work and act as liaison with NYSDEC and NYCDEP.

40.14.2 QUALIFICATIONS

The Environmental Scientist utilized to perform the work required under this section must have adequate experience in work of this nature (obtaining Long Island Well Permit/Dewatering Permit) and must have previous experience in working with the NYSDEC and the NYCDEP, designing equivalent dewatering systems, and have successfully obtained the type of permits required under this contract. Prior to the start of work, the Contractor will be required to submit the name and resume of the Environmental Scientist for approval.

40.14.3 NYSDEC DEWATERING PERMITS

The dewatering system shall be designed by the Environmental Scientist using accepted and professional methods of design and engineering consistent with the best modern practices.

The material to be submitted shall include, but not be limited to the following:

(1) Site Plan - Scaled, showing construction activity (e.g. excavation, pathway of the pipe, new outfalls, etc.) locations of well points, header pipes and pumps, and all staging and storage areas.

Also included herein shall be a layout of the complete dewatering system including the location of the discharge point. When permitted by the NYSDEC, discharge of groundwater on beach areas shall be done in such a manner as to prevent any erosion or siltation and will require the design and installation of splash blocks and/or settling basins.

- (2) Dewatering System Specifications:
 - (a) Number of Well Points
 - (b) Diameter of Well Points
 - (c) Spacing of Well Points
 - (d) Length to Screen
 - (e) Depth to Bottom of Screen
 - (f) Static Water Level
 - (g) Drawdown Required

- (h) Total Volume Pumped
- (i) Number of Pumps
- (j) Capacity of Pumps
- (k) Duration of Pumping
- (I) Initial and Average GPM
- (m) Estimated Daily Pumpage
- (n) Flow Meter
- (3) Cross Section Scaled, showing well points, riser, header, annular material (if used) and other equipment associated with each point. A typical construction style drawing may be utilized. Should the Contractor be permitted to use a deep well system, all information regarding it must be submitted.
- (4) Drawdown Contour Map Based upon a review of the surrounding area affected by the dewatering and upon boring within the project area and characteristics of the soils, the depth and pumping rate of dewatering system and the duration of the pumping, the Environmental Scientist shall submit both a narrative and diagram showing the anticipated maximum cone of depression which shall be shown from both above and in cross section on scaled diagrams. Contour lines on diagrams shall be labeled to show depth from land surface.

- (5) Description of Site and Adjacent Areas A short narrative shall be prepared describing the land use in the area paying attention to any potential sources of groundwater contamination that may migrate into the well's cone of depression, such as gas stations, chemical plants, wrecking yards, sanitary landfills, etc. Latest map of the area shall be included in the narrative.
- (6) Groundwater Analysis The Environmental Scientist shall develop and submit a sampling and analysis program subject to NYSDEC Approval (a minimum of one groundwater sample from a site well shall be collected and analyzed). A laboratory certified by the New York State Health Department shall analyze the samples. The sampling and analysis program must include but is not limited to the following:

NO.	PARAMETERS	TYPE	EPA METHOD	DETECTION
1	рН	Grab	150.1	EPA min
2	Temperature	۴F	After Pumping	EPA min
3	Fecal Coliform	Grab	5-Tubes/3-Dilutions	2-MPN/100-ml
4	Oil & Grease	Grab	413.1	EPA min
5	BOD5	Grab	405.1	EPA min
6	Total Suspended Solids	Grab	160.2	EPA min
7	Settleable Solids	Grab	160.5	EPA min
8	Chlorides	Grab	325.1-325.3	EPA min
9	Benzene	Grab	602	EPA min
10	Toluene	Grab	602	EPA min
11	Xylenes	Grab	602	EPA min
12	Ethylbenzene	Grab	602	EPA min
13	PCB's	Grab	608	(See Note 1)
14	Pesticides	Grab	608	EPA min
15	13 Priority Metals	Grab	200 series	EPA min
16	Acids Base/Neutrals	Grab	625-GC/MS	EPA min
17	Halogenated Volatiles	Grab	601-GC	EPA min
18	Nitrate/Nitrite	Grab	300 or 353.3	EPA min
19	Aromatic Volatiles	Grab	602-GC	EPA min
20	Cyanide (total or amenable)	Grab	335.1/335.2	EPA min

NYSDEC REGION 2 - DEWATERING PROJECTS SAMPLING INFORMATION

NOTE:

(1) List each individual aroclor found and report the concentration of each aroclor tested. Use the N.Y.S. detection limit, which is 0.065-µg/l.

Small dewatering projects with a total estimated pumped volume up to 15-Million Gallons (MG) require sampling analysis for parameters No.'s 1 through 12.

Medium dewatering projects with a total estimated pumped volume between 15-MG and 60-MG require sampling analysis for parameters No.'s 1 through 14.

Large dewatering projects with a total estimated pumped volume greater than 60-MG require sampling analysis for parameters No.'s 1 through 20.

Samples are to be collected after development of the well by a licensed well driller.

A laboratory certified by the NYS Department of Health must conduct all testing.

Irrespective of the aforementioned sampling requirements based on total estimated pumped volumes, the Department may require sampling of additional parameters if the proposed dewatering site is suspected of being contaminated.

40.14.4 SUBMISSION OF DEWATERING PLAN

The Environmental Scientist will be required to submit two (2) copies of the Dewatering Plan (together with all reports, materials, designs, drawings, maps and plans) to the Infrastructure Engineering Support Unit for review and approval. Once approved the Environmental Scientist shall submit in triplicate the Final Dewatering Plan to both the NYSDEC and the NYCDEP. The Dewatering Plan should be bound and bear the name of the Contractor, NYSDEC Application Number and the Signature of the preparer. All drawings and maps shall be on sheets 27-inches by 40-inches and to scale not less than 1"=30'.

40.14.5 DAMAGES

The Contractor shall be responsible for and shall repair at no cost to the City any damage caused by inadequate or improper design and operation of the dewatering system, and any mechanical or electrical failure of the dewatering system.

40.14.6 SYSTEM REMOVAL

The Contractor shall remove all dewatering equipment and temporary electrical service from the site. All wells shall be removed or cut off a minimum of three (3) feet below the final ground surface and capped. Holes left from pulling wells or wells that are capped shall be grouted in a manner approved by the Engineer.

40.14.7 PAYMENTS

No additional or separate payment will be made for any work described herein. The costs for all labor, materials, equipment, permit fees, samples, tests, reports, services and insurance required or necessary to perform all the work described herein shall be deemed included in the price bid for all items of work.

(7) <u>Refer</u> to Subsection 71.41.4 - Specific Pavement Restoration Provisions, Page VII-67: <u>Add</u> the following to Subsection 71.41.4:

- (E) Specific Pavement Restoration Provisions:
 - (1) In **Lincoln Avenue** from approximately thirty (30) feet west of the west building line of Sanilac Street to approximately ten (10) feet east of the east curb line of Sanilac Street. The restoration shall be as follows:
 - (a) The entire width of roadway and six (6) inches of existing roadway subgrade shall be removed from curb to curb or edge to edge and permanent restoration over the entire width of roadway shall consist of six (6) inches of asphaltic macadam pavement on a sub-base course of six (6) inches of select granular material, (Material D only) on Plastic Filter Fabric. The above areas are approximate the actual final areas of restoration shall be determined by the Engineer.

- (2) In all other street areas, the restoration shall be as follows:
 - (a) The permanent restoration over the trench width and cutbacks only shall consist of a top course of one and one-half (1-1/2) inches of asphaltic concrete wearing course on a base course of a minimum of four and one-half (4-1/2) inches of binder mixture, to match the existing pavement as directed by the Engineer.
- (3) The following requirements apply:
 - (a) Before the top course is installed, an additional width of asphalt beyond the edge of new base course shall be saw-cut and removed from all edges of trenches to a depth to accommodate the specified top course and the entire area restored. This additional removal shall be in accordance with paragraph (b) below.
 - (b) Pavement excavation along with saw cutting of pavements for sewer and water main trenches shall be in accordance with Section 71.21 - Pavement Excavation of the Standard Sewer And Water Main Specifications.
 - (c) At locations requiring the installation of a concrete base course, a reflective cracking membrane shall be installed over joints prior to restoration, the cost of which shall be deemed included in the prices bid for all pavement restoration items. Additionally, appropriate pavement keys as described below shall be used.
 - (d) Pavement keys **Type B-1** shall be used to insure a desired four (4) inch curb reveal (two and one-half (2-1/2) inch absolute minimum). Pavement key **Type A** shall be used in all intersections. Both keys are to be per Department Of Transportation Specifications and Standard Details of Construction.
 - (e) Unless otherwise specified, the cost for Proctor analyses, in-place soil density tests, tack coating, eradication of temporary roadway markings, stripping or milling of pavement keys and adjustment of city-owned castings for all roadway work shall be deemed included in the prices bid for all pavement restoration items.
 - (f) Payment for placement of temporary pavement marking shall be made under Item No. 6.49 TEMPORARY PAVEMENT MARKINGS (4" WIDE).
 - (g) Payment for removal of existing pavement markings shall be made under Item No. 6.53 REMOVE EXISTING LANE MARKINGS (4"WIDE).
 - (h) Payment for placement of permanent pavement marking with thermoplastic reflectorized pavement markings (crosswalk and lane dividers) shall be made under Item No. 6.44 - THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS (4" WIDE).
 - (i) Payment for pavement restoration shall be made under the following items:

Item No.	ltem	Payment Description
4.01 RAG	Asphalt Macadam Pavement, 6" Thick	(For entire width of roadway restoration.)
4.02 AB-R	Asphaltic Concrete Wearing Course, 1-1/2" Thick	(For asphaltic concrete wearing course top course when <u>no</u> overlay is required.)
4.02 CA	Binder Mixture	(For binder mixture base course over trenches and cutbacks; binder mixture top filler course under asphaltic concrete wearing course when <u>no</u> overlay is required; binder mixture top course when overlay is required; binder mixture in

		Type A and B Keys; and binder mixture to fill in roadway depressions and to provide a leveling course prior to overlay where ordered.)
6.67	Subbase Course, Select Granular material	(For 6" sub-base course under entire width of roadway restoration.)
6.68	Plastic Filter Fabric	(For placement under subbase course.)

D. REVISIONS TO THE SPECIFICATIONS FOR TRUNK MAIN WORK

<u>Refer</u> to Part 1 – Furnishing And Delivering Steel Pipes And Appurtenances 30 Inches In Diameter And Larger, Section 11. Fabrication:, Page 4; <u>Add</u> the following to Section 11:

All steel water mains shall be spiral welded pipes, and all steel water main fittings shall be fabricated from qualified spiral welded pipe. Can type pipe is not acceptable.

 2) <u>Refer</u> to Part 1 – Furnishing And Delivering Steel Pipes And Appurtenances 30 Inches In Diameter And Larger, Section 13. Special Fittings:, Page 5; Add the following to Section 13:

The steel reducer shall have a length of seven (7) feet for every twelve (12) inches reduction in diameter.

3) <u>Refer</u> to the NYCDEP Specifications for Trunk Main Work, Division 2, Article 51.A. In addition to the Methods specified in the article, shop applied polyurethane exterior coatings meeting the requirements of AWWA C222 and heat-shrinkable cross-linked polyolefin exterior coatings meeting the requirements of AWWA C216 are acceptable.

END OF SECTION This Section consists of twelve (12) pages plus five (5) pages of attachments. NO TEXT ON THIS PAGE



POLLY TROTTENBERG, Commissioner

OCMC TRAFFIC STIPULATIONS

02/04/2021

OCMC FILE NO: CONTRACT NO: PROJECT:	REC-20-643 MIBBNC04A CONSTRUCTION OF BEST MANAGEMENT PRACTICES BMP NC-6 BOUNDARY AVENUE AND BMP NC-15 LACONIA AVENUE
	BOUNDARY AVENUE AND LACONIA AVENUE IN STATEN ISLAND

PERMISSION IS HEREBY GRANTED TO THE **NYC DDC** AND ITS DULY AUTHORIZED AGENT, TO ENTER UPON AND RESTRICT THE FLOW OF TRAFFIC AT THE ABOVE LOCATION(S) FOR THE PURPOSE OF CARRYING OUT THE ABOVE NOTED PROJECT, SUBJECT TO THE STIPULATIONS, AS NOTED BELOW:

I. SPECIAL STIPULATIONS

- A. <u>EMBARGOES</u> A CONSTRUCTION EMBARGO WILL APPLY TO THOSE LOCATIONS BELOW WHICH FALL WITHIN THE <u>HOLIDAY EMBARGO</u> OR ANY OTHER SPECIAL EVENT EMBARGOES PUBLISHED BY THE BUREAU OF PERMIT MANAGEMENT AND CONSTRUCTION CONTROL.
- B. <u>BIKE LANES</u> IF WORK IS IN OR AFFECTING A BIKE LANE, THE PERMITTEE MUST POST ADVANCE WARNING SIGNS 350 FEET AND 200 FEET PRIOR TO THE WORK ZONE STATING "CONSTRUCTION IN BIKE LANE AHEAD PROCEED WITH CAUTION", AND ALSO POST A SIGN AT THE WORK ZONE STATING "CONSTRUCTION IN BIKE LANE PROCEED WITH CAUTION". SUCH SIGNS SHALL BE ORANGE, 3' X 3', DIAMOND-SHAPED WITH 4" BLACK LETTERING. SIGNS SHALL BE POSTED IN ACCORDANCE WITH THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- C. BIKE SHARE STATIONS: THE PERMITTEE SHALL NOT REMOVE, RELOCATE, DAMAGE OR DISRUPT THE OPERATION OF EXISTING BIKE SHARE STATIONS WITHOUT FIRST CONTACTING NYC BIKE SHARE AT 855-245-3311 FOR THEIR REQUIREMENTS PRIOR TO COMMENCING WORK.
- D. CITYBENCH: THE PERMITTEE SHALL NOT REMOVE, RELOCATE, DAMAGE OR DISRUPT AN EXISTING CITYBENCH WITHOUT FIRST CONTACTING NYC DOT AT 212-839-6569, OR VIA EMAIL AT CITYBENCH@DOT.NYC.GOV PRIOR TO COMMENCING WORK.
- E. PROTECTION OF NYC DEP GREEN INFRASTRUCTURE: THE PERMITTEE SHALL TAKE PRECAUTION OF NYC DEP GREEN INFRASTRUCTURE IN THE RIGHT-OF-WAY. THE PERMITTEE MUST PROTECT NYC DEP GREEN INFRASTRUCTURE DOWNSTREAM OF THE WORK OR WITHIN FIVE (5) FEET OF THE WORK AREA. THE PERMITTEE MUST EMAIL NYC DEP AT <u>SUSTAINABILITY@DEP.NYC.GOV</u> FOR PROTECTION REQUIREMENTS PRIOR TO COMMENCING WORK. THE PERMITTEE IS RESPONSIBLE FOR RESTORATION OF DAMAGED NYC DEP INFRASTRUCTURE AS DIRECTED BY NYC DEP.
- F. BUS STOPS THE PERMITTEE SHALL PROVIDE WRITTEN NOTICE TO NYC DOT OCMC AND NEW YORK CITY TRANSIT (NYCT) A MINIMUM OF FIVE (5) WEEKS IN ADVANCE FOR LANE/STREET CLOSURES THAT AFFECT BUS ROUTES/BUS STOPS.
- G. STREET LIGHTS / TRAFFIC SIGNALS: THE PERMITTEE SHALL NOT REMOVE OR RELOCATE EXISTING STREET LIGHTS OR TRAFFIC SIGNALS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT STREET LIGHTING / TRAFFIC SIGNALS UNIT.
- H. TRAFFIC CAMERAS, DETECTION/COMMUNICATION EQUIPMENT: IF AT ANY TIME DURING THE APPROVED WORK, THE PERMITTEE ENCOUNTERS TRAFFIC SURVEILLANCE CAMERAS, DETECTION EQUIPMENT OR ANY TYPE OF COMMUNICATION EQUIPMENT (WIRELESS OR HARD-WIRED) ON ANY NYC DOT FACILITY, THAT IS NOT INCLUDED ON THE DESIGN/BUILD DRAWINGS, THE PERMITTEE SHALL IMMEDIATELY NOTIFY NYC DOT TRAFFIC MANAGEMENT BY PHONE AT 718-433-3390 OR 718-433-3340 AND VIA EMAIL AT MC@DOT.NYC.GOV AND AWAIT DIRECTION PRIOR TO CONTINUING WORK.
- I. <u>METERS</u> THE PERMITTEE SHALL NOT REMOVE OR RELOCATE PARKING METERS WITHOUT FIRST OBTAINING APPROVAL FROM NYCDOT PARKING METER DIVISION AT 718 894 8651.
- J. <u>TEST PITS</u> THE BELOW TRAFFIC STIPULATIONS DO NOT APPLY TO TEST PIT WORK RELATED TO THIS CONTRACT. WORK HOURS AND OTHER REQUIREMENTS FOR TEST PIT OPERATIONS MAY DIFFER FROM THE STIPULATIONS IDENTIFIED BELOW. THE PERMITTEE SHALL BE REQUIRED TO OBTAIN SEPARATE PERMITS RELATED TO TEST PITS.
- K. TEMPORARY PARKING REGULATIONS (PAVEMENT MARKINGS THE PERMITTEE IS REQUIRED TO INSTALL, MAINTAIN AND REMOVE ALL NECESSARY TEMPORARY PARKING AND REGULATORY SIGNS AND PAVEMENT MARKINGS, AND RESTORE THEIR ORIGINAL CONDITION PER NYC DOT STANDARDS, PRIOR TO EXPIRATION OF THEIR PERMITS. THE PERMITTEE OR AGENCY PERFORMING PUBLIC OUTREACH SHALL POST AND MAINTAIN ADVISORY SIGNS A MINIMUM OF 48 HOURS PRIOR TO CHANGING EXISTING PARKING REGULATION SIGNS TO APPROVED TEMPORARY CONSTRUCTION PARKING REGULATION SIGNS. THE ADVISORY SIGNS SHOULD BE POSTED ON ALL POLES AND DRIVE RAILS ON THE SEGMENT AFFECTED, INDICATING THE DATE OF THE CHANGE, THE NEW REGULATIONS AND A TELEPHONE NUMBER TO OBTAIN MORE INFORMATION.
- L. <u>ACCESS TO ABUTTING PROPERTIES</u> THE PERMITTEE SHALL COORDINATE ALL ACTIVITIES WITH ABUTTING PROPERTY OWNERS TO ENSURE ACCESS IS PROVIDED TO/FROM ENTRANCES/DRIVEWAYS AT ALL TIMES.

NYC Department of Transportation Bureau of Permit Management and Construction Control 55 Water Street - 7th Floor, New York, NY 10041 T: 212.839.9621 F: 212.839.8970 www.nyc.gov/dot

PROJECT: CONSTRUCTION OF BEST MANAGEMENT PRACTICES BMP NC-6 BOUNDARY AVENUE AND BMP NC-15 LACONIA AVENUE

- M. <u>AUTHORIZED PARKING</u> PRIOR TO PERFORMING WORK WHICH IMPACTS AUTHORIZED PARKING, THE PERMITTEE SHALL SUBMIT IN WRITING, AND COPY OCMC-STREETS, A REQUEST TO OCCUPY SPACE CURRENTLY USED BY AUTHORIZED VEHICLES. APPROVAL MUST BE RECEIVED FROM AUTHORIZED PARKING PRIOR TO OCCUPYING THESE AREAS.
- N. NOTIFICATION THE PERMITTEE MUST AT LEAST TWO (2) WORKING DAYS BEFORE THE START OF CONSTRUCTION NOTIFY THE NYC FIRE DEPARTMENT, NYC POLICE-DEPARTMENT, NYCEMS, LOCAL COMMUNITY BOARD, BOROUGH PRESIDENT'S OFFICE-CHIEF ENGINEER, NYCDOT OCMC OFFICE, AND ALL ABUTTING PROPERTY OWNERS.
- O. <u>CONSTRUCTION INFORMATIONAL SIGNS</u> THIS PROJECT REQUIRES A CONSTRUCTION PROJECT INFORMATIONAL SIGN (CPIS) IN ACCORDANCE WITH NYCDOT HIGHWAY RULE SECTION 2-02 (4) AND (5). CRITERIA AND A PROTOTYPE FOR THIS SIGN MAY BE FOUND ON THE NYCDOT WEBSITE AT:

HTTP://WWW.NYC.GOV/HIML/DOT/EXOWNLOADS/PDF/DOT CPIS DIRECTIONS.PDF

II. MAINTENANCE AND PROTECTION OF TRAFFIC

A. BOUNDARY AVENUE BETWEEN LINCOLN AVENUE AND MIDLAND AVENUE

B. ROWAN AVENUE BETWEEN LACONIA AVENUE AND MASON AVENUE

- 1. Work hours shall be as follows: 7:00AM 6:00 PM Monday- Friday
- 2. During working hours, the contractor shall maintain ONE-12ft. lane for two way traffic, providing flagmen at both ends of the work zone to regulate the traffic.
- 3. The contractor shall maintain either 5ft sidewalk or 5ft protected walkway for pedestrians, the walkway must be ramped at each entry/exit, to & from the sidewalk for handicapped accessibility
- 4. After working hours, the contractor shall restore all travel lanes for traffic and may contain a maximum of 100 linear feet, 8 feet adjacent to the curb during non-working hours. This containment is only to restrict parking and for storage of materials and machinery

C. LINCOLN AVENUE BETWEEN POULTNEY STREET AND BOUNDARY AVENUE

- 1. Work hours shall be as follows: 7:00 AM -6:00 PM Monday Friday
- 2. During work hours for water work, the contractor shall maintain ONE-11ft. lane for one-way traffic.
- 3. The contractor shall maintain either 5ft sidewalk or 5ft protected walkway for pedestrians, the walkway
- must be ramped at each entry/exit, to & from the sidewalk for handicapped accessibility.After working hours, the contractor shall restore all travel lanes for traffic

D. MIDLAND AVENUE BETWEEN BOUNDARY AVENUE AND MASON AVENUE

- Work hours shall be as follows: 9:00 AM 4:00 PM 9:00 AM - 2:00 PM
 During working hours, the contractor shall maintain TWO-11ft lanes for traffic, one in each direction.
- The contractor shall maintain either 5ft sidewalk or 5ft protected walkway for pedestrians, the walkway must
 - be ramped at each entry/exit, to & from the sidewalk for handicapped accessibility.
 - 4. Must coordinate with school before mobilization.
 - 5. Must coordinate with MTA Bus Company regarding Bus lines/stops before mobilization.
 - 6. After working hours, the contractor shall restore all travel lanes for traffic and may contain a maximum of 25 linear feet, 8 feet adjacent to the curb during non-working hours. This containment is only to restrict parking and for storage of materials and machinery

E. LACONIA AVENUE BETWEEN ROWAN AVENUE AND DEAD END

F. LACONIA AVENUE BETWEEN SEAVER AVENUE AND DEAD END

- 1. Work hours shall be as follows: 7:00 AM 6:00 PM
- 2. During working hours, the contractor shall maintain ONE- 12ft. lane for two way traffic, providing flagmen at both ends of the work zone to regulate the traffic.

Monday - Friday

3. The contractor shall maintain either 5ft sidewalk or 5ft protected walkway for pedestrians, the walkway must be ramped at each entry/exit, to & from the sidewalk for handicapped accessibility.

CONSTRUCTION OF BEST MANAGEMENT PRACTICES BMP NC-6 BOUNDARY AVENUE AND PROJECT: **BMP NC-15 LACONIA AVENUE**

4 After working hours, the contractor shall restore all travel lanes for traffic and may contain a maximum of 25 linear feet, 8 feet adjacent to the curb during non-working hours. This containment is only to restrict parking and for storage of materials and machinery

G. INTERSECTION OF BOUNDARY AVENUE AND LINCOLN AVENUE

H. INTERSECTION OF BOUNDARY AVENUE AND ZWICKY AVENUE

- Work hours shall be as follows: 9:00 AM 4:00 PM 1. Monday - Friday
- 2. During working hours, the contractor shall maintain ONE-12 ft. lane for two-way traffic on Boundary Avenue providing flagmen at both ends of the work zone to regulate the traffic and ONE-11ft. Iane for one-way street on cross roadway.
- During working hours, sidewalk maybe closed provided flaggers are at intersection and at both ends of З. work site to safely cross pedestrians.
- After working hours, the contractor shall re-position the barriers against the curb and restore all travelling 4. lanes for travelling.
- 5. After working hours, pedestrian walkway must be maintained on sidewalk.

INTERSECTION OF BOUNDARY AVENUE AND MIDLAND AVENUE Ι.

- 1. Work hours shall be as follows: 9:00 AM 4:00 PM Monday - Friday during school recess 9:00 AM - 2:00 PM
 - Monday Friday during school day
- During working hours, the contractor shall maintain ONE-12 ft. for Two-way traffic on Boundary Avenue 2. providing flagmen at both ends of the work zone to regulate the traffic and TWO-11 ft. lane, one in each direction on Midland Avenue.
- During working hours, sidewalk maybe closed provided flaggers are at intersection and at both ends of З. work site to safely cross pedestrians
- 4. After working hours, the contractor shall re-position the barriers against the curb and restore all travelling lanes for travelling.
- 5. After working hours, pedestrian walkway must be maintained on sidewalk.
- Must coordinate with school before mobilization. 6

J. INTERSECTION OF LINCOLN AVENUE AND SANILAC STREET

INTERSECTION OF LINCOLN AVE NUE AND RUDYARD STREET Κ.

- 1. Work hours shall be as follows: 9:00 AM 4:00 PM Monday - Friday
- During working hours, the contractor shall maintain ONE-11 ft. for one way traffic for both roadways.
- 3. During working hours, sidewalk maybe closed provided flaggers are at intersection and at both ends of work site to safely cross pedestrians
- 4. After working hours, the contractor shall re-position the barriers against the curb and restore all travelling lanes for travelling.
- After working hours, pedestrian walkway must be maintained on sidewalk. 5.

INTERSECTION OF LINCOLN AVENUE AND POULTNEY STREET

- 1. Work hours shall be as follows: 9:00 AM 4:00 PM Monday – Friday during school recess
 - 9:00 AM 2:00 PM

Monday - Friday during school day

2 During working hours, the contractor shall maintain ONE-11 ft. for one-way traffic on both roadways. 3. During working hours, sidewalk maybe closed provided flaggers are at intersection and at both ends of

work site to safely cross pedestrians

- After working hours, the contractor shall re-position the barriers against the curb and restore all travelling 4. lanes for travelling.
- 5 After working hours, pedestrian walkway must be maintained on sidewalk or on roadway.

PROJECT: CONSTRUCTION OF BEST MANAGEMENT PRACTICES BMP NC-6 BOUNDARY AVENUE AND BMP NC-15 LACONIA AVENUE

6. Must coordinate with school before mobilization.

M. INTERSECTION OF LACONIA AVENUE AND ROWAN AVENUE

- 1. Work hours shall be as follows: 7:00 AM 6:00 PM Monday Friday
- 2. During working hours, the contractor shall maintain ONE-12 ft. for TWO- way traffic for both roadways providing flagmen at both ends of the work zone to regulate the traffic.
- 3. During working hours, sidewalk maybe closed provided flaggers are at intersection and at both ends of work site to safely cross pedestrians
- 4. After working hours, the contractor shall re-position the barriers against the curb and restore all travelling lanes for travelling.
- 5. After working hours, pedestrian walkway must be maintained on sidewalk or on roadway.

II. GENERAL NOTES

- A. THIS IS NOT A PERMIT. THIS STIPULATION SHEET MUST BE SUBMITTED WITH ALL REQUESTS FOR PERMITS PERTAINING TO THE ABOVE CONTRACT AND PRESENT AT THE WORK SITE ALONG WITH ALL ACTIVE CONSTRUCTION PERMITS WHEN THE APPROVED WORK IS BEING PERFORMED.
- B. THE PERMITTEE MUST COMPLY WITH ALL CONSTRUCTION EMBARGOS ISSUED BY THE NYCDOT INCLUDING THE HOLIDAY EMBARGO.
- C. THE PERMITTEE SHALL COMPLY WITH ALL REQUIREMENTS OF THE NYCDOT SPECIAL EVENTS UNIT AS IDENTIFIED BELOW:

1. STREET FAIRS / FESTIVALS

- ALL EXCAVATIONS MUST BE PLATED WITH SKID RESISTANT PLATES.
- PLATES MUST BE RECESSED AND FLUSH WITH PAVEMENT.
- ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
- ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.
- 2. RUNNING / WALKING / BIKING EVENTS
- ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
 - ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
- ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.

3. PARADES

- ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
- FORMATION AND DISPERSAL AREA PLATES MUST BE RECESSED AND FLUSH WITH PAVEMENT (PLATES MUST BE SKID RESISTANT).
- ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
- ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.

4. MAYORAL EVENTS

- ALL EXCAVATIONS MUST BE BACKFILLED AND PAVED OR PLATES MUST BE RECESSED AND PAVED OVER FLUSH WITH PAVEMENT.
- ALL PAVEMENT DEFECTS MUST BE CORRECTED WITHIN OR ADJACENT TO THE WORK ZONE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DEFECTS WITHIN THE IMMEDIATE VICINITY IF NYCDOT STREET & ARTERIAL MAINTENANCE CANNOT MAKE REPAIRS DUE TO PROJECT INTERFERENCE (AS DETERMINED BY NYCDOT).
- ALL EQUIPMENT, TRAILERS AND MATERIAL STORAGE MUST BE REMOVED.
- D. ALL RELOCATION WORK BY THE UTILITIES SUCH AS; CON EDISON, TELEPHONE, GAS AND CABLE COMPANIES SHALL PRECEDE THE CONTRACTORS' START OF WORK ON ALL AFFECTED ROADWAYS IN THE IMPACTED CONTRACT AREA.
- E. THE CONTRACTOR IS ADVISED THAT OTHER CONTRACTORS MAY BE WORKING IN THE GENERAL AREA DURING THE TERM OF THIS STIPULATION. IN WHICH EVENT, THE CONTRACTOR MAY REQUIRE MODIFICATIONS BY THE OCMC-STREETS.

OCMC FILE NO: REC-20-643 CONTRACT NO: MIBBNC04A

PROJECT: CONSTRUCTION OF BEST MANAGEMENT PRACTICES BMP NC-6 BOUNDARY AVENUE AND BMP NC-15 LACONIA AVENUE

- F. THE PERMITTEE IS NOT AUTHORIZED TO ENTER, OCCUPY OR USE ANY PUBLICLY-OWNED OR PRIVATELY OWNED, NON-PAVED, LANDSCAPE OR NON-LANDSCAPED LOCATION WITHOUT SPECIFIC WRITTEN PERMISSION. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A LIMITED-ACCESS ARTERIAL HIGHWAY, **WRITTEN** APPROVAL FROM THE NYCDOT OCMC-HIGHWAYS IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR PUBLIC PARK, **WRITTEN** APPROVAL FROM THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION OR NEW YORK CITY DEPARTMENT OF PARKS AND RECREATION IS REQUIRED. WHEN THE LOCATION IS WITHIN THE RIGHT-OF-WAY OF ANY OTHER JURISDICTION SUCH AS PRIVATE PROPERTY, STATE, FEDERAL ETC., IT IS THE PERMITTEE'S RESPONSIBILITY TO DETERMINE THE PROPERTY OWNER AND OBTAIN THE WRITTEN APPROVAL.
- G. THE PERMITTEE SHALL ADHERE TO THE NYCDOT BUREAU OF BRIDGES' SPECIAL PROVISIONS FOR LANDSCAPE PROTECTION, MAINTENANCE AND RESTORATION, ITEMS 1.18.15 THROUGH 1.18.19, WHENEVER AND WHEREVER ANY OF THE PERMITTEE'S ACTIVITIES OCCUR WITHIN A LIMITED ACCESS ARTERIAL HIGHWAY RIGHT - OF - WAY.
- H. NO DEVIATION OR DEPARTURE FROM THESE STIPULATIONS WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL FROM THE OCMC-STREETS. REQUEST FOR SUCH MODIFICATIONS SHALL BE SUBMITTED TO THE OFFICE OF THE OCMC-STREETS, NEW YORK CITY DEPARTMENT OF TRANSPORTATION, A MINIMUM OF TWENTY (20) DAYS IN ADVANCE FOR CONSIDERATION.
- I. FOR ANY CONSTRUCTION ACTIVITY RESULTING IN THE FULL CLOSURE OF A ROADWAY FOR MORE THAN 180 CONSECUTIVE CALENDAR DAYS, THE CONTRACTOR MUST PRODUCE AND SUBMIT A COMMUNITY REASSESSMENT, IMPACT AND AMELIORATION (CRIA) STATEMENT TO NYCDOT PLANNING AND OBTAIN THEIR APPROVAL BEFORE APPLYING FOR PERMITS, IN COMPLIANCE WITH THE PROVISIONS OF LOCAL LAW 24 STREET CLOSURE LAW.
- J. FOR THIS PROJECT THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL NECESSARY ADVANCE WARNING AND DETOUR SIGNS, TEMPORARY CONTROL DEVICES, BARRICADES, LIGHTS AND FLASHING ARROW BOARDS IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," THE TYPICAL SCHEMES INCLUDED IN THIS SPECIFICATION; AND AS ORDERED BY THE ENGINEER-IN-CHARGE AND THE OCMC-STREETS.
- K. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING HIS CONSTRUCTION SIGNAGE. THE IDENTIFICATION SHALL INCLUDE THE CONTRACTOR'S NAME, SPONSORING AGENCY NAME AND THE CONTRACT NUMBER. THE IDENTIFICATION SHALL BE PLACED ON THE BACK OF THE SIGN. THE LETTERING SHALL BE THREE (3) INCHES HIGH.
- L. THE OCMC-STREETS RESERVES THE RIGHT TO VOID OR MODIFY THESE STIPULATIONS SHOULD CONSTRUCTION FAIL TO COMMENCE WITHIN TWO (2) YEARS OF THE SIGNED DATE OF THESE STIPULATIONS.

GARY SMALLS

DIRECTOR OCMC-STREETS

HEBA GURGUIS PROJECT MANAGER OCMC-STREETS

EP7 (1.0) - PAGES GAS COST SHARING (EP-7) STANDARD SPECIFICATIONS

NOTICE

THE PAGES CONTAINED IN THIS SECTION REPRESENT THE GAS COST SHARING WORK THAT SHALL APPLY TO AND BECOME A PART OF THE CONTRACT.

(NO TEXT ON THIS PAGE)

TABLE OF CONTENT

I - NOTICE TO ALL BIDDERS; GAS COST SHARING WORK II

- GENERAL PROVISIONS; GAS COST SHARING WORK

- 1. General
- Gas Interferences And Accommodations
 2a. Water Main Accommodations
 2b. Sewer Accommodations
- 3. Quantity Overruns, EP-7 Funded Bid Items
- 4. Changes And Extra Work
- 5. Excavation
- 6. Backfilling And Street Restoration
- 7. Non-Responsive Bids
- 8. Minimum Clearances
- 9. Work By Facility Operator
- 10. Materials Furnished By Facility Operator
- 11. Liability And Insurance
- 12. Width And Depth Of Excavation
- 13. Depth And Crossing Angles Of Gas Facilities
- 14. Maintenance Of Traffic For Gas Work
- 15. Relocated Gas And Temporary Systems Installation
- 16. Role Of Company Inspector
- 17. Coordination With Gas Company

III - TECHNICAL SECTION

	SECTION 6.01	-	Trench Crossings; Support And Protection Of Gas Facilities And Services.	
	SECTION 6.02	-	Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Gas Interferences.	
	SECTION 6.02.1	-	Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With	
			Upstream Inverts Greater Than Six (6) Feet.	
	SECTION 6.03	-	Removal Of Abandoned Gas Facilities. All Sizes.	
	SECTION 6.03.1	-	Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes.	
			(For National Grid Work Only)	
	SECTION 6.03.1a	-	Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes.	
			(For Con Edison Work Only)	
	SECTION 6.04	-	Adjust Hardware To Grade Using Spacer Rings/Adaptors. (Street Repaving.)	
	SECTION 6.05		Adjust Hardware To Grade By Resetting. (Road Reconstruction.)	
	SECTION 6.06	-	Special Care Excavation And Backfilling.	
	SECTION 6.07	-	Test Pits For Gas Facilities.	
	SECTION 6.08	-	"No Text"	
	SECTION 6.09	-	Trench Excavation and Backfill for New Gas Mains and Services	
			(For National Grid Work Only)	
	SECTION 6.09a	-	Trench Excavation and Backfill for New Gas Mains and Services	
			(For Con Edison Work Only)	
IV - STANDARD SKETCHES; GAS COST SHARING WORK				

- NO. 1 Support Requirements For Gas Mains And Services Crossing Excavation Greater Than 4'-0" Wide At Any Angle
- NO. 1A Support Requirements For Gas Mains Over 16" Diameter Up To And Including 48" Diameter Crossing Excavation At Any Angle
- NO. 2 Typical Methods Of Measurement For Gas Crossings
- NO.3 Utility Crossings During Catch Basin Chute Connection Pipe Installation

NO.4 - Utility Crossings During Catch Basin Chute Connection Pipe Installation (Extra Depth) NO.5 - Gas Main Encroachment On And/Or Parallel To Excavation Of Unsheeted Trench

V - PRELIMINARY GAS WORK TO BE PERFORMED BY FACILITY OPERATOR VI

- LISTING OF APPROXIMATE LOCATIONS OF EP-7 BID ITEMS QUANTITIES

I - NOTICE TO ALL BIDDERS; GAS COST SHARING WORK

All prospective bidders are hereby advised that, pursuant to the "Gas Facility Cost Allocation Act", ("the Act"), the City of New York has entered into an agreement ("the Agreement") with the gas companies (Con Edison or National Grid (formerly KeySpan Energy Delivery)) operating in their respective areas of the City to "share" the cost of facility relocation and/or support and protection of facilities disturbed by proposed water and/or sewer and related City work specified in this contract. Therefore, bid items, specifications and estimated quantities for the incremental costs of support and protection of certain gas facilities have been included in this contract. The low bid for this contract shall be determined by examining each bid for all work to be performed under this contract including any work of support and protection of gas facilities to be performed. The Contractor shall not seek additional compensation from gas companies except as specifically set forth in its contract.

II - GENERAL PROVISIONS; GAS COST SHARING WORK

1. General:

The Contractor shall perform City work with interferences from existing live and abandoned gas facilities. This shall be defined as utility work. Therefore, this contract includes bid items, specifications and estimated quantities designed to fully compensate him/her for the incremental costs of supporting, protecting, providing accommodations and, avoiding disturbing gas facilities located in the streets shown on the contract drawings. In the event that any other provisions of this contract related to gas facilities (or private utilities) conflict with these provisions, these provisions shall supersede and govern all work related to gas facilities owned by the companies operating in the project area. All utility work, as defined in these specifications, including changes and additions thereto shall be paid solely by the City except when specified otherwise in this contract. Contractor hereby agrees that the facility operator shall not be liable to pay him/her for any work performed including extra utility work. Contractor agrees that its bid prices include all compensation for loss of productivity and efficiency, idle time, delays (including any delays occasioned by negotiation of a contract change), change in operations, mobilization, demobilization, remobilization, added cost or expense, lost of profit, other damages or impact costs that may be suffered by or because of utility work, or the presence of gas facilities in the proximity of City work and that it will not seek additional compensation for these items. All disputes shall be resolved as specified in the contract.

Pursuant to the Act, Agreement, and the New York City Administrative Code, the gas company(ies) has been directed by the Commissioner and is required to perform all maintenance, repairs, replacement, shifting, alteration, relocation, and/or removal work that are not part of this contract. By having bid on this contract, the Contractor understands and agrees that the Commissioner has preasserted any right the City has to require, including the issuance of any directives or so called "order outs" under the New York City Administrative Code, any or all gas companies to maintain, repair, replace, protect, support, shift, alter, relocate, and/or remove all gas facilities that are about to be disturbed by the City contract work. The issuance of additional such directives during the performance of the contract work, where necessary in the sole judgment of the Commissioner, shall be initiated by such Commissioner as set forth in the relevant sections of the Act and Agreement. Contractor further agrees to insert such requirements as set forth herein above into any contracts with its approved subcontractors so that its subcontractors also understand and agree to such contract requirements.

2. Gas Interferences And Accommodations:

During the performance of sewer and water main work funded by the New York City Department of Environmental Protection (NYCDEP), as instructed by the Engineer, the use of any applicable contract bid item is allowed in order to resolve and accommodate all gas facilities interferences with such City work, including the removal of contaminated soil in associated trench excavation. This is in addition to the specified EP-7 bid items in the contract. Payment for such accommodation shall be funded by EP-7 bid item "<u>UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS</u>" (F.S. Fixed Sum). The value of such accommodation shall be computed by multiplying the appropriate unit prices bid to the quantity of work performed, as determined by the Engineer, and applying the total amount thus to be paid

to EP-7 bid item "<u>UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS</u>". When EP-7 bid item "<u>UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS</u>" does not exist, such additional accommodation work shall be at no cost to the City but shall be a matter of adjustment between gas facility operator and Contractor. Private facilities, other than gas, that become in interference due to gas interferences accommodations shall also be accommodated, if so directed by the Resident Engineer, at no additional cost to the City and, provided that its owner agrees to be responsible for all additional costs to Contractor, otherwise, such facility shall be ordered by the City to be maintained, shifted, relocated or replaced by its owner at his/her expenses.

2a. Water Main Accommodations:

When water main construction is to be performed in this contract, Contractor shall be required, if warranted by field conditions, and at locations designated by the Resident or Borough Engineer, to change the vertical or horizontal alignment of water mains including but not limited to all additional labor, material, work method accommodations, furnishing, delivering and laying offset fittings and pipes, etc., necessary in order to complete water main installation and, avoid gas interferences in the project area, including street intersections. Typical work method accommodations shall include, but not be limited to, pier and plate, installation of filter fabric and select fill, etc. Such work shall be performed as directed by the Engineer and in accordance with contract specifications and latest edition of water mains standards and specifications.

2b.Sewer Accommodations:

When sewer construction is to be performed in this contract, Contractor shall be required, if warranted by field conditions, and at locations designated by the Resident or Borough Engineer, to change the horizontal alignment of sewer facilities (if possible) including but not limited to all additional labor, material, work method accommodations, furnishing, delivering and construction of additional manholes or modification of manholes/catch basins, extending chute connections, house connections, using alternate materials and methods, poured-in-place structures, etc., necessary in order to complete sewer installation and, avoid gas interferences in the project area, including street intersections. The term sewer facility shall include, but not be limited to, all sewer pipe and appurtenances, manholes, catch basins, catch basin chutes, etc. Such work shall be performed as directed by the Engineer and in accordance with contract specifications and latest edition of sewer standards and specifications.

3. Quantity Overruns, EP-7 Funded Bid Items:

No quantity overrun, in excess of one hundred twenty five (125) percent, shall be permitted for EP-7 funded bid items (gas) included in this contract, <u>except</u> when Resident Engineer determines that such overruns are caused by field modifications to planned City work, or approved construction methods, or contract scope changes. The Engineer will notify the gas facility operator in writing of overruns. The Contractor must invoice the gas facility operator for payment of all overruns, which will be paid by the gas facility operator at the contract bid price. Gas facility operator will be entitled to reimbursement by NYCDEP under established cost sharing procedures.

4. Changes And Extra Work:

This section is not applicable to work defined under "Emergency Reconstruction Contracts" or so-called "Where and When Contracts" since these projects, by definition, inherently encounter unanticipated gas facilities and cannot be pre-engineered. In all other cases, any contract changes proposed for City work shall also cover and include all associated changes to support and protection of gas facilities affected by such changes to City work. In all other cases where the Contractor finds that City work cannot be performed as planned and specified and/or, as approved because of a need to support, protect and/or alleviate interferences from gas facilities that were not listed and/or shown, or incorrectly shown in contract plans and specifications, he shall immediately notify the Resident Engineer and the facility operators' representative of his findings. Resident Engineer shall promptly examine such claims and determine whether or not such work is covered by contract bid items and /or specifications (contract bid items and specifications shall include city contract items as well as EP-7 items). The Resident Engineer shall also

examine the claim to determine if the application of EP-7 bid item "UTL-GCS-2WS - GAS INTERFERENCES AND ACCOMMODATIONS" is appropriate to resolve the claim. If upon examination, the Engineer determines that such field conditions were unanticipated (not shown and/or listed, or incorrectly shown in contract documents) and are not covered by bid items and contract specifications, he shall then direct the Contractor and the affected facility operator to negotiate the cost of supporting and protecting, and/or alleviating the impact on City work caused by such unanticipated gas facilities with each other with the understanding that the performance of City work shall continue during negotiations. If a cost agreement is reached, the Contractor and facility operator shall adjust such costs between themselves at no additional costs to the City contract. If the Contractor and affected facility operator do not reach an agreement concerning the price to be paid for the extra work within five (5) business days of the Engineer's directive to engage into such negotiations and, after considering: public safety and inconvenience, requirements of laws and regulations applicable to private utilities, integrity of all utility systems, including but not limited to sewer and water, gas, electric, telephone and, cable TV facilities, sound engineering practices, cost (long and short term) to all affected parties, and potential City work delays, then the Resident Engineer, depending on nature and severity of interferences with City work, shall either, direct the facility operator to relocate or replace its facilities at its own discretion and cost, reimbursable by NYCDEP under established gas cost sharing procedures or, direct the Contractor to perform the utility work on actual time, material and equipment costs basis pursuant to relevant contract requirements and amendments. Contract bid prices for any applicable items of work involved shall be applied, or converted to an allowance for time and material charges. Changes shall be for affected portions of utility work and, shall be processed with EP-7 funds.

5. Excavation:

All excavators shall notify the NYC/LI One Call Center at 1-800-272-4480 at least two (2) working days, not including the day of the call, but not more than ten (10) working days in advance of the start of any excavation work. The gas company(ies) will mark out its facilities within the project limits and provide Construction Inspector(s) during all excavation work in close proximity (within twelve (12) inches) to gas facilities. The Contractor shall exercise extreme caution when excavating in the vicinity of any gas facilities. Hand excavation shall be performed within twelve (12) inches of gas facilities. The Contractor prior to excavating underneath these facilities shall adequately support all gas facilities. Standard support details for gas facilities have been included in the specifications. Any damage to gas facilities shall be reported immediately to the gas company(ies). The Contractor shall be responsible for all cost associated with repairs made necessary by damages caused by his operations.

6. Backfilling And Street Restoration:

Backfilling operations and street restorations shall be in accordance with contract requirements.

7. Non-Responsive Bids:

Every gas (EP-7) bid item has a suggested "Not less than" value per unit indicated on contract bid sheet. Bids resulting in cost of less than suggested for EP-7 items are hereby prohibited and if submitted shall be considered NON-RESPONSIVE.

8. Minimum Clearances:

Clearance requirements for City work shall govern and supersede any clearance requirement of gas facility operator. Therefore, a minimum of twelve (12) inches clearance between private utilities and City water mains, sewers or related structures to be installed in this contract shall be maintained. When this clearance is not attainable, the Resident Engineer may allow a minimum of four (4) inches clearance. With less than twelve (12) inches clearance a neoprene/polyethylene shield (to be provided by facility operator) shall be installed as part of all work item specifications. However, if Resident Engineer determines that City work cannot be performed within allowable clearance and no reasonable City accommodation (no-cost change to City work) is possible, the City shall direct the facility operator to remove, relocate, shift, or alter their facility(ies) pursuant to the New York City Administrative Code.

9. Work By Facility Operator:

The facility operator may find it necessary to perform the following types of work during performance of City work: accommodating a contractor's request for gas facilities modifications (in order to facilitate City contractor's proposed construction method) or, remedial and emergency work on gas facilities proper with their own resources and materials if an approved method of construction for City work causes unanticipated disturbances to gas facilities or, replacing defective gas facilities when they are exposed by the Contractor and their actual conditions are observable by the facility operator. Also included in the above category of defective gas facilities are: the presence of environmental contaminants attributable to the gas facility in or around gas facilities. If such work is deemed required by the facility operator or if facility operator is directed by the City to address such deficiencies at any time during the course of construction, the Contractor shall modify the construction schedule at no cost to the City and allow the facility operator (in cases of accommodations) or, Contractor (in cases of defective gas facilities) due to such gas work, if any, shall be the responsibility of the parties involved and not of the City. Such costs shall be a matter of adjustment between the Contractor and the facility operator.

10. Materials Furnished By Facility Operator:

It shall be the Contractor's responsibility to inspect material to be installed by him immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional costs to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

11. Liability And Insurance:

Notwithstanding the provisions of this contract, the existing division of liabilities to third parties shall remain the same as between the City and the company. Therefore, it is specifically agreed by the City, company and Contractor (by bidding on this contract) that for the purpose of any liabilities to third parties, that the City contractor performing work directly and physically relating to gas company facilities in this project, shall be deemed an agent of the company and not an agent of the City, the New York City Municipal Water Finance Authority, or the New York City Water Board. Contractor shall include the company as an additional insured on all insurance policies maintained to comply with the City's insurance requirements.

12. Width And Depth Of Excavation:

Contractor shall not be authorized to deliberately change trench or excavation widths and/or depth specified without Engineer's approval. Enlargement of any side of excavation up to eighteen (18) inches beyond pay limits (or inside face of sheeting) requested by the Contractor for the installation of certain types of sheeting may be granted. However, such enlargements or those greater than allowable shall not be approved when, in the sole judgment of the City, field conditions allow the water mains and sewer work to be performed within the limits specified and, the sole purpose of such enlargement request is to impact adjacent utilities (public or private) whose support and protection are part of this contract. Any approval shall be given at no additional cost to the City contract, including EP-7 funding, and all costs associated with unauthorized enlargements shall be the sole responsibility of the Contractor.

13. Depth And Crossing Angles Of Gas Facilities:

Where gas facilities are shown (or specified as) crossing proposed alignment of sewers, water mains, catch basins and chute connections or any other proposed excavations at specific angles (as measured off plans or sketches or specified in contract), it shall be understood that actual field measurements may deviate (plus or minus) forty-five (45) degrees from those shown or specified. The cover, or depth from street surface to top of facilities, shall be as shown or specified in contract documents, no deviation is to be assumed. Where gas facilities are not shown on contract documents, but their support and protection are otherwise included in this contract then, all references to facilities crossing at "various angles and depth" in the gas sections shall mean that such facilities are crossing sewer, water, catch basin and, catch basin chute, and other excavations at a ninety (90) degree angle to the proposed sheeting line or side of

excavation (for unsheeted trenches) with an allowable deviation of forty-five (45) degrees in any direction, except for catch basin chute excavation where the allowable deviation shall be sixty (60) degrees. Where the cover is not noted or specified, the bottom face of such facilities shall be assumed to be crossing catch basin chutes at a depth of three (3) foot eight (8) inches or less from the street surface. Paragraph No. 2 above shall apply in cases of distribution water main construction. Appropriate bid items and specifications are provided for cases where angle and depth are greater than stated above. This section also applies to work defined in "Emergency Reconstruction Contracts" or so-called "Where and When Contracts". These contracts are not pre-engineered and consequently have no drawings, sketches or determined locations and so, gas facilities encountered will be crossing existing and proposed sewer, water, catch basin/catch basin chutes and all appurtenances at various angles and depths.

14. Maintenance Of Traffic For Gas Work:

All work pertaining to gas bid items and specifications shall be performed within the contract maintenance of traffic plan as specified in the contract document. The bid price for the Maintenance and Protection of Traffic shall cover all work pertaining to gas items. The City shall make compensation for additional maintenance and protection of traffic items in connection with gas item of work only when such additional work is deemed reasonable and necessary by the Resident Engineer and is approved by him prior to its performance.

15. Relocated Gas And Temporary Systems Installation:

In cases where the Contractor is allowed to select the location for temporary construction such as, installation of dewatering headers, wells, well points, etc., he shall not disturb any gas facilities shown on sketches provided in this section. The only exception shall be, if the affected gas company agrees to such relocation and provided that the cost of such relocation is a matter of adjustment between the company and Contractor, and at no cost to the City.

16. Role Of Company Inspector:

In any case in which the City elects to perform some or all support and protection work with its own employees, personnel or contractors, the facility operator shall provide onsite inspectors to approve and certify such support and protection work (exclusive of City accommodations) performed by the City's own employees, personnel, and contractors. Facility operator's inspectors are not authorized to direct City contractor during the performance of contract work. They shall act through the City Resident Engineer and provide him/her required approvals and certifications, prior to preparing partial payments of EP-7 items, in a format and frequency to be prescribed by the appropriate City Head of Construction.

17. Coordination With Gas Company:

The Contractor shall be required to notify the gas company(ies), in writing, at least two (2) weeks prior to the start of final paving in order to allow companies to complete any unfinished gas work located within the area to be paved. Every effort shall be made to maintain gas service with minimum inconvenience to the public.

III - TECHNICAL SECTION

SECTION 6.01 - Trench Crossings; Support And Protection Of Gas Facilities And Services.

1. Description:

Under this section, the Contractor shall provide all labor, materials, equipment, and incidentals required to

support and/or protect the integrity of gas mains, services and appurtenances of any sizes, configurations, and operating pressures crossing trench excavations above subgrade for planned construction of sewers and water mains facilities. A gas service shall be defined as a gas pipe of three (3) inches in diameter or less branching from the main to a customer pick up point or property valve box. A gas main may be any size pipe that is part of a distribution or transmission network other than services described above. Crossings shall be defined as gas facilities spanning the width of excavation (one side to the other side). These crossings may be at various angles and depth as shown on "Gas Cost Sharing Work Standard Sketches Nos. 1 and 1A", and as specified in "General Provisions; Gas Cost Sharing Work Paragraph No. 13" and, at the locations shown or listed in contract documents. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with contract specifications, plans, and at the directions of the Resident Engineer in consultation with the authorized representatives of the facility operator.

- 2. Method Of Construction:
- A. Protection: In general, the gas facilities shall be protected as required by New York State Industrial Code 753. In particular, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) directly below the pavement base to expose the gas facilities (marked out by facility operators) and to ascertain the clearances and cover of the facilities with respect to the proposed excavation. Upon exposing the affected facilities sufficiently, at the discretion of the Resident Engineer, to ascertain the foregoing, Contractor shall be permitted to proceed with a combination of hand and machine excavation, as appropriate, outside a zone of protection whose limit shall be defined as a perimeter located twelve (12) inches from the outside face of each gas facility crossings (See "Gas Cost Sharing Work Standard Sketch No. 2"). If the facilities are in direct interference with City work, meaning that "Minimum Clearances" described in "General Provisions; Gas Cost Sharing Work Paragraph No. 8" cannot be maintained, and excavation has to be temporarily or permanently abandoned then this particular location shall become a test pit and dealt with as specified in Section 6.07, and "General Provisions; Gas Cost Sharing Work Paragraphs Nos. 2 and 8".
- B. Support: Gas mains or services crossing excavations equal or less than four (4) feet wide are generally self supporting, unless field conditions as determined by the Resident Engineer require otherwise. The support requirements for gas mains and services crossing excavations greater than four (4) feet wide shall be as shown on the attached "Gas Cost Sharing Work Standard Sketch No. 1" and Contractor shall use sheeting methods that permit the maintenance of gas facilities in their existing locations and configurations. Alternate methods equivalent to those shown on the sketch or accommodations by the facility operator proposed by the Contractor in order to facilitate the execution of the specified work shall be allowable, provided that prior approval is obtained by the Contractor from the Engineer and the facility operator. The support and protection of gas facilities crossings shown on plans, drawings, listings or otherwise identified in this contract shall not be circumvented with the issuance of so called "order outs".

3. Method Of Measurement:

The Contractor shall be paid for supporting and/or protecting gas facilities crossing trench excavations under the appropriate bid items covered by this section. The Contractor shall be directly responsible to the facility operator for the total cost of using any alternate method requiring the use of resources owned by the facility operator. Regardless of the method used, the City shall pay the bid price for the appropriate support and/or protect item of work. The average rate charged by the facility operator for alternate support and protection work such as, disconnecting and reconnecting gas services is listed in attached "Schedule GCS-A".

4. Payment Restrictions:

These items shall not be paid for: gas services crossing unsheeted water main trench excavation; abandoned gas main/services identified by facility operator; gas mains/services crossing trench excavations for fire hydrant branch connections pipes, catch basins and/or chutes (sewer drain pipe), house sewer and/or water services; gas facilities encroaching any face of excavation for sewer and/or

water construction, all of which are covered under other contract sections. Also this item shall not be paid for new gas mains and services crossing water trenches when trenching for such new facilities has been performed by the Contractor in common with trench excavation for City work (overlapping trench limits). The cost of supporting and protecting such gas facilities crossings shall be deemed included in the cost of trench excavation for the new gas facilities. This payment restriction shall apply even if such common trench gas excavation is not part of the contract. The prices bid for items covered by this section represent full compensation to Contractor to completely perform the work described. No other bid items shall be combined with these items in order to pay for gas main and/or services crossing excavations specified herein.

5. Method Of Payment:

Each (Ea.) gas facility crossing trench excavation as described in these specifications shall be counted for payment.

6. Price To Cover:

The cost of timber/steel supports installed for gas facilities shall be included in the bid price. The bid price for each crossing shall also cover all additional supervision, labor, material (except those provided by the facility operator), equipment and insurance necessary to completely maintain the gas facilities without disruption of service to the customers and in accordance with contract plans, specifications and facility operator standards. The price shall also include: changes of method of operations; sheeting modifications where necessary to accommodate the gas facilities crossings; installation and removal of water pipe under gas facilities (so called "snaking"); extra care during excavation (including hand excavation under existing single and multiple gas facilities); extra backfilling and compaction around, over and under gas facilities; installation and removal of sheeting around gas facilities; associated maintenance and protection of traffic; barricades; and traffic plates that may be required to temporarily close and/or complete the work.

SECTION 6.02 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Gas Interferences.

1. Description:

Under this item, the Contractor shall provide all labor, materials, equipment, insurance, and incidentals for the extra excavation associated with the installation of catch basin sewer drain pipes (chute) under gas facilities of various sizes crossing the trench excavation at various angles and depth at the locations shown in the contract documents and also, for the support and protection of these facilities during associated excavation and backfill operations. The gas company operating in the area, (facility operator), owns these facilities.

2. Method Of Measurement:

The bid price shall be per location (Each) where extra excavation is required when catch basin sewer drain pipes are installed at an upstream invert depth lower than four (4) feet (up to a maximum of six (6) feet) from the proposed pavement grade because the bottom faces of interfering gas mains and appurtenances are located at a depth greater than three (3) foot eight (8) inches from proposed pavement surface (See "Gas Cost Sharing Work Standard Sketch No. 4").

3. Method Of Construction:

Incremental cost responsibility for chute excavation is determined by the first private facility encountered starting from catch basin structure proper and that prevents the installation of the chute connection at an upstream cover less than or equal to three (3) feet or any other minimum cover required to avoid City facilities (e.g. water, sewer, etc.) as directed by the Resident Engineer.

4. Payment Restrictions:

This item shall not apply and related bid item shall not be paid in cases where:

- A. Upstream invert chute is more than six (6) feet deep because of gas facilities.
- B. Chute cannot be installed above existing gas facilities because of interferences with other private facilities that are not otherwise covered under this contract, regardless of upstream invert depth.

The above cases shall be at no cost to the City, but shall be a matter of adjustment between the Contractor and the facility operator(s).

5. Price To Cover:

The bid price shall cover the additional cost of all additional supervision, labor, materials, equipment and insurance, to complete the installation of catch basins and associated sewer connections in accordance with the contract plans and specifications. The price shall include: excavation by hand around and under single and multiple gas facilities; locating, supporting and protecting gas facilities; backfilling and all other items necessary to perform all work incidental thereto including: installation and removal of drain pipe under gas facilities ("snaking"); widening of trenches to facilitate the above work; subsequent additional backfill and pavement restoration; modifying precast catch basin window to accommodate connection; changing sheeting method and configuration to accommodate gas facility crossings; maintenance and protection of traffic; barricades; and installation of traffic plates that may be required to temporarily close and/or complete the work. The price shall not include removal of ledge rock and/or excavation of boulders in open cut.

SECTION 6.02.1 - Extra Excavation For The Installation Of Catch Basin Sewer Drain Pipes With Upstream Inverts Greater Than Six (6) Feet.

1. Description:

Under this item, the Contractor shall provide all labor, materials, equipment, insurance and incidentals for the extra excavation of catch basin chutes where the upstream invert is greater than six (6) feet under gas facilities of various sizes crossing the trench excavation at various angles and depth at the locations shown in the contract documents or as determined by field conditions and also, for the support and protection of these facilities during the associated excavation, sheeting and backfilling operations.

2. Method Of Measurement:

The bid price shall be per location (Each) where extra excavation and sheeting is required when the catch basin chute installed at an upstream invert depth lower than six (6) feet from the proposed pavement grade because the bottom faces of the interfering gas mains and appurtenances are located at a greater depth than three foot eight inches from the proposed pavement surface only.

3. Method Of Construction:

Incremental cost responsibility for chute excavation is determined by the first private facility encountered during such excavation when initiated from catch basin structure and that prevents the installation of the chute at an upstream cover less than or equal to three (3) feet or any other cover required to avoid City facilities as directed by the Resident Engineer.

4. Payment Restriction:

This item shall not apply and related bid item shall not be paid in cases where:

Upstream invert chute is less than or equal to six (6) feet deep because of gas facilities. Section 6.02 shall be paid.

5. Price To Cover:

The bid price shall cover the additional cost of all supervision, labor, materials, equipment and insurance to complete the installation of catch basin and associated sewer connections in accordance with the contract plans and specifications. The price shall include: excavation by hand around and under single and multiple gas facilities; locating, supporting and protecting gas facilities incidental thereto; widening of trenches to facilitate the above work; subsequent additional backfilling and pavement restoration; modifying pre-cast basin window to accommodate connection; the installation of catch basin with deeper sumps as specified; additional sheeting and changes in sheeting method and configuration to accommodate gas facility crossings; maintenance and protection of traffic; barricades; and installation of traffic plates that may be required to temporarily close and/or complete the work.

SECTION 6.03 - Removal Of Abandoned Gas Facilities. All Sizes.

1. Description:

Under this section the Contractor shall provide all labor, materials, equipment, insurance and, incidentals required for the removal of abandoned gas mains, services, or appurtenances thereof, located within the street shown on the contract plans, owned by gas company operating in the project area (facility operator), used or to be used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural or manufactured or mixture of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distributing or furnishing of gas in enclosed containers. Such removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work.

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and, Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities to be removed by the Contractor. However, facility operator may prefer to make this test during performance of City work, in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any resulting from this choice shall be a matter of adjustment between the Contractor and facility operator only, and at no cost to the City.

3. Restrictions:

The facility operator shall be solely responsible for its contaminated gas facilities, surrounding contaminated soil and their disposal and abatement procedures, unless contract bid items are applicable and provided for such work. In such cases, the quantity removed shall be charged to EP-7 bid item "<u>UTL-</u> <u>GCS-2WS -</u> <u>GAS INTERFERENCES AND ACCOMMODATIONS</u>" at the City bid prices.

4. Method Of Measurement:

Abandoned gas pipeline removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment, and insurance necessary to complete this work in accordance with the contract plans and specifications, including excavation by hand around and under other City and facility operator owned properties and, where necessary, support and protection of such properties. The price shall also cover breaking, cutting, and/or burning of abandoned gas pipes and their disposal from the site; sealing open ends remaining in the excavation with concrete or caps (caps to be provided by the facility operator) and backfilling of the area where the pipeline has been removed with clean backfill. The price shall also include any required dump charges. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and restoration associated with abandoned gas facilities removal, all of which are covered under Section 6.06.

SECTION 6.03.1 - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (For National Grid Work Only)

1. Description:

Under this section the Contractor shall provide all labor, materials, equipment, insurance and, incidentals required for the removal of abandoned gas mains, services or appurtenances thereof, located within the street shown on the contract plans, owned by the gas company operating in the project area (facility operator), used or to be used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural or manufactured or mixture of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distributing or furnishing of gas in enclosed containers. Such removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work. These gas facilities may be coated with Coal Tar Wrap and so, may require special handling and disposal methods as specified in National Grid Standard Operating Procedure 12-2, Coal Tar Wrap Handling and 12NYCRR56.

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on the facility operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and, the Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities to be removed by the Contractor. However, the facility operator may prefer to make this test during performance of City work, in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any, resulting from this choice shall be a matter of adjustment between the Contractor and the facility operator only, and at no cost to the City contract. Should such investigation result in the determination that the abandoned gas facilities do not contain Coal Tar Wrap then the removal of said facilities shall be covered under separate item (See Section 6.03).

3. Requirements:

The City Contractor shall excavate abandoned gas facility sufficiently, either in its entirety, or at locations determined by Contractor to allow the removal of Coal Tar Wrap (if present on the abandoned gas facility) and to facilitate the safe extraction of manageable lengths of abandoned pipe without damage to adjacent facilities, utilities or City structures either parallel to or crossing above or below abandoned gas facility. The Contractor is to allow access to the designated cutting points within the Contractor's trench by authorized National Grid personnel who will remove the Coal Tar Wrap as per National Grid procedures. This work by National Grid personnel shall be performed in a timely fashion and shall not unduly impede the Contractor's progress and/or productivity. Upon completion of the coating removal, the Contractor shall be allowed to cut, burn or grind the gas facility and remove the section of abandoned pipe. The

Contractor at a site designated by the Contractor shall stockpile the removed pipe. The facility operator will be responsible to provide trucking and disposal services with its own personnel and shall remove the stockpiled pipes during off hours or during such time as agreed to by the Contractor. Since the pipe removed will remain the property of the facility operator and is to be disposed of by the facility operator, the facility operator shall be responsible for any required notifications, filings, dump charges and incidentals associated with the disposal of abandoned gas facilities found to contain Coal Tar Wrap.

4. Method Of Measurement:

Abandoned gas pipeline removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment and insurance necessary to complete this work in accordance with the contract plans and specifications, including excavation by hand around and under other City and facility operator owned properties and, where necessary, the support and protection of such properties. The cost shall also include hand excavation in the area(s) of proposed abandoned pipe cut(s), cutting and/or burning of abandoned gas pipes and stockpile of removed sections of abandoned pipe and associated maintenance and protection of traffic, blocking and temporary fencing if required. The unit price shall also cover sealing open ends remaining in the excavation with concrete or end caps (end caps to be provided by the facility operator) and backfilling of the area where the abandoned pipeline has been removed with clean backfill material. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and/or restoration (temporary and permanent) associated with abandoned pipe removal ("lost trench"), all of which are covered under separate Section 6.06. The price shall also include allowance for any loss of productivity by the Contractor due to required facility operator work to remove pipe coating and prepare pipe for cutting as well as any change in Contractor's excavation method, additional trucking and/or stockpiling costs.

SECTION 6.03.1a - Removal Of Abandoned Gas Facilities With Possible Coal Tar Wrap. All Sizes. (For Con Edison Work Only)

1. Description:

Under this section the Contractor shall provide all labor, material, equipment, insurance and, incidentals required to prepare abandoned gas mains, services and appurtenances thereof located within the street shown on contract plans, owned by the gas company operating in the project area (facility operator), for removal due to interference with proposed City work. These abandoned gas facilities were, at one time, used for or in connection with or to facilitate the conveying, transportation, distribution or furnishing of gas (natural, manufactured or a combination of both) for light, heat, or power, but does not include property used solely for or in connection with business of selling, distribution or furnishing of gas in enclosed containers. Such preparation for removal shall include only abandoned gas facilities that interfere with (i.e. cause additional work) City work. These gas facilities may be coated with Coal Tar Wrap which may contain asbestos or PCB's and so, may require special handling and disposal methods as specified in Con Edison - ASBESTOS MANAGEMENT MANUAL, CHAPTER 6 - ASBESTOS WORK PROCEDURES, SECTION 06.04 - COAL TAR WRAP REMOVAL. For under 25' (feet) in length and an approved NYC-DEP variance for over 25' (feet).

2. Determination Of Operating Status Of Gas Facilities:

The Contractor shall notify facility operator, as required by New York State Industrial Code 753. Gas Facilities shall not be removed without the approval of the facility operator whose authorized representative shall certify in writing (specific facility or area wide facilities certification) and in a timely manner acceptable to the Resident Engineer that abandoned facilities are free of combustible gas and any other environmental contaminants prior to removal. The Resident Engineer shall rely on the facility

operator's certification. The facility operator may request the excavation of test pits (See Section 6.07) for this determination ahead of City work and Contractor shall provide safe access, facilitate and permit facility operator to enter test pit excavations for the purpose of testing gas facilities. However, the facility operator may prefer to make this test during performance of City work in order to issue the above certification. This shall be permitted provided that it is agreed that additional costs, if any, resulting from this choice shall be a matter of adjustment between the Contractor and the facility operator only, and at no cost the City contract. Should such investigation result in the determination that the abandoned gas facilities do not contain Coal Tar Warp then the removal of said facilities shall be covered under separate item (See Section 6.03).

3. Requirements:

The Contractor shall excavate abandoned gas facility sufficiently, either in it's entirety, or at locations determined by Contractor to allow the removal of Coal Tar Wrap (if present on the abandoned gas facility) and to facilitate the safe extraction of manageable lengths of abandoned pipe without damage to adjacent facilities, utilities or city structures either parallel to or crossing above or below abandoned gas facility. The Contractor is to allow access to the designated cutting points within the Contractors trench by authorized Con Edison personnel who will remove the Coal Tar Wrap as per Con Edison and/or NYC-DEP approved procedures. This access shall conform to all applicable codes, rules & regulations. This work by Con Edison personnel shall be performed in a timely fashion and shall not unduly impede the Contractors progress and/or productivity. Upon completion of the coating removal, the Contractor shall be allowed to cut, burn or grind the gas facility and remove the section of abandoned pipe. Contractor shall designate a specific site to stockpile those removed pipes. The facility operator will be responsible to provide trucking and disposal services with its own personnel and shall remove the stockpiled pipes during off hours or during such time as agreed to by the Contractor. Since the pipe removed will remain the property of the facility operator and is to be disposed of by the facility operator, the facility operator shall be responsible for any required notifications, filings, dump charges and incidentals associated with the disposal of abandoned gas facilities found to contain Coal Tar Wrap.

4. Method Of Measurement:

Abandoned gas facility removal shall be measured for payment per linear foot of pipe and appurtenances removed.

5. Price To Cover:

The price shall cover all additional cost of supervision, labor, materials, equipment and insurance necessary to complete this work in accordance with the plans and specifications, including, but not limited to, excavation by hand around and under other City and facility operator owned properties and, where necessary, the support and protection of such properties. The cost shall also include hand excavation in the area(s) of proposed abandoned pipe cut(s), cutting and/or burning of abandoned gas pipes and stockpile of removed sections of abandoned pipe and associated maintenance of traffic, blocking and temporary fencing if required. The unit price shall also cover sealing open ends remaining in the excavation with concrete or end caps (end caps to be supplied by facility operator) and backfilling of the area where the abandoned pipeline has been removed with clean backfill material. This item does not include any type of extra excavation, backfilling, compaction, pavement removal and/or restoration (temporary and permanent) associated with abandoned pipe removal ("lost trench"), all of which are covered under separate Section 6.06. The price shall also include allowance for any loss of productivity by the Contractor due to required facility operator work to remove pipe coating and prepare pipe for cutting as well as any change in Contractor excavation method, additional trucking and/or stockpiling costs.

SECTION 6.04 - Adjust Hardware To Grade Using Spacer Rings/Adaptors. (Street Repaving.)

1. Description:

Under this section, the Contractor shall provide all labor, supervision, materials, equipment, insurance and incidentals required to adjust to final grade gas street surface hardware located within the contract area boundaries shown on the plans. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in concurrence with authorized representative of the facility operator.

2. Materials:

The facility operator shall furnish and deliver all prefabricated hardware parts required. These include adaptors for the grade adjustment proper and new street hardware if existing ones are found to be defective, all in accordance with the facility operator standards and City rules and regulations. The Contractor shall notify the facility operator of the installation schedule at least three (3) business days before materials are required on the site. Should the facility operator fail to deliver the necessary material according to any schedule mutually agreed upon by the Contractor and facility operator, the City shall not be responsible for any delays attributable thereto, nor for the failure of delivery of such materials. On project where material storage is not permitted on site, the facility operator shall deliver the required material to the Contractor's yard and it shall be the Contractor's responsibility to transport the material to the work site when needed for installation. It shall also be the Contractor's responsibility to inspect the materials to be installed by him immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional expense to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

3. Method Of Measurement:

The Contractor shall be paid for each six (6) inch round box and/or nine (9) inch square box adjusted to grade regardless of adjustment height requirements.

4. Price To Cover:

The unit price bid for this item shall include all additional labor, supervision, insurance, equipment and, material (except those to be provided by the facility operator), required to adjust each box to grade as required in the contract plans and specifications. The bid price shall also include the removal of existing frames and covers from existing facilities to be salvaged and returned to the facility operator and, all material transportation from the Contractor's material storage yard to the work site. In addition the bid price shall include "chipping" around existing box using appropriate means and methods where grinding is required.

SECTION 6.05 - Adjust Hardware To Grade By Resetting. (Road Reconstruction.)

1. Description:

Under this item, the Contractor shall provide all labor, supervision, materials, equipment, insurance and incidentals required to adjust to the proposed grade gas street surface hardware located within the contract area boundaries shown on the plans. The gas company operating in the area, (facility operator), owns these facilities. The work shall consist of either building up or lowering or resetting the casting by removing the existing frame and cover building up or decreasing the existing installation, replacing the frame and/or cover if damaged or worn out, as determined by the Resident Engineer, with a new frame and/or cover furnished by the owner, and setting the frame and cover to new elevation. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer.

2. Materials:

The facility operator shall furnish and deliver all new hardware parts required. The Contractor shall furnish materials such as mortar, bricks and concrete in compliance with contract requirements. At locations where high-early strength concrete is required under this contract to be placed adjacent to gas facilities, then the requirement for concrete shall be high-early strength complying with the current New York State Department of Transportation, Standard Specifications for Class F concrete. Existing castings may be replaced as required and deemed necessary by the Engineer and by City rules and regulations. The Contractor shall install the new castings of various sizes furnished by the facility operator. The Contractor shall notify the facility operator of the installation schedule at least three (3) business days before materials are required on the site and, shall provide off-loading services to the facility operator. Should the facility operator fail to deliver the necessary material according to any schedule mutually agreed upon by the Contractor and facility operator, the City shall not be responsible for any delays attributable thereto, nor for the failure of delivery of such materials. Such delays shall be a matter of adjustment between the Contractor and the facility operator. On project where material storage is not permitted on site, the facility operator shall deliver the required material to the Contractor's yard and it shall be the Contractor's responsibility to transport the material to the work site when needed for installation. It shall also be the Contractor's responsibility to inspect the materials to be installed by him, immediately upon delivery and advise the facility operator through its authorized representative, of all damaged materials. The Contractor at no additional expense to the City or the facility operator shall replace any material that is damaged or lost after the Contractor's inspection.

3. Methods Of Construction:

The Contractor shall remove and reinstall existing castings or install new castings to the proposed grade. Setting and resetting the castings shall be done with mortar and brick according to the standards of the facility operator. Work shall be performed in a workmanlike manner. Castings that are deemed unacceptable for resetting shall remain the property of the facility operator and he shall be responsible for their removal and proper disposal from site. No traffic shall be allowed on adjusted street hardware until permitted by the Engineer.

4. Method Of Measurement:

The Contractor shall be paid for each gas hardware adjusted to grade regardless of size or adjustment height requirements (up or down).

5. Price To Cover:

The unit price bid for this item shall include all additional labor, supervision, insurance, equipment and, material (except those to be provided by the facility operator), required to adjust each gas hardware to grade as required in the contract plans and specifications. The bid price shall also include the removal of existing frames and covers from existing facilities; building up the existing installations with bricks and mortar, or lowering the existing installation by removing bricks and mortar; replacing damaged frames and/or covers with new frames and/or covers furnished by the facility operator; setting the frames and covers to the new elevations; protect existing installations; repair minor structural damages to existing installations prior to resetting frames; unloading of furnished castings at the Contractor's yard and transporting castings from the Contractor's yard to the job site as required; completing the work in accordance with the contract plans, specifications and, at the directions of the Engineer. In addition the bid price shall include "chipping" around existing gas facilities using appropriate means and methods where grinding is required.

SECTION 6.06 - Special Care Excavation And Backfilling.

1. Description:

Under this section, the Contractor shall provide all labor, materials, equipment, insurance and incidentals required to support and protect the integrity of live gas facilities including mains, services, related structures and appurtenances during excavations. The gas company operating in the area, (facility operator), owns these facilities. The work shall be performed in accordance with the contract plans, specifications and at the directions of the Resident Engineer in consultation with authorized representatives of the facility operator.

2. Applicability Of Section:

This section shall apply to live gas facilities of various sizes located within two (2) feet of any face of unsheeted excavation, (unsheeted excavation refers to any excavation performed for city work and includes excavations performed that are to be subsequently sheeted using approved methods) and paralleling or, encroaching any face of excavation. Also, for crossings greater than forty-five (45) degrees and/or located at a cover depth greater than five (5) feet from existing street surface. Parallel facilities are not exposed at any time during excavation (See "Gas Cost Sharing Work Standard Sketch No. 5"). Encroaching facilities are partially exposed inside the limit of excavation (See "Gas Cost Sharing Work Standard Sketch No. 5"). This section shall also apply to gas facilities crossing catch basins excavation, and catch basins sewer connections (chutes) trench excavation only when extra depth (covered in other section), is not required for chutes installations because of such utilities interferences (See "Gas Cost Sharing Work Standard Sketch No. 3"). This section shall also apply to gas services (if shown or otherwise listed in contract documents) crossing unsheeted excavations for water mains, gas facilities crossing fire hydrant branch connections, house sewer and/or water service connections excavations. This section shall also apply for so called "loss trench", as described further, and for additional excavation (pavement and/or soil). backfilling, compaction, roadway base and pavement restoration due to abandoned gas facilities, only if removed by Contractor. If operating status of gas facilities cannot be determined prior to excavation then such facilities shall be considered live and this section shall fully apply. The excavation around fully exposed live gas facilities along and within limits of excavation (not crossings) shall be covered by this section also (not shown on "Gas Cost Sharing Work Standard Sketch No. 5"), however the support requirement, if any is required, of such facilities is beyond the scope of these specifications and therefore shall be the responsibility of facility operator to determine and prescribe, at no cost to the City contract, but shall be a matter of adjustment between the Contractor and facility operator.

3. Payment Restriction:

No special care excavation shall be paid for abandoned gas facilities paralleling and/or encroaching excavation and therefore are not in direct interference with City work. Except as allowed in this section, the bid item specified under this section shall not be used in combination with items covered under other sections for work done due to a particular gas facility. This item shall not be paid for new gas facilities when trenching for such new facilities has been performed by the Contractor of record in common with trench excavation for City Work (overlapping trench limits). The cost of excavating with care as defined in this section shall be deemed included in the cost of trench excavation for the new gas facilities. This restriction shall apply even if such gas common trench excavation is not part of the contract. If facilities are in direct interference with City work, meaning that "Minimum Clearances" described in "General Provisions; Gas Cost Sharing Work Paragraph No. 8" cannot be maintained and excavation has to be temporarily or permanently abandoned then this particular location shall become a test pit and dealt with as specified in Section 6.07 and "General Provisions; Gas Cost Sharing Work Paragraphs Nos. 2 and 8".

4. Method Of Construction:

All excavation in the vicinity of gas facilities shall be as required by NYS Industrial Code 753. Where these facilities are paralleling and located two (2) feet or less from the limits of the proposed excavation, the Contractor shall use hand excavation methods (pick and shovel or hand held power tools) to ascertain

the clearances of these facilities with respect to the proposed excavation. Once the location of these facilities with respect to the proposed excavation is verified to the satisfaction of the Resident Engineer, the Contractor shall then proceed with a combination of hand and machine excavation as required preserving the integrity of the facilities. The installation of timber supports or underpinning, when soil foundation cannot fully support partially exposed pipes, may be required to prevent pipe movement as directed by the Resident Engineer.

5. Method Of Payment:

The unit price for this work item shall be based on cubic yard (CY) of average excavation with care and, is to be considered as an incremental cost for performing City work with gas facilities interferences.

- 6. Method Of Measurement:
- A. For Paralleling Facilities: Volume calculated as: Depth as measured from existing street surface to the bottom of unsheeted trench excavation allowable by OSHA regulations, multiplied by, the width measured as one (1) foot from the face of excavation toward the center of excavation, multiplied by the length of parallel facility, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5"). The gas facility is no longer considered to be in interference once sheeting has been installed, therefore no further compensation for paralleling facilities as described above will be made.
- B. For Encroaching Facilities: Volume calculated as: Depth of trench as allowable by OSHA, maximum up to five (5) feet multiplied by, the width of partially exposed pipe plus one (1) foot, multiplied by the length of facility encroachment, divided by twenty-seven (27) cubic feet per cubic yard (See "Gas Cost Sharing Work Standard Sketch No. 5").
- C. Fully Exposed Gas Facilities: (Not shown on "Gas Cost Sharing Work Standard Sketch No. 5") along and inside trench and/or crossing trench at an angle greater than forty-five (45) degrees and/or a cover depth greater than five (5) feet from the existing street surface. The volume shall be measured as the depth of trench excavation multiplied by the distance measured along the sheeting line between two (2) points of intersections of the gas facilities and the sides of trench excavation, multiplied by the width of trench excavation.
- D. For Additional Excavation And Restoration Due To So Called "Loss Trench", When The Integrity Of Pavement And Soil Above And Around Existing Live Gas Facilities Cannot Be Maintained Due To Its Lack Of Cohesiveness: Volume shall be calculated as: Depth of unsheeted trench excavation multiplied by width measured as distance of facility from closest edge of unsheeted excavation plus, width of facility proper plus, one (1) foot or a maximum width of three (3) feet multiplied by length of facility fully exposed divided by, twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").
- E. For Facilities Crossing Excavation For Catch Basins, Or Chutes Installations (When NYCDEP Funded) Or Fire Hydrant Branch Connections, Or Unsheeted Water Main Trench, Or House Sewer And/Or Water Services: Volume calculated as: Depth as measured from existing street surface to the bottom of the trench excavation multiplied by, the width taken as the outside diameter of pipe or the width of structure plus one (1) foot on either side (two (2) feet), multiplied by, the length of exposed facility crossing the trench, divided by twenty-seven (27) cubic feet per cubic yard (not shown on "Gas Cost Sharing Work Standard Sketch No. 5").

Overlapping volume dimensions measured as described above may occur when multiple facilities are paralleling excavations, encroaching excavations or crossing catch basins and catch basin chute installations. In such cases, all such facilities shall be counted as one limited by the extreme pipes, faces (See "Gas Cost Sharing Work Standard Sketch No. 2"). The volume shall then be calculated as described above.

7. Price To Cover:

The bid price shall also cover all additional supervision, labor, material, equipment and insurance necessary to excavate while protecting and maintaining (excluding supports for fully exposed live gas) gas facilities without disruption of service to the public and in accordance with contract specifications. The price shall also include, changes of sheeting method and excavation width configuration where necessary to accommodate gas facilities in their existing locations; difficulties during the installation of catch basins, chute connections, hydrant branch, and house sewer and water connections under or over gas facilities; loss of productivity due to slower rate of excavation (special care) during excavation, including the use of such methods as: hand excavation around existing single and multiple facilities, compaction, removal of sheeting from the facilities, extra roadway base restoration and temporary pavement, associated maintenance and protection of traffic, barricades, and traffic plates that may be required to temporarily close and/or complete the work.

SECTION 6.07 - Test Pits For Gas Facilities.

1. Description:

Under this section, the Contractor shall furnish all labor, materials, insurance, equipment and appliances necessary to excavate, sheet and, maintain test pits at locations approved by the Resident Engineer in consultation with the facility operator. Test pits shall be dug in order to ascertain exact locations, cover and invert elevations, clearances, alignment and operating status (live or dead) of existing gas facilities. The Contractor shall inspect jointly with the Resident Engineer and facility operator, gas facilities and other structures uncovered, take all relevant measurements and elevations as directed by the Resident Engineer. Tests to determine operating status of gas facilities shall be performed by facility operator. The pits shall be covered with steel plates during daytime nonworking hours, and uncovered, as required, until the inspection work is completed. Testing of gas facilities may require a maximum of four (4) hours. Then, the pits shall be backfilled with clean fill, and resurfaced with temporary pavement. All traffic shall be maintained and all safety measures as stipulated shall be complied with.

2. Methods Of Construction:

- A. Excavation: Existing pavement to be removed shall be neatly cut along lines of removal with a saw or other approved equipment which leaves a neat straight joint line along the juncture with subsequently replaced pavement. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. Use of hand operated pneumatic and electric jackhammers will be permitted only for breaking pavement and removal of masonry, concrete and boulders, or as otherwise directed by the Resident Engineer. The Contractor shall properly dispose of all materials excavated from test pits away from site. Test pits shall be excavated at locations shown on the contract drawings or as directed by the Resident Engineer. Additional test pits may be required and shall be excavated where required, as ordered by the Resident Engineer. All test pits shall be excavated to a depth and size necessary to locate the existing facilities. Sheeting shall be used when depth of excavation exceeds five (5) feet. The sheeting required shall be furnished and installed in full compliance with the State of New York and Federal Safety Codes requirements and as specified in contract, whichever is more stringent. Care shall be taken that no existing gas facilities or other structures are broken or damaged. All broken or damaged facilities shall be reported immediately to facility operator who shall decide whether such facilities shall be repaired or replaced by company forces or by City contractor and in conformance with "General Provisions; Gas Cost Sharing Work Paragraph No. 9". Contractor shall excavate all material encountered, including large masses of concrete, cemented masonry and boulders, as directed by the Resident Engineer. Any type of excavation protection used, shall satisfy the following:
 - (a) Industrial Code Rule 753.
 - (b) Prevent injury to workers and the public, and avoid damage to existing water, sewer, and gas

pipes or other structures, and to pavements and their foundations, through caving or sliding of the banks of the excavation.

Should it become necessary, as determined by the Resident Engineer, to enlarge any test pit in any dimension after sheeting has been placed, the Contractor shall remove portions of the sheeting, as necessary, enlarge the test pits as directed, and replace the sheeting without additional compensation for this work other than for the additional volume of material excavated.

- B. Maintenance Of Test Pits: Excavated test pits shall be maintained free of debris and kept dry by the Contractor in order to permit the inspection and measurements and to determine the locations of facilities. In order to accomplish this, Contractor shall, upon completion of excavation and placement of sheeting (if depth greater than five (5) feet), furnish and install adequate steel plates and posting over the excavated pits and shall temporarily remove all equipment debris and workers, and relocate barricades in order to open the full width of street to traffic during nonworking hours. The Contractor shall then, at no additional cost, relocate such barricades, barrels, cones and other warning devices and remove steel plates, as and when directed by the Resident Engineer to facilitate the inspection of exposed facilities. When work is being performed and the pits are not covered with steel plates, the Contractor shall provide complete and safe access to the test pits as may be required, and he shall provide construction barricades and maintain traffic at all times as shown or as directed by the Resident Engineer. Upon completion of test pit inspection by the Resident Engineer, the pit shall be backfilled by the Contractor as specified in contract, except that backfill material shall conform to contract specifications for such purpose.
- C. Pavement And Sidewalk Restoration: After backfilling is completed, the Contractor shall construct a temporary pavement consisting of a minimum of four (4) inches thick asphaltic concrete mixture in roadway areas or a two (2) inches thick asphaltic concrete mixture in sidewalk areas in order to maintain existing pedestrian and vehicular traffic. This temporary pavement shall be maintained until permanent pavement and sidewalk replacement is constructed as specified in contract.

3. Measurements:

The quantity to be measured for payment shall be the number of cubic yards of material removed from within the limits of the pit dimensions as directed by the Resident Engineer. The volume occupied by existing pipes or other structures remaining within the maximum payment lines will not be deducted from the total volume measured except, where the cross sectional area of these facilities exceeds four (4) square feet. As determined by the Resident Engineer, the quantity measured for payment may be proportionate to a fair and reasonable estimate of gas responsibility in the total volume excavated.

4. Price To Cover:

The contract price bid per cubic yard for test pits shall cover all additional costs of labor, material, insurance, equipment, appliances and incidentals required to excavate test pits, including removal and disposal of excavated materials, sheeting, steel plating, backfill, compaction and temporary pavement and sidewalk restoration all in accordance with the specifications and as directed by the Resident Engineer. The price shall also include the cost of providing safe access to the excavation by facility operator for the performance of certain test to determine operating status of gas facilities prior to City work. The price shall also include support and protection of all gas facilities crossing excavation, paralleling and/or encroaching any face of excavation.

SECTION 6.08 - "NO TEXT"

SECTION 6.09 - Trench Excavation and Backfill for New Gas Mains and Services (For National Grid Work Only)

1. Description:

Under this section, the contractor shall furnish all labor, materials, equipment, insurance, permits and incidentals required to break/remove roadway and sidewalk pavement, excavate, backfill and restore gas trenches. The trench to be excavated shall be determined by the size of the gas facility to be installed. The work shall be performed in accordance with applicable specifications, and/or at the direction of the Resident Engineer in consultation with the facility operator.

2. Materials:

All materials used to excavate and prepare trenches shall be supplied by the Contractor and be approved by the facility operator in consultation with the Resident Engineer.

3. Method of Construction:

Excavation - The Contractor shall saw cut and/or break and remove existing roadway which may include but is not limited to, asphalt, concrete and cobblestone, utilizing approved equipment that leaves a neat straight joint line along the juncture with subsequently replaced pavement. Prior to starting the trenching operation, the contractor shall excavate the appropriate gas main tie-in pits at the extremities of the gas main sections to be replaced. Test pits shall be excavated to determine exact location of all tie-in pits and at appropriate intervals along proposed trench excavation to verify lane and clearances as shown on the contract plans. The tie-in pits shall be adequately protected by the contractor using wood fencing or steel traffic plates until such time when the facility operator has completed the tie-in work. The Contractor shall be permitted to excavate utilizing a combination of machine and hand excavation, as field conditions warrant, and as directed by the facility operator. The trench shall be adjusted so as to provide for a nominal cover on the new gas facilities or as required based on field conditions, applicable specifications, or as directed by the facility operator in consultation with the Resident Engineer. The width of the trench shall be as directed by the facility operator in consultation of the Resident Engineer. The bottom of the trench shall be graded smooth with a minimum cushion of 3 inches of clean sand and in conformance with applicable specification and be compacted, to minimize initial settlement and to avoid "point" support of new gas facilities. All stones projecting into the trench bottom shall be removed, and the voids backfilled before the new gas facilities are installed. Where streets are not to final grade, the cover shall be measured from the final grade, or the existing grade, whichever provides the deeper trench. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. The contractor shall properly dispose of all materials excavated away from site. Size and location of excavation shall be as directed by the facility operator in consultation with the Resident Engineer. Trenches shall be excavated to a depth and size necessary to facilitate the installation of the new gas facility and in conformance with the applicable specification. All existing facilities that are encountered during trench excavating shall be protected in a manner suitable to the facility operator in consultation with the Resident Engineer. Tight sheeting shall be used, as required, based on field conditions and/or when the depth of excavation is equal to or greater than five feet. Skeleton type sheeting will not be permitted. The sheeting required shall be furnished and installed in full compliance with the State of New York and Federal Safety Code requirements and in compliance with applicable specifications and/or as directed by the facility operator in consultation with the Resident Engineer. Care shall be taken that no existing gas facilities or other structures are broken or damaged. Contractor shall excavate all material encountered necessary to facilitate the installation of the new gas facilities, and as directed by the facility operator. Care should be taken to avoid damage to existing utility facilities and structures, and to pavements and their foundations, and to avoid caving or sliding banks within the excavation.

Maintenance of Trench Excavation - Excavated trenches shall be maintained free of debris and kept dry by the contractor. In order to accomplish this, contractor shall, upon completion of excavation and placement of sheeting (as required and/or if depth is equal to or greater than five feet), furnish and install adequate steel plates, as directed by the facility operator in consultation with the Resident Engineer, and posting over

the excavated trenches and shall temporarily remove all equipment debris and workers, and relocate barricades in order to open the full width of street to traffic during non-working hours, as required based on DOT requirements. National Grid forces will perform all live gas main connections, dead gas main cut-outs, and/or service work associated with disconnecting and reconnecting from old to new gas main The Contractor shall then, at no additional cost, relocate such barricades barrels, cones and other warning devices and remove steel plates, as and when directed by the facility operator in consultation with the Resident Engineer to facilitate the installation of the new gas facilities. When work is being performed and the excavations are not covered with steel plates, the Contractor shall provide complete and safe access to the trench as may be required, and shall provide construction barricades and maintain traffic at all times as shown or as directed by the facility operator in consultation with the Resident Engineer. The contractor has the responsibility to maintain and set to grade all National Grid hardware during backfill and pavement restoration. Upon completion of installation of the new gas facility, the trench excavation shall be backfilled by the contractor in accordance with Contract requirements and all backfill material shall conform to contract specifications for such purpose.

Pavement and Sidewalk Restoration - After backfilling is completed, the contractor shall install temporary pavement consisting of six inches (6") thick asphaltic concrete mixture in roadway areas or a two inches (2") thick asphaltic concrete mixture in sidewalk areas in order to maintain existing pedestrian and vehicular traffic. This temporary pavement shall be maintained until permanent replacement as specified in contract. Permanent pavement restoration shall be as required by the appropriate contract specifications and as directed by the Resident Engineer.

4. Method of Measurement:

The quantity to be measured for payment shall be the number of cubic yards (C.Y.) of trench actually excavated, including roadway pavement, base and/or sidewalk concrete removed within the limits of the trench as directed by the Resident Engineer in consultation with the facility operator. The volume occupied by existing pipes or other structures will be deducted from the total volume measured as shown on contract drawing(s) Title: EP-7 SECT. 6.09 GAS SPECIALTY CONTRACTOR WORK, or as encountered based on existing field conditions.

5. Price to Cover:

The unit price bid per cubic yard for excavation shall include the cost of all supervision, labor, material, equipment, insurance and incidentals necessary to complete excavation trenches, including backfill, compaction testing and restoration of trenches and tie-ins pits as specified or shown on the contract, plans. The bid price shall also include the cost of coordinating the sewer and water main work to be performed by the contractor with the gas installation work to be performed by others. The price shall also include, associated maintenance of traffic, and traffic plates and openings and closings of plates as may be required in order to provide access to the facility operator during the new gas facility installation, and installing, removing and maintaining tight sheeting that may be required, cut, break and remove various thickness of surface and base pavement, excavate by hand, furnish, place and compact, in compliance with DOT requirements, clean sand backfill following installation of the gas facility. Any required removing, trucking, storing, and disposing of material shall be deemed included in the unit price. The price shall also include the cost of providing temporary pavement restoration. Permanent pavement restoration shall be deemed included in this item, as required and as directed by the Resident Engineer.

SECTION 6.09a Trench Excavation and Backfill for New Gas Mains and Services (For Con Edison Work Only)

1. Description:

Under this section, the contractor shall furnish all labor, materials, equipment, insurance, permits and incidentals required to break/remove roadway and sidewalk pavement, excavate, backfill and restore gas trenches. The trench to be excavated shall be determined by the size of the gas facility to be installed. The work shall be performed in accordance with applicable specifications, and/or at the direction of the Resident Engineer in consultation with the facility operator.

2. Materials:

All materials used to excavate and prepare trenches shall be supplied by the Contractor and be approved by the facility operator in consultation with the Resident Engineer. Clean sand backfill material shall be used and shall conform to Con Edison specification EO-1181-rev.6, General Specification for Backfilling of Trench and Small Openings.

3. Method of Construction:

Excavation - The Contractor shall saw cut and/or break and remove existing roadway which may include but is not limited to, asphalt, concrete and cobblestone, utilizing approved equipment that leaves a neat straight joint line along the juncture with subsequently replaced pavement. Prior to starting the trenching operation, the contractor shall excavate the appropriate gas main tie-in pits at the extremities of the gas main sections to be replaced. Test pits shall be excavated to determine exact location of all tie-in pits and at appropriate intervals along proposed trench excavation to verify lane and clearances as shown on the contract plans. The tie-in pits shall be adequately protected by the contractor using wood fencing or steel traffic plates until such time when the facility operator has completed the tie-in work. The Contractor shall be permitted to excavate utilizing a combination of machine and hand excavation, as field conditions warrant, and as directed by the facility operator. The trench shall be adjusted so as to provide for a nominal cover on the new gas facilities or as required based on field conditions, applicable specifications, or as directed by the facility operator in consultation with the Resident Engineer. The width of the trench shall be as directed by the facility operator in consultation of the Resident Engineer. The width and depth of the trench shall conform to Con Edison Gas Operations drawing 309495 rev. 4, Trench Excavation for Gas Mains Up to 350 PSIG, or as directed by the facility operator in consultation of the Resident Engineer. The bottom of the trench shall be graded smooth with a minimum cushion of 3 inches of clean sand and in conformance with applicable specification and be compacted, to minimize initial settlement and to avoid "point" support of new gas facilities. All stones projecting into the trench bottom shall be removed, and the voids backfilled before the new gas facilities are installed. Where streets are not to final grade, the cover shall be measured from the final grade, or the existing grade, whichever provides the deeper trench. Excavation in the vicinity of utilities and other structures shall be performed using hand tools. The contractor shall properly dispose of all materials excavated away from site. Size and location of excavation shall be as directed by the facility operator in consultation with the Resident Engineer. Trenches shall be excavated to a depth and size necessary to facilitate the installation of the new gas facility and in conformance with the applicable specification. All existing facilities that are encountered during trench excavating shall be protected in a manner suitable to the facility operator in consultation with the Resident Engineer. Tight sheeting shall be used, as required, based on field conditions and/or when the depth of excavation is equal to or greater than five feet. Skeleton type sheeting will not be permitted. The sheeting required shall be furnished and installed in full compliance with the State of New York and Federal Safety Code requirements and in compliance with applicable specifications and/or as directed by the facility operator in consultation with the Resident Engineer. Care shall be taken that no existing gas facilities or other structures are broken or damaged. Contractor shall excavate all material encountered necessary to facilitate the installation of the new gas facilities, and as directed by the facility operator. Care should be taken to avoid damage to existing utility facilities and structures, and to pavements and their foundations, and to avoid caving or sliding banks within the excavation.

Maintenance of Trench Excavation - Excavated trenches shall be maintained free of debris and kept dry by the contractor. In order to accomplish this, contractor shall, upon completion of excavation and placement of sheeting (as required and/or if depth is equal to or greater than five feet), furnish and install adequate steel plates, as directed by the facility operator in consultation with the Resident Engineer, and posting over the excavated trenches and shall temporarily remove all equipment debris and workers, and relocate barricades in order to open the full width of street to traffic during non-working hours, as required based on DOT requirements. Con Edison forces will perform all live gas main connections, dead gas main cut-outs, and/or service work associated with disconnecting and reconnecting from old to new gas main The Contractor shall then, at no additional cost, relocate such barricades barrels, cones and other warning devices and remove steel plates, as and when directed by the facility operator in consultation with the

Resident Engineer to facilitate the installation of the new gas facilities. When work is being performed and the excavations are not covered with steel plates, the Contractor shall provide complete and safe access to the trench as may be required, and shall provide construction barricades and maintain traffic at all times as shown or as directed by the facility operator in consultation with the Resident Engineer. The contractor has the responsibility to maintain and set to grade all Con Edison hardware during backfill and pavement restoration. Upon completion of installation of the new gas facility, the trench excavation shall be backfilled by the contractor in accordance with Contract requirements and all backfill material shall conform to contract specifications for such purpose.

Pavement and Sidewalk Restoration - After backfilling is completed, the contractor shall install temporary pavement consisting of six inches (6") thick asphaltic concrete mixture in roadway areas or a two inches (2") thick asphaltic concrete mixture in sidewalk areas in order to maintain existing pedestrian and vehicular traffic. This temporary pavement shall be maintained until permanent replacement as specified in contract. Permanent pavement restoration shall be as required by the appropriate contract specifications and as directed by the Resident Engineer.

4. Method of Measurement:

The quantity to be measured for payment shall be the number of cubic yards (C.Y.) of trench actually excavated, including roadway pavement, base and/or sidewalk concrete removed within the limits of the trench as directed by the Resident Engineer in consultation with the facility operator. The volume occupied by existing pipes or other structures will be deducted from the total volume measured as shown on contract drawing(s) Title: EP-7 SECT. 6.09 GAS SPECIALTY CONTRACTOR WORK, or as encountered based on existing field conditions.

5. Price to Cover:

The unit price bid per cubic yard for excavation shall include the cost of all supervision, labor, material, equipment, insurance and incidentals necessary to complete excavation trenches, including backfill, compaction testing and restoration of trenches and tie-ins pits as specified or shown on the contract, plans. The bid price shall also include the cost of coordinating the sewer and water main work to be performed by the contractor with the gas installation work to be performed by others. The price shall also include, associated maintenance of traffic, and traffic plates and openings and closings of plates as may be required in order to provide access to the facility operator during the new gas facility installation, and installing, removing and maintaining tight sheeting that may be required, cut, break and remove various thickness of surface and base pavement, excavate by hand, furnish, place and compact, in compliance with DOT requirements, clean sand backfill following installation of the gas facility. Any required removing, trucking, storing, and disposing of material shall be deemed included in the unit price. The price shall also include the cost of providing temporary pavement restoration. Permanent pavement restoration shall be deemed included in this item, as required and as directed by the Resident Engineer.

GAS COST SHARING STANDARD SPECIFICATIONS SCHEDULE GCS-A

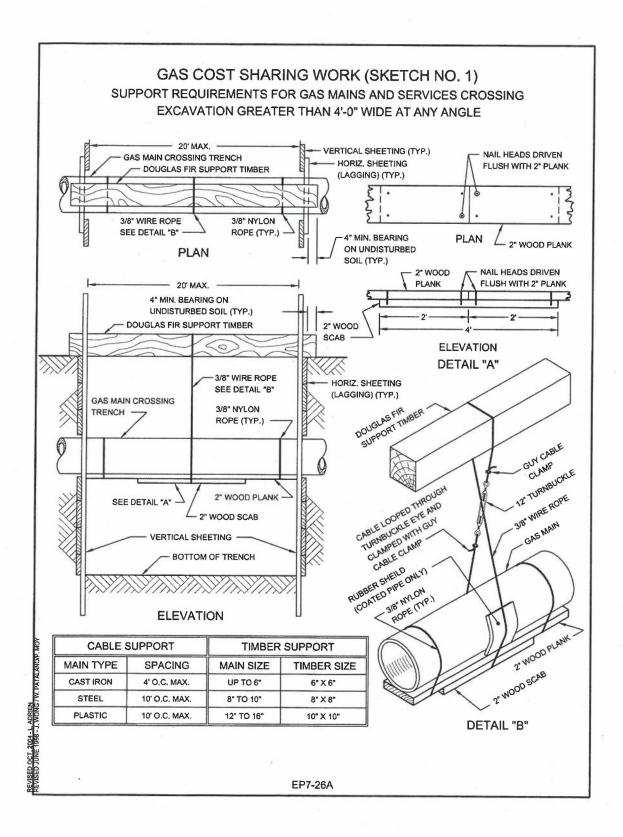
Average rate charged by utility companies to Disconnect and Reconnect Gas Services:

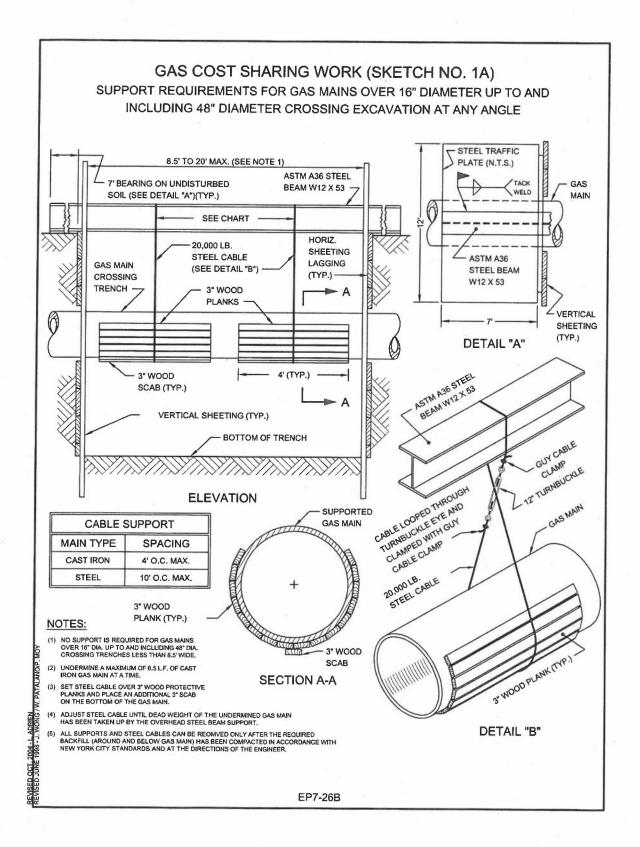
- 1. National Grid \$586.90 per Service/and Visit
- 2. Con Edison \$524.00 per Service/and Visit

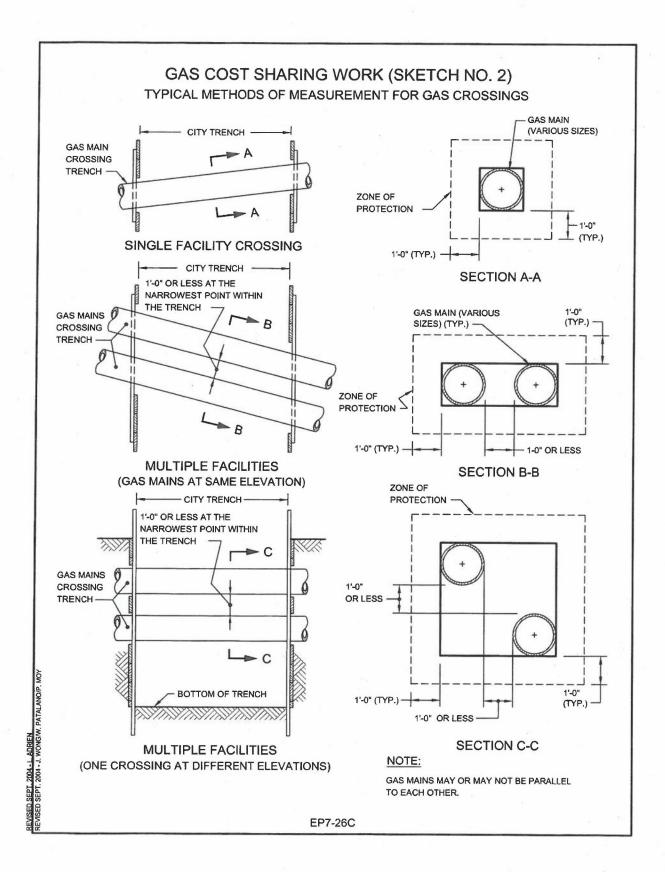
IV - STANDARD SKETCHES; GAS COST SHARING WORK

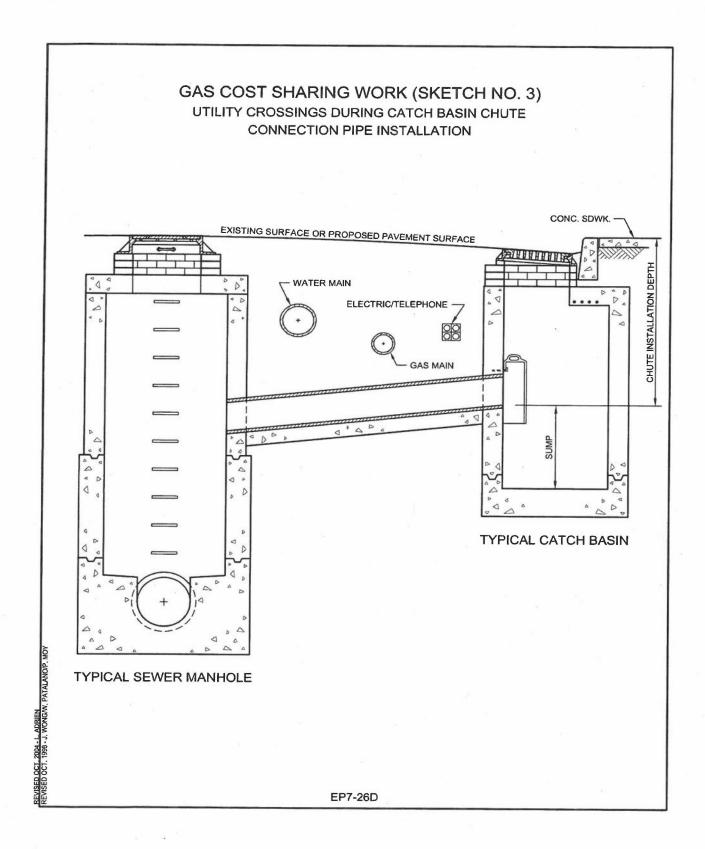
Hereinafter attached are the following Standard Sketches for Gas Cost Sharing Work:

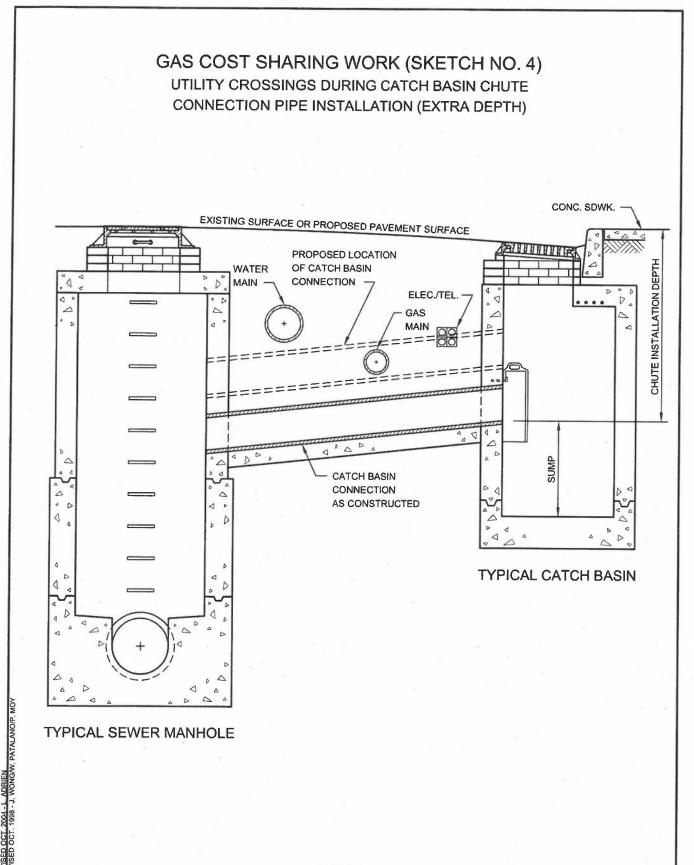
Sketch No. 1 -	Support Requirements For Gas Mains And Services Crossing Excavation Greater Than 4' - 0" Wide At Any Angle			
Sketch No. 1A -	Support Requirements For Gas Mains Over 16" Diameter Up To And Including 48" Diameter Crossing Excavation At Any Angle			
Sketch No. 2 -	Typical Methods Of Measurement For Gas Crossings			
Sketch No. 3 -	Utility Crossings During Catch Basin Chute Connection Pipe Installation			
Sketch No. 4 -	Utility Crossings During Catch Basin Chute Connection Pipe Installation (Extra Depth)			
Sketch No. 5 -	Gas Main Encroachment On And/Or Parallel To Excavation Of Unsheeted Trench			



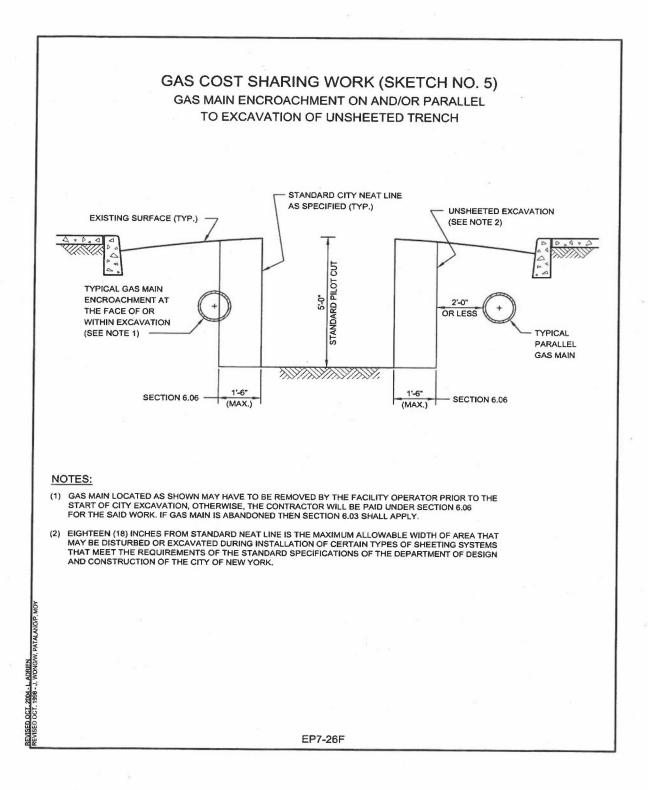








EP7-26E



V - PRELIMINARY GAS WORK TO BE PERFORMED BY FACILITY OPERATOR

APPLICABLE TO ALL GAS DRAWINGS:

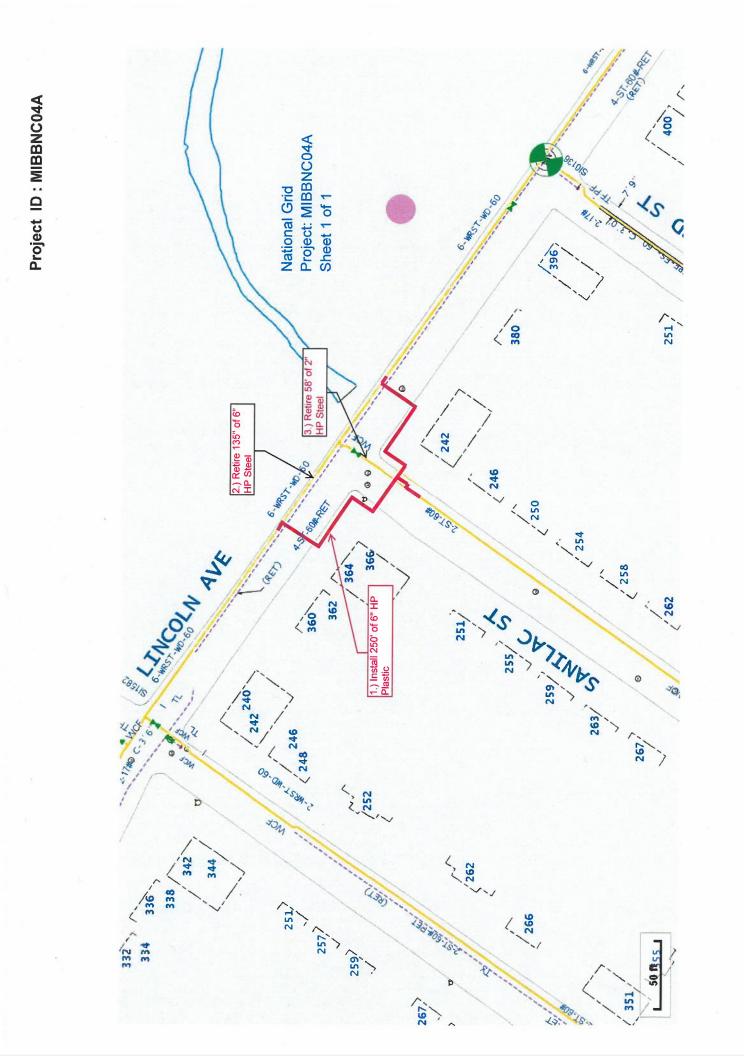
- ALL RELOCATION WORK SHOWN IN THIS SECTION IS TO BE PERFORMED BY FACILITY OPERATOR.
- ALL SUPPORT AND PROTECTION WORK IS TO BE PERFORMED BY CITY CONTRACTOR.
- IF ADDITIONAL INFORMATION IS NEEDED REGARDING THE FACILITY OPERATOR RELOCATION WORK, THE CONTRACTOR IS ADVISED TO CONTACT THE GAS COMPANY REPRESENTATIVE:

Mr. N. JACOBS NATIONAL GRID 287 MASPETH AVENUE BROOKLYN, NY 11211 718-963 5612 Neville.jacobs@nationalgrid.com

(NO TEXT IN THIS AREA, TURN PAGE)

nationalgrid MIBBNC04A GAS MAIN INSTALLATION								
SHEET#	ITEM#	ON STREET	SIZE	MATL	FOOTAGE	PRESSURE	REIMB	
1	1	Lincoln Ave/Sanilac St	6"	Pl	250	60PSI	Yes	
							U	
	NOTE: GAS	INSTALLATION AND RETIRE	MENT SUBJE	CT TO CHAN	GE BY FACILITY	OPERATOR		

SHEET#	ITEM#	ON STREET	SIZE	MATL	FOOTAGE	PRESSURE	REIMB
1	2	Lincoln Ave and Sanilac Street Intersection	6"	Steel	135	60PSI	Yes
1	3	Sanilac Street and Lincoln Intersection	2"	Steel	58	60PSI	Yes
						-	
			1				
					-		
				e			
		1					
	6						
	2						



EP7-27A3

VI - LISTING OF APPROXIMATE LOCATIONS OF EP-7 BID ITEMS QUANTITIES

(NO TEXT IN THIS AREA, TURN PAGE)

SCOPE OF WORK SUPPORT AND PROTECTION FOR CONTRACT NUMBER MIBBNC04A

The City of New York Department of Design and Construction is planning to install sewers and/or water mains and all appurtenances in various locations in The City of New York along with all work incidental thereto.

6.01.8(NG) -Gas Services Crossing Trenches and/or Excavations (Ea.)

Total: 1 Lincoln Ave @ Sanilac St

1

6.02(NG) - Extra Excavation for the Installation of Catch Basin Sewer Drain Pipes with Gas **Interferences (Ea.)** Total: 1 1

Lincoln Ave @ Sanilac St

- 6.03(NG) Removal of Abandoned Gas Facilities. All Sizes (L.F.) 100 in various
- 6.03.1(NG)-Removal of Abandoned Gas Facilities with Possible Coal Tar Wrap. All Sizes. (For National Grid work, Only) (L.F.) 50 in Various
- 6.04(NG) Adjust Hardware to Grade Using Spacer Rings/Adaptors (Street Repaving) (Ea.) 2 in Various
- 6.05(NG) Adjust Hardware to Grade by Resetting (Road Reconstruction) (Ea.) 2 in Various
- 6.06(NG) Special Care Excavation & Backfilling (C.Y.) 100 in Various
- 6.07(NG)- Test Pits for Gas Facilities (C.Y.) 10 in Various
- 6.09 (NG)- Trench Excavation and Backfill for Gas Mains and Services. Gas Installed By others (For National Grid Work Only) (C.Y.) 20 in Various

END OF EP7 PAGES

THE EP7 PAGES CONSIST OF THIRTY-NINE (39) PAGES INCLUDING THIS PAGE



SPECIFICATIONS FOR HANDLING, TRANSPORTATION AND DISPOSAL OF NONHAZARDOUS AND POTENTIALLY HAZARDOUS CONTAMINATED MATERIALS

NOTICE

THE PAGES CONTAINED IN THIS SECTION ARE ISSUED FOR THE PURPOSE OF SPECIFYING THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND HEREBY MADE PART OF SAID CONTRACT DOCUMENTS. SPECIFICATIONS FOR HANDLING, TRANSPORTATION, AND DISPOSAL OF POTENTIAL AND IDENTIFIED CONTAMINATED AND HAZARDOUS MATERIALS

Construction of BMPs - N.C. 6 & N.C. 15

BOROUGH OF STATEN ISLAND CITY OF NEW YORK

Project ID: MIBBNC04A

Prepared By:



30-30 Thomson Avenue Long Island City, New York 11101

October 29, 2021

Notice to Bidders

- 1. ATTENTION IS INVITED TO SUBSECTION 7.317 OF THE BMP SPECIFICATION PAGES. SOIL SAMPLING AND DISPOSAL WITHIN THE PROJECT LIMITS MUST CONFORM TO THE REQUIREMENTS OF THE NYCDDC SPECIFICATIONS FOR HANDLING, TRANSPORATATION AND DISPOSAL OF POTENTIAL AND IDENTIFIED CONTAMINATED AND HAZARDOUS MATERIALS. THIS APPLIES TO ALL AREAS OF EXCAVATION AND IS NOT LIMITED TO AREAS BELOW PAVEMENT. ALL EXCAVATION OUTSIDE THE PUBLIC RIGHT OF WAY SHALL BE COMPARED TO ECOLOGICAL RESOURCES SOIL CLEANUP OBJECTIVES (SCOS).
- 2. DISCLAIMER: NO SUBSURFACE CORRIDOR INVESTIGATION DATA (SCI) IS PROVIDED. THE CONTRACTOR IS TO ASSUME THE EXCAVATED SOIL IS CONTAMINATED AND BID ON THE QUANTITIES LISTED. THE CONTRACTOR SHALL USE HIS / HER ENGINEERING JUDGMENT FOR PRICING OF THOSE ITEMS.

Table of Contents

ITEM 8.01 C1 HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL
ITEM 8.01 C2 SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES
ITEM 8.01 H HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL11
ITEM 8.01 S HEALTH AND SAFETY17
ITEM 8.01 W1 REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER
ITEM 8.01 W2 SAMPLING AND TESTING OF CONTAMINATED WATER
ATTACHMENT 1: NYCDEP LIMITATIONS FOR DISCHARGE TO SEWER
ATTACHMENT 2: APPLICABLE REGULATIONS
ATTACHMENT 3: DEFINITIONS

ITEM 8.01 C1 HANDLING, TRANSPORTING AND DISPOSAL OF NON-HAZARDOUS CONTAMINATED SOIL

8.01 C1.1 WORK TO INCLUDE

A. <u>General</u>

This work will consist of the handling, transportation, and disposal of contaminated soils. The materials covered by this specification are soils that are contaminated with petroleum or chemical products but cannot be classified as hazardous waste. For the purpose of this specification, soil will be defined as any material excavated below the pavement (concrete and/or asphalt) and pavement base (concrete and/or asphalt).

Soil to be excavated can be classified as non-contaminated, contaminated, or hazardous soil. Non-contaminated soils are defined as soils not exhibiting any of the following characteristics.

- Exceedances of New York State Department of Environmental Conservation (NYSDEC) Part 375-6 Restricted Commercial Soil Cleanup Objectives (SCOs) for street work, Restricted Residential SCOs for work areas in parkland, or Residential SCOs for housing projects.
- Elevated Photo-Ionization Detector (PID) readings, subsequently confirmed by laboratory analysis and showed exceedances of applicable SCOs.
- Visual evidence of contamination, such as the presence of staining, discoloration.
- Petroleum and/or chemical odors, subsequently confirmed by laboratory analysis and showed exceedances of applicable SCOs.
- Physical evidence of coal ash, municipal solid waste, construction and demolition debris, or dredged spoils.

Contaminated soils are defined as soils exhibiting one or more of the above characteristics. Contaminated soils must be handled, transported, and disposed of in accordance with the specifications for Item 8.01 C1 – Handling, Transporting and Disposal of Non-Hazardous Contaminated Soil.

Hazardous soils are defined as soils showing exceedances of Toxicity Characteristic Leaching Procedure (TCLP) Regulatory Levels for Hazardous Waste published in Resource Conservation and Recovery Act (RCRA), 6 New York Codes, Rules, and Regulations (NYCRR) Part 371, or 40 Code of Federal Regulations (CFR) Section 261. Hazardous soils must be handled, transported, and disposed of in accordance with the specifications of this section.

This entire specification 8.01 covers the handling, transportation, and disposal of contaminated soils and hazardous soils only. Non-contaminated soil can be reused at the project site, provided it meets other contract requirements. Excess non-contaminated soil becomes the property of the Contractor.

The Contractor must ensure that all operations associated with the handling, sampling, loading, transportation, and disposal of contaminated soils are in compliance with all applicable Federal, State, and City statutes and regulations.

The Contractor must supply all equipment, material and labor required to conduct the specified work of this Item. The Contractor must document the excavation, handling, transportation and disposal of contaminated soils.

B. <u>Request for Approval of Subcontractors</u>

A subcontractor/subconsultant, such as the independent Environmental Consultant and the waste hauler, is not permitted to start work until approved by the Engineer. If the Contractor performs work using a subcontractor/subconsultant prior to approval, the Contractor will not be paid for the work performed by that subcontractor/subconsultant and the Contractor may be subject to sanctions including, but not limited to, initiation of default proceedings.

The Contractor must submit a completed original Request for Approval of Subcontractors (RFAS) form and all required documents, such as legal identity, project reference list, Corporate Health and Safety Plan (HASP), waste transporter permits, Occupational Safety and Health Administration (OSHA) 10 certification, Hazardous Waste and Emergency Response (HAZWOPER) certification, etc., to the Engineer at least 30 days prior to the scheduled subcontract work start date. The Engineer must then submit the original RFAS to DDC Safety and Site Support, Office of Environmental and Geotechnical Services (OEGS) for review and approval. If the RFAS is denied by OEGS, OEGS will issue the final denial and return the original RFAS to the Engineer. If the RFAS is approved by OEGS, OEGS will forward the original RFAS package and an approval memo to the DDC ACCO for further review and approval. The ACCO's Vendor Integrity Unit and Office of Contract Opportunity (OCO) will review the subcontractor/subconsultant's overall business integrity and compliance with Vendor Exchange System (VENDEX), Executive Order 50, Local Law 1, and Minority- and Women-Owned Business Enterprise/ Disadvantaged Business Enterprise (MWBE/DBE) participation as per the contract. ACCO will issue the final Approval or Denial. The original RFAS will be returned to the Engineer, who will subsequently notify and return the original RFAS to the Contractor.

C. Independent Environmental Consultant

The Contractor must retain an independent Environmental Consultant to obtain all permits, prepare the plans required in the specification 8.01, and perform all field screening, sampling, air monitoring, and other health and safety services. The independent Environmental Consultant must be approved under the RFAS process and must demonstrate the minimum requirements as set forth below:

- 1. The independent Environmental Consultant project supervisor on site and other designated key personnel must have a minimum of three (3) years of experience in the environmental field dealing with issues associated with contaminated soils. Such experience must include oversight on environmental, specifically volatile organic compounds and dust monitoring services as a routine part of its daily operations.
- 2. The independent Environmental Consultant must be experienced in work of similar nature, size, and complexity and must have previous experience in working with DDC.
- 3. The independent Environmental Consultant must furnish a project listing identifying the location, nature of services provided, owner, owner's contact, contact's working telephone number, project duration and value for at least five (5) projects within the last 3 years.

D. <u>Sampling and Analysis</u>

Prior to the performance of soil sampling, the Contractor will submit a Field Sampling Plan (FSP). Soil sampling must not be conducted until OEGS has approved the FSP. The Contractor must conduct sampling and analysis of the impacted soils as specified under Item 8.01 C2 – Sampling and Testing of Contaminated/Potentially Hazardous Soil for Disposal Purposes. The laboratory results must be forwarded to OEGS for review to determine if the soils would be handled and disposed of as contaminated soils or hazardous soils.

E. <u>Material Handling Plan</u>

At least 45 days prior to the commencement of work, the Contractor must submit to the OEGS for review a Material Handling Plan (MHP). The MHP must be approved by the OEGS prior to the Contractor beginning any soil excavation work. The MHP must, at a minimum, consist of:

- 1. The Contractor's procedures for identifying contaminated soils during excavation, including the specific model and manufacturer of intended organic vapor monitoring equipment and calibration procedures to be used. It should also include the training and experience of the personnel who will operate the equipment.
- 2. The Contractor's procedures for safely handling contaminated soils. The procedures must include personnel safety and health as well as environmental protection considerations.
- 3. For the proposed laboratory for analysis of representative soil samples, provide the following: (a) name, (b) address, (c) telephone number, and (d) New York State Department of Health's (NYSDOH) Environmental Laboratories Accreditation Program (ELAP) status.
- 4. Identification of the Contractor's proposed waste transporter(s) (hauler). This information must include:
 - 1. Name and Waste Transporter Permit Number
 - 2. Address
 - 3. Name of responsible contact for the waste transporter
 - 4. Telephone number for the contact
 - 5. All necessary permit authorizations for each type of waste transported
 - 6. Previous experience in performing the type of work specified herein
- 5. The name and location of the facility where an off-site scale is located. The Contractor must outline the procedures on controlling trucks leaving the work site and en-route to the off-site scale.
- 6. All staging/stockpiling areas (if stockpiling areas are intended and available), or alternate procedures that will be used. Alternate procedures may include, but are not limited to, agreements from the intended disposal facilities to accept boring data and/or analytical data previously obtained during the site characterization so that materials may be directly loaded into vehicles for shipment to the disposal facility.
- 7. A backup facility must be provided, should the staging/stockpile areas become unavailable, insufficient in area or presented by some other unforeseen difficulty.
- 8. Identification of the Contractor's two proposed Treatment Storage or Disposal (TSD) facilities for contaminated soils (primary and back-up) for final disposal of the soils. Both primary and backup TSD facilities must be currently state-licensed disposal facilities approved to receive contaminated soil. The information required for each facility must include:
 - a. General Information
 - 1. Facility name and the State identification number
 - 2. Facility location

- 3. Name of responsible contact for the facility
- 4. Telephone number for contact
- 5. Signed letter of agreement to accept waste as specified in this contract. The letter must indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed necessary.
- 6. Unit of measure utilized at disposal facility for costing purposes
- b. A listing of all permits, licenses, letters of approval, and other authorizations to operate, which are currently held and valid for the proposed facility.
- c. A listing of all permits, licenses, letters of approval, and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued.
- d. The Contractor must specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste. The Contractor must identify the capacity available in the units and the capacity reserved for the subject waste.
- e. The Contractor must provide the date of the proposed facility's last compliance inspection.
- f. A list of all active (unresolved) compliance orders (or agreements), enforcement notices, or notices of violations issued to the proposed facility must be provided. The source and nature of the cause of violation must be stated, if known.
- 9. Description of all sampling and field/laboratory analyses that will be needed to obtain disposal facility approval.

8.01 C1.2 MATERIALS

- A. The Contractor must provide containers as specified in the United State Department of Transportation (USDOT) regulations.
- B. The Contractor must provide polyethylene sheeting, which is to be placed under (20 mil. thickness minimum) and over (10 mil. thickness minimum) soil piles.
- C. The Contractor must assure that the waste transporter's appropriate choice of vehicles and operating practices are fitted to prevent spillage or leakage of contaminated material during transportation.
- D. The Contractor must provide, install, and maintain any temporary stockpiling or loading facilities on site as required until completion of material handling activities. The location and design of any such facilities must be included in the MHP.

8.01 C1.3 CONSTRUCTION DETAILS

- A. <u>Material Handling</u>
 - 1. Immediately after excavation of non-hazardous contaminated soil the Contractor must:
 - a. Load material directly onto trucks/tankers/roll offs for disposal off site; or

- b. If interim stockpiling is required, place contaminated soil on a minimum of 20 mil. polyethylene sheeting and cover it securely by minimum of 10 mil. polyethylene sheeting to protect against cross contamination, airborne dust, leaching or runoff of contaminants into the subsurface, groundwater, or stormwater. Weight or secure the sheeting by appropriate means and seal seams as approved by the DDC to prevent tearing or removal by wind or weather. Grade surrounding surface to provide for positive drainage away from pile. Each stockpile must not exceed 500 cubic yards. Contaminated soils must be stockpiled separately from uncontaminated and hazardous soil at an off-site location approved by DDC or secured on-site by the Contractor, meeting all required Federal, State and Local stipulations. Stockpiles must be at least 800 feet away from any sensitive receptors, such as schools, daycare center, hospitals, nursing homes, etc., and at least 100 feet away from any water body.
- 2. Institute appropriate procedures and security measures to ensure the protection of site personnel and the public from contaminated materials as described in the approved MHP, Site HASP, and Item 8.01 S Health and Safety.
- 3. Any soil encountered that appears to contain unknown contaminants (based on visual, odor, or other observation), or that vary substantially from the material originally identified must be segregated in stockpiles and the independent Environmental Consultant promptly notified to collect soil samples for analysis. Construct stockpiles to the same requirements as stated in subsection (A)(1)(b) above.
- 4. Provide any dewatering that is necessary to complete the work. Contaminated water must be disposed of in accordance with Item 8.01 W1 Removal, Treatment and Discharge/Disposal of Contaminated Water.
- 5. Provide and operate field organic vapor test equipment, a photoionization detector (PID) or a flame ionization detector (FID), to detect general organic vapor levels at intervals of approximately 50 cubic yards of soil excavated, when visual or odor observations indicate the material may substantially differ from the soil previously excavated and/or as directed by the independent Environmental Consultant.

B. Off-Site Transportation to Disposal Facility

- 1. General
 - a. The Contractor must furnish all labor, equipment, supplies and incidental costs required to transport contaminated material from the work area to the off-site disposal facility, and any other items and services required for transporting contaminated material for disposal at an off-site facility.
 - b. The Contractor will be responsible for tracking all materials and vehicles from the site to the off-site scale.
 - c. The Contractor must submit to the Engineer the certified tare and gross weight slips for each load received at the accepted facility which must be attached to each returned manifest. These documents must be maintained and kept with project field records.
 - d. Contaminated soils must be delivered to the disposal or treatment facility within 30 calendar days after excavation.
 - e. The Contractor must coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule.

- f. The Contractor must inspect all vehicles leaving the project site to ensure that contaminated soils adhering to the wheels or undercarriage are removed prior to the vehicle leaving the site.
- g. The Contractor must obtain letters of commitment from the waste haulers and the TSD facility to haul and accept shipments.
- h. The Contractor must provide waste profile forms to OEGS for review and approval before transporting contaminated soil to the approved TSD facility.
- 2. Hauling
 - a. The Contractor must coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities must be measured and recorded upon arrival at the disposal facility. If any deviation between the two (2) records occurs, the matter is to be reported immediately to the Engineer and to be resolved by the Contractor to the satisfaction of the Engineer.
 - b. The Contractor will be held responsible, at its own cost for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site.
 - c. The Contractor must ensure that trucks are protected against contamination by properly covering and lining them with polyethylene sheeting or by decontaminating them prior to and between acceptances of loads. Trucks with loaded contaminated soil must be covered securely with tarps before leaving the project site to prevent generation of airborne dust during hauling.
 - d. The Contractor will be responsible for inspecting the access routes for road conditions, overhead clearance, and weight restrictions.
 - e. The Contractor must only use the transporter(s) identified in the approved MHP for the performance of work. A revised MHP or an addendum to the original approved MHP must be submitted to OEGS for review and approval at no additional cost to the City for any use of substitute or additional transporters.
 - f. The Contractor must develop, document, and implement a policy for accident prevention.
 - g. The Contractor must not combine contaminated materials from other projects with material from this project.
 - h. No material will be transported until approval by the Engineer is obtained.
- 3. Off-Site Disposal
 - a. The Contractor must use only the disposal facility(ies) identified in the approved MHP for the performance of the work. A revised MHP or an addendum to the original approved MHP must be submitted to OEGS for review and approval at no additional cost to the City for any use of substitutions or additions of disposal facility.
 - b. The Contractor must be responsible for acceptance of the materials at an approved facility, for ensuring that the facility is properly permitted to accept the stated materials, and for ensuring that the facility provides the stated treatment and/or disposal services.
 - c. The City reserves the right to contact and visit the TSD facility and regulatory agencies to verify the agreement to accept the stated materials and to verify any other information provided.

- d. In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The alternate facility(ies) must be approved in writing by the Engineer in the same manner and with the same requirements as for the original facility(ies). This must be done at no extra cost or delay to the City.
- e. The Contractor must obtain manifest forms, and complete the shipment manifest records required by the appropriate regulatory agencies for verifying the material and quantity of each load in unit of volume and weight. Copies of each manifest must be submitted to the Engineer within four (4) business days following shipment, and within three (3) business days after notification of receipt of the facility. The signed manifests must be maintained and kept with the project field records. Any manifest discrepancies must be reported immediately to the Engineer and be resolved by the Contractor to the satisfaction of the Engineer.
- 4. Equipment and Vehicle Decontamination
 - a. The Contractor must design and construct a portable decontamination station to be used to decontaminate equipment and vehicles that have been used to handle contaminated soil. The cost for this work will be paid under Item 8.01 S Health and Safety.
 - b. Water generated during the decontamination process must be disposed of in accordance with Item 8.01 W1 Removal, Treatment and Discharge/Disposal of Contaminated Water.

8.01 C1.4 METHOD OF MEASUREMENT

Quantities for contaminated soils will be measured in tons. The tonnage will be determined by off-site truck scales, as per Subsection 8.01 C1(3)(B)(1), that are capable of generating load tickets.

8.01 C1.5 PRICE TO COVER

- A. The unit bid price per ton for Item 8.01 C1 must include the cost of furnishing all labor, materials, equipment, plan, and insurance for excavation, handling, transportation, disposal, documentation, fees, permits, loading, stockpiling, hauling, and any other incidentals necessary to complete all the work as specified herein for handling, transporting, and disposal of non-hazardous contaminated soil.
- B. Final disposal of hazardous soil will be paid for under Item 8.01 H Handling, Transporting and Disposal of Hazardous Soil. Disposal of decontamination water will be paid for under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.
- C. Backfill will be paid for under its respective item as specified in the contract document.
- D. The independent Environmental Consultant will be paid under Item 8.01 S Health and Safety.

Payment will be made under:

ITEM NUMBER	ITEM	PAYMENT UNIT
8.01 C1	Handling, Transporting and Disposal	Tons
	of Non-Hazardous Contaminated Soil	

ITEM 8.01 C2 SAMPLING AND TESTING OF CONTAMINATED/POTENTIALLY HAZARDOUS SOIL FOR DISPOSAL PURPOSES

8.01 C2.1 WORK TO INCLUDE

A. Description

The work will consist of collecting and analyzing representative samples of soil to be excavated in-situ and/or ex-situ from stockpiles for parameters typically requested by the disposal facilities to determine if the soil to be excavated is suitable for reuse, or to be hauled off-site for disposal purposes as contaminated and/or hazardous soil.

B. <u>Sampling and Laboratory Analysis</u>

- 1. At least forty-five (45) days prior to the commencement of work, the Contractor's independent Environmental Consultant must submit an FSP and an Investigation Health and Safety Plan (Investigation HASP) to OEGS for review and approval, prior to conducting the field sampling. The FSP must include, at a minimum, the following information:
 - a. Project information
 - b. Description of sample collection methodology for soil to be excavated and soil which appears to contain unknown contaminants based on field observation
 - c. Type of analyses
 - d. Sample preservation and handling
 - e. Training and experience of the personnel who will collect the samples
 - f. Equipment Decontamination
 - g. Analytical laboratory's name, address, New York State Department of Health's ELAP certification number, and telephone number
 - h. Map of the project area
 - i. Sample location plan
 - j. Chain of Custody

The Investigation HASP must identify actual and potential hazards associated with planned sampling field activities and stipulate appropriate health and safety procedures, so as to minimize field personnel exposures to physical, biological, and chemical hazards that may be present in the sampling media. The Investigation HASP must include, at a minimum, the following information:

- a. Project information
 - b. Description of work to be performed
 - c. Names of responsible health and safety personnel
 - d. Worker training
 - e. Job hazard analysis
 - f. Confined Space Entry Plan (if applicable)
 - g. Personal monitoring (if applicable)

- h. Community Air Monitoring Plan (CAMP, if applicable)
- i. Personnel Protection Equipment (PPE)
- j. Decontamination
- k. Safety rules
- 1. Spill prevention and control, dust control, vapor/odor suppression procedures
- m. Identification of nearest hospital and route
- n. Emergency Incident Reporting
- 2. The Contractor's Environmental Consultant must collect one (1) grab and one (1) composite sample per 500 cubic yards of soil to be excavated in-situ and/or ex-situ from stockpiles. Sample locations must be placed throughout along the project area. For in-situ sampling, each grab soil sample must be collected from either the 6-inch interval above the water table (when encountered) or the 6-inch interval above the bottom of the proposed excavation depth (where recovery allowed), or from the 6-inch interval showing the highest potential for contamination based on field observation. For composite soil sampling, grid sampling must be performed for projects with excavation depth deeper than six (6) feet below grade. Each composite sample must consist of five (5) grab samples collected from various intervals along the depth of excavation at each sampling location. For stockpiled soils, each composite sample must consist of five (5) grab samples collected from various depths within each soil stockpile, at least two feet below the soil surface. For drummed soil, one (1) composite sample per 10 drums must be collected. Each composite soil sample must consist of the 10 drums.
- 3. The quality of the data from the sampling program is the Contractor's responsibility. The Contractor must furnish all qualified personnel, materials, equipment and instruments necessary to carry out the sampling. Unless directed otherwise, all sampling procedures must follow the NYSDEC sampling guidelines and protocols. All sampling must be conducted by a qualified person trained in sampling protocols using standard accepted practices for obtaining representative samples.
- 4. Each grab and composite sample must be analyzed for all parameters required by disposal facilities accepting contaminated and hazardous soil.
- 5. All sample containers must be marked and identified with legible sample labels, which must indicate the project name, sample location and/or container, the sample number, the date and time of sampling, preservatives utilized and other information that may be useful in determining the character of the sample. Chain-of-custody must be tracked from laboratory issuance of sample containers through laboratory receipt of the samples.
- 6. The Contractor must maintain a bound sample logbook. The Contractor must provide the Engineer access to it at all times and must turn it over to the Engineer in good condition at the completion of the work. The following information, at a minimum, must be recorded to the log:
 - a. Sample identification number
 - b. Sample location
 - c. Field observation
 - d. Sample type
 - e. Analyses
 - f. Date/time of collection

- g. Collector's name
- h. Sample procedures and equipment utilized
- i. Date sent to laboratory and name of laboratory
- 7. The City reserves the right to direct the Contractor to conduct alternative sampling in lieu of the parameters described in subsection 8.01 C2(1)(B)(4), if the situation warrants. The substitute sampling parameters will be of equal or lesser monetary value than those described in subsection 8.01 C2(1)(B)(4), as determined by industry laboratory pricing standards.
- 8. Only dedicated sampling equipment may be used to collect these samples. All equipment involved in field sampling must be decontaminated before being brought to the sampling location, and must be properly disposed after use.
- 9. The Contractor's Environmental Consultant must prepare a Field Sampling Result Report (FSSR), tabulate the analytical results, and compare the data to the applicable NYSDEC Part 375.6 Soil Cleanup Objectives, and TCLP for Hazardous Waste published in RCRA and 6 NYCRR Part 371, or 40 CFR Section 261. If the soil is to be disposed of in a disposal facility outside of the State of New York, the soil sampling data must also be compared to the applicable regulatory criteria established by the state in which the disposal facility is located. The FSSR, with the tabulated tables and laboratory analytical data, must be submitted to OEGS for review and approval prior to any soil reuse or disposal activities.
- 10. Soils exceeding any of the hazardous characteristic criteria meet the legal definition of hazardous soils (rather than non-hazardous contaminated soils) and must be transported or disposed of under Item 8.01 H Handling, Transporting and Disposal of Hazardous Soil. All analyses must be done by a laboratory that has received approval from the ELAP for the methods to be used. The Contractor must specify the laboratory in the MHP.
- 11. The Contractor must contact the disposal facility where the waste will be sent for permanent disposal, and arrange to collect any additional samples required by the facility. The cost associated with additional sampling and testing must be included in the bid price of this Item.

8.01 C2.2 METHOD OF MEASUREMENT

Quantities for samples must be measured as the number of sets of samples that are tested. A set will be defined as one (1) grab and one (1) composite samples per 500 cubic yards to be analyzed for the full range of parameters as specified in subsection 8.01 C2(1)(B)(4).

8.01 C2.3 PRICE TO COVER

The unit price bid per set for Item 8.01 C2 will include the cost of furnishing all labor, materials, equipment, plan, and insurance necessary for sampling, handling, transporting, testing, documentation, fees, permits, and any other incidentals necessary to complete the work as specified herein for in-situ and ex-situ soil sampling and analysis for waste disposal parameters.

Payment will be made under	÷
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ITEM NUMBER	ITEM	PAYMENT UNIT
8.01 C2	Sampling and Testing of Contaminated/	Set
	Potentially Hazardous Soil for Disposal Purpos	es

ITEM 8.01 H HANDLING, TRANSPORTING AND DISPOSAL OF HAZARDOUS SOIL

8.01 H.1 WORK TO INCLUDE

A. General

This work will consist of the handling, transportation, and disposal of hazardous soils, which are defined as soils showing exceedances of TCLP for Hazardous Waste published in RCRA, 6 NYCRR Part 371, or 40 CFR Section 261. Hazardous soil can also be contaminated soils, as defined in Item 8.01 C1, but must be handled, transported, and disposed of as hazardous soil under Item 8.01 H, in accordance with the specifications herein. For the purpose of this specification, soils will be defined as any materials excavated below the pavement and base for pavement.

The Contractor must ensure that all operations associated with the handling, sampling, loading, transportation, and disposal of hazardous materials are in compliance with the applicable Federal, State, and Local statutes and regulations. The Contractor must supply all equipment, material and labor required to conduct the specified work under this section.

The Contractor must document the excavation, handling, sampling, and testing, transportation, and disposal of hazardous soils. The City must be listed in the disposal documents as the waste generator.

The Contractor must decontaminate all equipment prior to its removal from the exclusion zone and/or following contact with hazardous materials, as detailed in Item 8.01 S - Health and Safety. Water generated during the decontamination process must be disposed of under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.

The Contractor must retain an independent Environmental Consultant, meeting the requirements specified in Section 8.01 C1. The independent Environmental Consultant must conduct sampling for laboratory analysis of soil to be excavated to determine whether the soil is contaminated and/or hazardous.

All work under Item 8.01 H must be performed under the direct supervision of the Contractor's Environmental Consultant, as approved by the OEGS.

B. <u>Material Handling Plan</u>:

At least 45 days prior to the commencement of work, the Contractor must submit to the OEGS for review a MHP. The MHP must be approved by the OEGS prior to the Contractor beginning any soil excavation work. The MHP must, at a minimum, consist of:

- 1. The Contractor's procedures for identifying hazardous soils during excavation, including the specific model and manufacturer of intended organic vapor monitoring equipment and calibration procedures to be used. It should also include the training and experience of the personnel who will operate the equipment.
- 2. The Contractor's procedures for safely handling hazardous soils or soils which have not yet been tested but are believed to be potentially hazardous. The procedures must include personnel safety and health as well as environmental protection considerations.
- 3. Name, address, NYSDOH ELAP status and telephone number of the proposed laboratory for analysis of representative soil samples.
- 4. Identification of the Contractor's proposed waste transporter(s). This information must include:
 - 1. Name and Waste Transporter Permit Number
 - 2. Address
 - 3. Name of responsible contact for the waste transporter

- 4. Telephone number for the contact
- 5. All necessary permit authorizations for each type of waste transported
- 6. Previous experience in performing the type of work specified herein
- 5. The name and location of the facility where an off-site scale is located. The Contractor must outline the procedures on controlling trucks leaving the work site and en-route to the off-site scale.
- 6. All staging/stockpiling areas (if stockpiling areas are intended and available), or alternate procedures that will be used. Alternate procedures may include, but are not limited to, agreements from the intended disposal facilities to accept boring data and/or analytical data previously obtained during the site characterization so that materials may be directly loaded into vehicles for shipment to the disposal facility.
- 7. A backup facility must be provided, should the staging/stockpile areas become unavailable, insufficient in area or not be present by some other unforeseen difficulty.
- 8. Identification of the Contractor's two proposed Treatment Storage or Disposal (TSD) facilities for hazardous soils (primary and back-up) for final disposal of the hazardous soils. Both primary and backup TSD facilities must be currently USEPA or State-approved RCRA TSD facilities for hazardous soils. The information required for each facility must include:
 - a. General Information
 - 7. Facility name and the USEPA identification number
 - 8. Facility location
 - 9. Name of responsible contact for the facility
 - 10. Telephone number for contact
 - 11. Signed letter of agreement to accept waste as specified in this contract. The letter must indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed necessary.
 - 12. Unit of measure utilized at disposal facility for costing purposes
 - b. A listing of all permits, licenses, letters of approval, and other authorizations to operate, which are currently held and valid for the proposed facility.
 - c. A listing of all permits, licenses, letters of approval, and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued.
 - d. The Contractor must specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste. The Contractor must identify the capacity available in the units and the capacity reserved for the subject waste.
 - e. The Contractor must provide the date of the proposed facility's last compliance inspection under RCRA.
 - f. A list of all active (unresolved) compliance orders (or agreements), enforcement notices, or notices of violations issued to the proposed facility must be provided. The source and nature of the cause of violation must be stated, if known.

9. Description of all sampling and field/laboratory analyses that will be needed to obtain disposal facility approval.

8.01 H.2 MATERIALS

- A. The Contractor must provide containers as specified in the USDOT regulations.
- B. The Contractor must provide polyethylene sheeting, which is to be placed under (20 mil. thickness minimum) and over (10 mil. thickness minimum) soil piles.
- C. The Contractor must assure that the waste transporter's appropriate choice of vehicles and operating practices are fitted to prevent spillage or leakage of contaminated material during transportation.
- D. The Contractor must provide, install, and maintain any temporary stockpiling or loading facilities on site as required until completion of material handling activities. The location and design of any such facilities must be included in the MHP.

8.01 H.3 CONSTRUCTION DETAILS

- A. <u>Material Handling</u>
 - 1. Immediately after excavation of hazardous soil the Contractor must:
 - a. Load material directly onto drums/trucks/tankers/roll offs for disposal off site. Containers must be labeled as hazardous soil while being held for disposal; or
 - b. If interim stockpiling is required, place hazardous soil on a minimum of 20 mil. polyethylene sheeting and cover it securely by minimum of 10 mil. polyethylene sheeting to protect against cross contamination, airborne dust, leaching or runoff of contaminants into the subsurface, groundwater, or stormwater. Weight or secure the sheeting by appropriate means and seal seams as approved by the Engineer to prevent tearing or removal by wind or weather. Grade surrounding surface to provide for positive drainage away from pile. Each stockpile must not exceed 500 cubic yards. Hazardous soils must be stockpiled separately from uncontaminated and contaminated soil at an off-site location approved by the Engineer or secured on-site by the Contractor, meeting all required Federal, State and Local stipulations. Stockpiles must be labelled as hazardous soil and situated at least 800 feet away from any sensitive receptors, such as schools, daycare center, hospitals, nursing homes, etc., and at least 100 feet away from any water body.
 - 2. Institute appropriate procedures and security measures to ensure the protection of site personnel and the protection of the public from hazardous soils as described in the approved MHP, Site HASP, and Item 8.01 S Health and Safety.
 - 3. Any soil encountered that appears to contain unknown contaminants (based on visual, odor, or other observation), or that vary substantially from the material originally identified must be segregated in stockpiles and the independent Environmental Consultant promptly notified to collect soil samples for analysis. Construct stockpiles to the same requirements as stated in subsection (A)(1)(b) above.
 - 4. Provide any dewatering that is necessary to complete the work. Contaminated water must be disposed of in accordance with Item 8.01 W1 Removal, Treatment and Discharge/Disposal of Contaminated Water.

- 5. Provide and operate field organic vapor test equipment, a PID or a FID, to detect general organic vapor levels at intervals of approximately 50 cubic yards of soil excavated, when visual or odor observations indicate the material may substantially differ from the soil previously excavated and/or as directed by the independent Environmental Consultant.
- C. Off-Site Transportation to Disposal Facility
 - 1. General
 - a. The Contractor must furnish all labor, equipment, supplies and incidental costs required to transport contaminated material from the work area to the off-site disposal facility, and any other items and services required for transporting hazardous material for disposal at an off-site facility.
 - b. The Contractor is responsible for obtaining the USEPA hazardous waste generator identification number for the City. The application must be submitted to OEGS for review and approval prior to submission to USEPA. The Contractor must prepare the annual hazardous waste report for the project and submit to the NYSDEC and USEPA.
 - c. The Contractor will be responsible for tracking all material/vehicles from the site to the off-site scale and to the approved disposal facility.
 - d. The Contractor must provide to the Engineer certified tare and gross weight slips for each load received at the accepted facility which must be attached to each returned manifest. These documents must be maintained and kept with project field records.
 - e. Hazardous soils must be delivered to the disposal or treatment facility within 30 calendar days after excavation.
 - f. The Contractor must coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule.
 - g. The Contractor must inspect all vehicles leaving the project site to ensure that hazardous soils adhering to the wheels or undercarriage are removed prior to the vehicle leaving the site.
 - h. The Contractor must obtain letters of commitment from the waste haulers and the TSD facility to haul and accept shipments.
 - i. The Contractor must provide waste profile forms to OEGS for review and approval before transporting hazardous soil to the approved TSD facility.
 - 2. Hauling
 - a. The Contractor must coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities must be measured and recorded upon arrival at the disposal facility. If any deviation between the two records occurs, the matter is to be reported immediately to the Engineer and to be resolved by the Contractor to the satisfaction of the Engineer.
 - b. The Contractor will be responsible, at its own cost for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site.
 - c. The Contractor must ensure that trucks are protected against contamination by properly covering and lining them with polyethylene sheeting or by decontaminating them prior to and between acceptances of loads. Trucks with loaded contaminated soil must be covered securely with tarp before leaving the project site to prevent generation of airborne dust during hauling.

- d. The Contractor will be responsible for inspecting the access routes for road conditions, overhead clearance, and weight restrictions.
- e. The Contractor must only use the transporter(s) identified in the approved MHP for the performance of work. Only a transporter with a current Part 364 Waste Transporter Permit from NYSDEC may transport hazardous soil. A revised MHP or an addendum to the original approved MHP must be submitted to OEGS for review and approval at no additional cost to the City for any use of substitute or additional transporters.
- f. The Contractor must develop, document, and implement a policy for accident prevention.
- g. The Contractor must not combine hazardous materials from other projects with material from this project.
- h. No material will be transported until approval by the Engineer is obtained.
- 3. Off-Site Disposal
 - a. The Contractor must use only the disposal facility(ies) identified in the approved MPH for the performance of the work. A revised MHP or an addendum to the original approved MHP must be submitted to OEGS for review and approval at no additional cost to the City for any use of substitutions or additions of disposal facility.
 - b. The Contractor will be responsible for acceptance of the materials at an approved facility, for ensuring that the facility is properly permitted to accept the stated materials, and for ensuring that the facility provides the stated treatment and/or disposal services.
 - c. The City reserves the right to contact and visit the TSD facility and regulatory agencies to verify the agreement to accept the stated materials and to verify any other information provided.
 - d. In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The alternate facility(ies) must be approved in writing by the Engineer in the same manner and with the same requirements as for the original facility(ies). This must be done at no extra cost or delay to the City.
 - e. The Contractor must obtain manifest forms, and complete the shipment manifest records required by the appropriate regulatory agencies for verifying the material and quantity of each load in unit of volume and weight. Copies of each manifest must be submitted to the Engineer within four (4) business days following shipment, and within three (3) business days after notification of receipt of the facility. The signed manifests must be maintained and kept with the project field records. Any manifest discrepancies must be reported immediately to the Engineer and be resolved by the Contractor to the satisfaction of the Engineer.
 - f. The Contractor must submit all results and weights to the Engineer.
 - g. The Contractor is responsible to pay all fees associated with the generation and disposal of all excavated hazardous waste. These fees include, but are not limited to, the New York State Department of Finance and Taxation (DFT) quarterly fees for hazardous waste and the NYSDEC annual hazardous waste regulatory fee program. The Contractor must submit a copy of proof of payment to the Engineer and OEGS.

- 4. Equipment and Vehicle Decontamination
 - a. The Contractor must design and construct a portable decontamination station to be used to decontaminate equipment and vehicles that have been used to handle contaminated soil. The cost for this work will be paid under Item 8.01 S Health and Safety.
 - b. Water generated during the decontamination process must be disposed of in accordance with Item 8.01 W1 Removal, Treatment, and Discharge/Disposal of Contaminated Water.

8.01 H.4 METHOD OF MEASUREMENT

Quantities for hazardous soils will be measured in tons. The tonnage will be determined by off-site truck scales, as per Subsection 8.01 H1.3.B, that are capable of generating load tickets.

8.01 H.5 PRICE TO COVER

- B. The unit bid price bid per ton for Item 8.01 H will include the cost of furnishing all labor, materials, equipment, plan, and insurance for excavation, handling, transportation, disposal, documentation, fees, permits, loading, stockpiling, hauling, and any other incidentals necessary to complete all the work as specified herein for handling, transporting, and disposal of hazardous soil.
- B. Final disposal of contaminated soil will be paid for under Item 8.01 C1 Handling, Transporting and Disposal of Non-Hazardous Contaminated Soil. Disposal of decontamination water will be paid for under Item 8.01 W1 – Removal, Treatment and Discharge/Disposal of Contaminated Water.
- C. Backfill will be paid for under its respective item as specified in the contract document.
- D. The independent Environmental Consultant will be paid under Item 8.01 S Health and Safety.

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ITEM NUMBER	ITEM	PAYMENT UNIT
8.01 H	Handling, Transporting and Disposal	Tons
	of Hazardous Soil	

Payment will be made under:

ITEM 8.01 S HEALTH AND SAFETY

8.01 S.1 WORK TO INCLUDE

Health and Safety Requirements

A. Scope of Work

It is the Contractor's responsibility to stage and conduct the Contractor's work in a safe manner. The Contractor must implement a Health and Safety Plan (HASP) for contaminated/hazardous soil intrusive activities as set forth in OSHA Standards 1910.120 and 1926.650-652. The Contractor must ensure that all workers have at a minimum hazard awareness training. The Contractor must segregate contaminated work area in secured exclusion zones. These zones must limit access to Contractor personnel specifically trained to enter the work area. The exclusion zone must be set up to secure the area from the public and untrained personnel. The project health and safety program will apply to all construction personnel including persons entering the work area. In addition, the Contractor must protect the public from on-site hazards, including subsurface contaminants associated with on-site activities. The HASP must be signed off by a Certified Industrial Hygienist and reviewed and approved by OEGS.

Work must include, but not be limited to:

- 1. Implementation of a baseline medical program.
- 2. Providing safety equipment and protective clothing for site personnel, including maintenance of equipment on a daily basis; replacement of disposable equipment as required; decontamination of clothing, equipment and personnel; and providing all other health and safety measures.
- 3. Providing, installing, operating and maintaining on-site emergency medical first aid equipment as specified in this section for which payment is not provided under other pay items in this Contract.
- 4. Providing, installing, operating, maintaining and decommissioning all equipment and personnel decontamination facilities specified within this section, including, but not limited to, the decontamination pad, decontamination water supply, decontamination water collection equipment and all other items and services required for the implementation of the health and safety requirements for which pay items are not provided elsewhere in this Contract.
- 5. Provide the minimum health and safety requirements for excavation activities within the limits of this Contract.
- 6. Implement and enforce a HASP: The HASP as presented in these specifications is dynamic with provisions for change to reflect new information, new practices or procedures, changing site environmental conditions or other situations which may affect site workers and the public. The HASP will also address measures for community protection, accident prevention, personnel protection, emergency response/contingency planning, air monitoring, odor control and hazardous chemicals expected on site. Providing a Confined Space Entry Program as defined in the Occupational Safety and Health Act, Confined Space Entry Standard, 29 CFR 1910.146.
- B. <u>Environmental Consulting Services</u>

The Contractor must retain an independent Environmental Consultant to obtain all permits and perform all field screening, air monitoring, community air monitoring, soil and water sampling, and health and safety services.

- 4. If conditions within the exclusion zone are deemed hazardous, then the Contractor and its independent Environmental Consultant must ensure that all personnel working within identified exclusion zones and/or involved (direct contact) with the handling, storage or transport of hazardous and contaminated materials must have completed a minimum of forty (40) hours of Health and Safety Training on Hazardous Waste Sites in accordance with 29 CFR 1910.120(e). The training program must be conducted by a qualified safety instructor. If conditions in the exclusion zone are deemed to be non-hazardous, the independent Environmental Consultant must provide site specific training.
- 5. The Contractor must ensure that on-site management and supervisors directly responsible for or who supervise employees engaged in hazardous waste operations must receive the training specified in above and at least eight (8) additional hours of specialized training on managing such operations at the time of job assignment.

C. <u>Submittals</u>

- 1. The Contractor must submit a written HASP, as specified herein, to OEGS for review and approval. The written HASP must be submitted, within thirty (30) calendar days after the availability of analytical results of the soil and groundwater testing, as required under Section 8.01 C2 and Section 8.01 W2. The Contractor must make all necessary revisions required by OEGS and resubmit the HASP to OEGS for acceptance. Start-up work for the project will not be permitted until written acceptance has been issued by OEGS.
- 2. Daily safety logs must be maintained by the Contractor and must be submitted to the Engineer either on request or on completion of the work. Training logs must be maintained by the Contractor and submitted to the Engineer either on request or on completion of the work. Daily logs on air monitoring during excavation activities must be prepared and maintained by the Contractor and submitted to the Engineer either on request or upon completion of the work.
- 3. A closeout report must be submitted by the Contractor to the Engineer upon completion of the work within the defined exclusion zones. This report must summarize the daily safety and monitoring logs and provides an overview of the Contractor's performance regarding environmental and safety issues. The report must carefully document all areas where contamination has been found including pictures, addresses of locations, and potential sources.
- 4. Medical Surveillance Examinations: The Contractor must submit to the Engineer the name, office address and telephone number of the medical consultant utilized. Evidence of baseline medical examinations together with the evidence of the ability to wear National Institute for Occupational Safety and Health (NIOSH) approved respirators (as specified in American National Standards Institute (ANSI) Z88.6) must be provided to the Engineer for all construction personnel who are to enter the exclusion zones.
- 5. Accident Reports: All accidents, spills, or other health and safety incidents must be reported to the Engineer.

D. <u>Health and Safety Plan</u>

The HASP must comply with OSHA regulations 29 CFR 1910.120/1926.65. This document must at a minimum contain the following:

- 1. Description of work to be performed
- 2. Site description
- 3. Key personnel
- 4. Worker training procedures

- 5. Work practices and segregation of work area
- 6. Hazardous substance evaluation
- 7. Hazard assessment
- 8. Personal and community air monitoring procedures and action levels
- 9. Personal protective equipment
- 10. Decontamination procedures
- 11. Safety rules
- 12. Emergency procedures
- 13. Spill prevention and control, as well as spill reporting procedures
- 14. Dust control, vapor/odor suppression procedures
- 15. Identification of the nearest hospital and route
- 16. Confined space procedures
- 17. Excavation safety procedures

8.01 S.2 MEASUREMENT

Health and Safety Requirements

- A. 25% of the lump sum price will be paid when the following items are implemented or mobilized:
 - Medical surveillance program
 - Health and safety training
 - Health and safety plan
 - Environmental and personnel monitoring
 - Instrumentation
 - Spill control
 - Dust control
 - Personnel and equipment decontamination facilities
 - Personnel protective clothing
 - Communications
 - Mobilization
- B. 50% will be paid in proportional monthly amounts over the period of work.
- C 25% will be paid when the operation is demobilized and removed from the project site.

8.01 S.3 PRICE TO COVER

Health and Safety Requirements

The lump sum price bid for the health and safety requirements will include all labor, materials, equipment, and insurance necessary to complete the work in accordance with these specifications. The price bid will include, but not be limited to, the following:

- A. Providing training, safety personnel, air monitoring and medical examinations as specified.
- B. Providing safety equipment and protective clothing for site personnel, including maintenance of equipment on a daily basis; replacement of disposable equipment as required; decontamination of clothing, equipment and personnel; and all other health and safety activities or costs not paid for under other pay items in this Contract.
- C. Providing, installing, operating and maintaining on-site emergency medical and first aid equipment. This includes all furnishings, equipment, supplies and maintenance of all medical equipment, and all other health and safety items and services for which payment is not provided under other pay items in this Contract.
- D. Providing, installing, operating, maintaining, and decommissioning all personnel and equipment decontamination facilities, including decontamination pad, decontamination water supply, and all other items and services required for the implementation of the health and safety requirements for which pay items are not provided elsewhere in this Contract. Vehicle decontamination pads will be included in the price of this item. Disposal of decontamination fluid will be paid for under Item 8.01 W1 Removal, Treatment, and Discharge/Disposal of Contaminated Water.
- E. <u>Spill Control</u>
 - 1. Payment will account for furnishing, installing, and maintaining all spill control equipment and facilities. Payment will include equipment and personnel to perform emergency measures required to contain any spillage and to remove spilled materials and soils or liquids that become contaminated due to spillage during work within the exclusion zones and handling of excavated soils and liquids from these areas. This collected spill material will be properly disposed of.
 - 2. Payment under this item will not include testing, handling, transportation or disposal of petroleum-contaminated/potentially hazardous soils excavated during construction. The price for this work will be paid for under Items 8.01 C1 Handling, Transporting and Disposal of Non-Hazardous Contaminated Soil, 8.01 C2 Sampling and Testing of Contaminated/Potentially Hazardous Soil for Disposal Purposes or 8.01 H Handling, Transporting and Disposal of Hazardous Soil, as appropriate.
- F. <u>Dust Control</u>

Payment will account for furnishing, installing, and maintaining dust control equipment and facilities to be used whenever applicable dust levels are exceeded. Payment will include all necessary labor, equipment, clean water, foam, and all other materials required by the Dust Control Plan. The NYSDOH Community Air Monitoring Plan (CAMP) may be used as guidance.

G. <u>Vapor/Odor Suppression</u>

Payment will account for furnishing, installing and maintaining vapor/odor control equipment and facilities to be used whenever organic vapor monitoring or the presence of odors indicates that vapor suppression is required to protect workers or the public. Payment will include all necessary labor, equipment, clean water, foam and all other materials required by the Vapor/Odor Suppression Plan.

H. <u>Mobilization/Demobilization</u>

1. Mobilization

Payment will include the following, but not be limited to:

a. All work required to furnish, install and maintain all signs, fencing, support zone facilities, parking areas and all temporary utilities;

- b. All work required to furnish, install, and maintain an office space with phone and utilities for health and safety personnel;
- c. All work required for complete preparation of lay down area for roll-off containers, including sampling, and any required fencing;
- d. All direct invoiced cost from bonding companies and government agencies for permits and costs of insurance; and
- e. All other items and services required for mobilization and site preparation.
- 2. Demobilization

Payment will include but not be limited to: All work required to sample the area; remove from the site all equipment, temporary utilities and supporting facilities; performance of necessary decontamination and repairs; disposal of disposable equipment and protective gear and other items and services required for complete demobilization.

Payment will be made under:

ITEM NUMBER	ITEM	PAYMENT UNIT
8.01 S	Health and Safety	Lump Sum

ITEM 8.01 W1 REMOVAL, TREATMENT, AND DISCHARGE/DISPOSAL OF CONTAMINATED WATER

8.01 W1.1 WORK TO INCLUDE

General: This work must consist of the proper removal and disposal of all contaminated groundwater and decontamination water generated during construction operations. The Contractor must be solely responsible for the proper disposal or discharge of all contaminated water generated at the job site. The Contractor will have the option of treating water on-site for discharge to the sewer system or removing contaminated water for off-site disposal. The Contractor must be responsible to choose a method compatible to the construction work and will be compensated on a per day basis regardless of method employed. The Contractor will be compensated for only those days where the system is in full operation.

The Contractor must retain a dewatering/water treatment Specialist (hereinafter the "Specialist") and laboratory as specified under Item 8.01 W2 – Sampling and Testing of Contaminated Water, to conduct any testing that may be required for disposal of impacted water.

The dewatering/water treatment Specialist is responsible to obtain all permits; perform all water sampling, testing; and provide ancillary services related to dewatering and water treatment. The Specialist must at a minimum provide documentation to OEGS demonstrating the minimum requirements as set forth below:

- 1. The Specialist must demonstrate that it has, at a minimum, three (3) years' experience in the design of dewatering plans. The Specialist should demonstrate expertise dealing with issues associated with contaminated water. During that three (3) year period, the Specialist must demonstrate that it provided dewatering and water treatment systems as a routine part of its daily operations.
- 2. The Specialist must be experienced in work of this nature, size, and complexity and must have previous experience in working with the NYSDEC.
- 3. The Specialist must furnish a project listing identifying the location, nature of services provided, owner, owner's contact, contact's telephone number, project duration and value for at least five (5) projects within the last three (3) years of a similar nature, size, and complexity to this one.
- 4. If conditions within the exclusion zone are deemed hazardous, then the Contractor and its independent Environmental Consultant must ensure that all personnel working within identified exclusion zones and/or involved (direct contact) with the handling, storage or transport of hazardous and contaminated material must have completed a minimum of forty (40) hours of Health and Safety Training on Hazardous Waste Sites in accordance with 29 CFR 1910.120(e). The training program must be conducted by a qualified safety instructor. If conditions in the exclusion zone are deemed to be non-hazardous, the Specialist will be responsible to provide site-specific training to its employees and other affected personnel.
- 5. The Contractor must ensure that on-site management and supervisors directly responsible for or who supervise employees engaged in hazardous waste operations must receive the training specified in above and at least eight (8) additional hours of specialized training on managing such operations at the time of job assignment.

The Contractor must document all operations associated with the handling, sampling and disposal of contaminated water, and ensure that they are in compliance with applicable Federal, State and Local statutes and regulations.

The Contractor must supply all labor, equipment, transport, plant, material, treatment, and other incidentals required to conduct the specified work of this section.

If water will be disposed of into the sewer system, the Contractor must ensure the Specialist treats the water to comply with the New York City Department of Environmental Protection (NYCDEP) Sewer Effluent Limit concentrations prior to discharge. The Contractor is responsible for providing settling or filtering tanks and any other apparatus required by NYCDEP. Alternatively, the Contractor can provide a plan for transport and disposal at an off-site waste disposal facility.

Within forty-five (45) calendar days after award of Contract, the Contractor must submit to OEGS for review and approval, a Water Handling Plan (WHP). The WHP must be approved by OEGS prior to the Contractor's commencement of work. The minimum requirements for the WHP are specified herein Item 8.01W 1.2, for each type of disposal (disposal into the sewer or off-site disposal). The Contractor must maintain a complete, up to date copy of the WHP on the job site at all times.

8.01 W1.2 CONSTRUCTION DETAILS

For each disposal method the Contractor proposes to utilize (disposal to sewer or off-site disposal), the WHP must include the information required in paragraphs A and B below, as appropriate.

- A. <u>On-site treatment and discharge into New York City sewers.</u>
 - 1. Regulations: The Contractor must comply with all applicable regulations. This includes but may not be limited to:

Title 15-New NYCDEP Sewer Use Regulations.

- 2. Permits: The Contractor is solely responsible to obtain all necessary and appropriate Federal, State and Local permits and approvals. The Contractor will be responsible for performing all and any system pilot tests required for permit approval. This includes but may not be limited to:
 - a. Industrial waste approval for the New York City sewer system.
 - b. Groundwater discharge permit for the New York City sewer system (NYCDEP Division of Sewer Regulation and Control), if discharge to sewer exceeds 10,000 gallons per day.
 - c. The Contractor must comply with NYSDEC State Pollutant Discharge Elimination System (SPDES) Permit Number GP-0-10-001, General Permit for Stormwater Discharges.
 - d. Long Island well permit for Brooklyn and Queens sites, if well points are used for dewatering.
 - e. Wastewater quality control application, NYCDEP.
- 3. The WHP for this portion of the work must include the following at a minimum:
 - a. Identification and design of Contractor's proposed treatment to assure that the water meets the NYCDEP sewer use guidelines prior to discharge to the sewer, including identification of all materials, procedures, settling or filtering tanks, filters and other appurtenances proposed for treatment and disposal of contaminated water.
 - b. The name, address and telephone number of the contact for the Contractor's proposed chemical laboratory, as well as the laboratory's certifications under Federal, State or non-governmental bodies.

- c. The name, address and telephone number of the contact for the Contractor's proposed independent Environmental Consultant.
- d. Copies of all submitted permit applications and approved permits the Contractor have received.
- 4. Materials

The Contractor must supply all settling or filtering tanks, pumps, filters, treatment devices and other appurtenances for treatment, temporary storage and disposal of contaminated water. All equipment must be suitable for the work described herein.

- 5. Execution
 - a. The Contractor is solely responsible for disposal of all water, in accordance with all Federal, State and Local regulations.
 - b. The Contractor is solely responsible for any treatment required to assure that water discharged into the sewer is in compliance with all permits and Federal, State and Local statutes and regulations.
 - c. The Contractor is solely responsible for the quality of the water disposed of into the sewers.
 - d. The Contractor is responsible for sampling and testing of water for the NYCDEP Sewer Effluent Limit concentrations. The quality of the data is the Contractor's responsibility. Any sampling and testing must be conducted and paid in accordance with Item 8.01 W2 – Sampling and Testing of Contaminated Water.
 - e. The Contractor will be responsible to maintain the discharge rate to the sewer such that all permit requirements are met, the capacity of the sewer is not exceeded and no surcharging occurs downstream due to the Contractor's actions. Dewatering by means of well points or deep wells will not be allowed in the Boroughs of Brooklyn or Queens where the rate of pumping exceeds forty-five (45) gallons per minute unless the appropriate permit has been secured from the NYSDEC.
 - f. Disposal of Treatment Media
 - (1) The Contractor will be responsible for disposal or recycling of treatment media in accordance with all Federal, State and Local regulations.
 - (2) The Contractor must provide the Engineer with all relevant documentation concerning the disposal of treatment media, including manifests, bills of lading, certificates of recycling or destruction and other applicable documentation.
 - (3) Disposal of treatment media will not be considered as a separate pay item; instead it will be considered as incidental work thereto and included in the unit price bid.

B. Off-Site Disposal

- 1. Regulations: The Contractor must conform to all applicable Federal, State and Local regulations pertaining to the transportation, storage and disposal of any hazardous and/or non-hazardous materials as listed in Attachment 2.
- 2. The following must be submitted to the Engineer prior to initiating any off-site disposal:
 - a. (1) Name and waste transporter permit number

- (2) Address
- (3) Name of responsible contact for the waste transporter
- (4) Any and all necessary permit authorizations for each type of waste transported
- (5) Previous experience in performing the type of work specified herein
- b. General information for each proposed treatment/disposal facility and at least one backup treatment/disposal facility
 - (1) Facility name and USEPA identification number
 - (2) Facility location
 - (3) Name of responsible contact for the facility
 - (4) Telephone number for contact
 - (5) Unit of measure utilized at facility for costing purposes
- c. A listing of all permits, licenses, letters of approval and other authorizations to operate, which are currently held and valid for the proposed facility as they pertain to receipt and management of the wastes derived from this Contract.
- d. A listing of all permits, licenses, letters of approval and other authorizations to operate which have been applied for by the proposed facility but not yet granted or issued. Provide dates of application(s) submitted. Planned submittals must also be noted.
- e. The Contractor must specify and describe the disposal/containment unit(s) that the proposed facility will use to manage the waste and provide dates of construction and beginning of use, if applicable. Drawings may be provided. The Contractor must identify the capacity available in the units and the capacity reserved for the subject waste.
- f. The Contractor must provide the date of the proposed facility's last compliance inspection.
- g. A list of all active (unresolved) compliance orders, agreements, enforcement notices or notices of violations issued to the proposed facility must be submitted. The source and nature of the cause of violation must be stated, if known. If groundwater contamination is noted, details of the facility's groundwater monitoring program must be provided.
- h. Description of all sampling and field/laboratory analyses that will be needed to obtain disposal facility approval.
- 3. Materials

All vessels for temporary storage and transport to an off-site disposal facility must be as required in DOT regulations.

- 4. Execution
 - a. General
 - (1) The Contractor must organize and maintain the material shipment records/manifests required by Federal, State and Local laws. The Contractor must include all bills of lading, certificates of destruction, recycling or treatment and other applicable documents.

- (2) The Contractor must coordinate the schedule for truck arrival and material deliveries at the job site to meet the approved project schedule. The schedule must be compatible with the availability of equipment and personnel for material handling at the job site.
- (3) The Contractor must inspect all vehicles leaving the project site to ensure that contaminated liquids are not spilling and are contained for transport.
- (4) The Contractor must obtain letters of commitment from the waste haulers and the treatment, disposal or recovery facility to haul and accept shipment. The letter must indicate agreement to handle and accept the specified estimated quantities and types of material during the time period specified in the project schedule and any time extension as deemed as necessary.
- (5) The Contractor must verify the volume of each shipment of water from the site.
- (6) The Contractor is responsible for sampling and testing of water for off-site disposal. The quality of the data is the Contractor's responsibility. Any sampling and testing must be conducted and paid in accordance with Item 8.01 W2 – Sampling and Testing of Contaminated Water.
- (7) The Contractor is responsible for any additional analyses required by the TSD facility, and for the acceptance of the water at an approved TSD facility.
- b. Hauling
 - (1) The Contractor must not deliver waste to any facility other than the TSD facility(ies) listed on the shipping manifest.
 - (2) The Contractor must coordinate manifesting, placarding of shipments, and vehicle decontamination. All quantities must also be measured and recorded upon arrival at the TSD facility(ies). If any deviation between the two records occurs, the matter is to be reported immediately to the Engineer and must be resolved by the Contractor to the satisfaction of the Engineer.
 - (3) The Contractor will be responsible for any and all actions necessary to remedy situations involving material spilled in transit or mud and dust tracked off-site. This cleanup must be accomplished at the Contractor's expense.
 - (4) The Contractor will be responsible for inspecting the access routes for road conditions, overhead clearance and weight restrictions.
 - (5) The Contractor must only use the transporter(s) identified in the WHP for the performance of work. Only a transporter with a current Part 364 Waste Transporter Permit from NYSDEC may transport this material. Any use of substitute or additional transporters must have previous written approval from the Engineer at no additional cost to the City.
 - (6) The Contractor must develop, document, and implement a policy for accident prevention.
 - (7) The Contractor must not combine waste materials from other projects with material from this project.
 - (8) The Contractor must obtain for the City a hazardous waste generator identification number and will sign the manifest as the generator, if necessary.

- (9) No material must be transported until approved by the Engineer.
- c. Disposal Facilities
 - (1) The Contractor must use only the TSD facility(ies) identified in the WHP for the performance of the work. Substitutions or additions must not be permitted without prior written approval from OEGS, and, if approved, must be at no extra cost to the City.
 - (2) The Contractor will be responsible for acceptance of the material at an approved TSD facility, for ensuring that the facility is properly permitted to accept the stated material, and that the facility provides the stated storage and/or disposal services.
 - (3) The City reserves the right to contact and visit the disposal facility and regulatory agencies to verify the agreement to accept the stated material and to verify any other information provided. This does not in any way relieve the Contractor of the Contractor's responsibilities under this Contract.
 - (4) In the event that the identified and approved facility ceases to accept the stated materials or the facility ceases operations, it is the Contractor's responsibility to locate an alternate approved and permitted facility(ies) for accepting materials. The Contractor is responsible for making the necessary arrangements to utilize the facility(ies), and the alternate facility(ies) must be approved in writing by the Engineer in the same manner and with the same requirements as for the original facility(ies). This must be done with no extra cost or delay to the City.
- d. Equipment and Vehicle Decontamination
 - (1) The Contractor must design and construct a portable decontamination station to be used to decontaminate equipment and vehicles exiting the exclusion zone. The cost for this work will be paid under Item 8.01 S Health and Safety.

8.01 W1.3 METHOD OF MEASUREMENT

The quantity for on-site treatment and discharge or off-site disposal will be on a per day basis.

8.01 W1.4 PRICE TO COVER

- A. The per day price bid for Item 8.01 W1 will include the cost of furnishing all labor, materials, equipment, plan, and insurance for handling, transportation, disposal, documentation, permits, hauling, mobilization and demobilization, and any other incidentals thereto to complete the work.
- B. The Contractor will not be paid for water that is within the NYCDEP Sewer Discharge Limits.

Payment will be made under:

ITEM NUMBER	ITEM	PAYMENT UNIT
8.01 W1	Removal, Treatment, and Disposal/Discharge of	Day
	Contaminated Water	

ITEM 8.01 W2 SAMPLING AND TESTING OF CONTAMINATED WATER

8.01 W2.1 WORK TO INCLUDE

A. <u>Description</u>

The work will consist of sampling and testing of potentially contaminated groundwater, surface runoff within the excavated area and all contaminated water generated during the decontamination process.

B. <u>Sampling and Testing</u>

- 1. The Contractor is responsible, at a minimum, for sampling and testing of contaminated water for the NYCDEP Sewer Effluent Limit concentrations as listed in Attachment 1, and in accordance with the Engineer-approved SSP/FSP and the Investigation HASP, as specified in 8.01 C2. The quality of the data is the Contractor's responsibility. Any additional testing required by the Federal, State and/or disposal facilities must be included in the bid price of this Item.
- 2. All sampling and testing must be conducted by a person trained in sampling protocols using accepted standard practices and/or the NYSDEC sampling guidelines and protocols.
- 3. All sample containers must be marked with legible sample labels which must indicate the project name, sample location and/or container, the sample number, the date and time of sampling, preservatives utilized, how the sample was chilled to 4 degrees Celsius, and other information that may be useful in determining the character of the sample.
- 4. Chain-of-custody must be tracked from laboratory issuance of sample containers through receipt of the samples.
- 5. The Contractor must maintain a bound sample log book. The Contractor must provide the Engineer access to it at all times and must turn it over to the Engineer in good condition at the completion of the work. The following information, as a minimum, must be recorded to the log:
 - a. Sample identification number
 - b. Sample location
 - c. Field observation
 - d. Sample type
 - e. Analyses
 - f. Date/time of collection
 - g. Collector's name
 - h. Sample procedures and equipment used
 - i. Date sent to laboratory/name of laboratory
- 6. Only dedicated sampling equipment may be used to collect these samples. All equipment involved in field sampling must be decontaminated before being brought to the site, and must be properly disposed of after use.
- 7. Samples must be submitted to the Contractor's laboratory within the holding times for the parameters analyzed.

- 8. All analyses must be done by a laboratory that has received approval from the NYSDOH's ELAP for the methods to be done. The Contractor must specify the laboratory in the WHP.
- 9. Analytical results for water discharged to the sewer and for off-site disposal must be submitted to the Engineer no later than five (5) days after sample collection.
- 10. The City reserves the right to direct the Contractor to conduct alternative sampling in lieu of the parameters described above, if the situation warrants. The substitute sampling parameters will be of equal or lesser monetary value than those described above, as determined by industry laboratory pricing standards.

8.01 W2.2 METHOD OF MEASUREMENT

Quantities for samples will be measured as the number of sets of samples that are tested for the NYCDEP Sewer Effluent Limit concentrations. A set will be defined as one (1) representative sample analyzed for the full range of NYCDEP parameters as specified in Attachment 1.

8.01 W2.3 PRICE TO COVER

The unit price bid per set for Item 8.01 W2 will include the cost of furnishing all labor, materials, equipment, plan, and insurance for handling, transport, sampling, testing, documentation, permits, other incidentals necessary to complete the work of sampling and testing of contaminated water. Any additional costs incurred by the Contractor for sampling and testing of contaminated water will be included in the bid price of this Item.

Payment will be made under:

ITEM NUMBER	ITEM	PAYMENT UNIT
8.01 W2	Sampling and Testing of Contaminated Water	Set

ATTACHMENT 1: NYCDEP LIMITATIONS FOR DISCHARGE TO SEWER

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WASTEWATER TREATMENT

Parameter ¹	Daily Limit	Units	Sample Type	Monthly Limit
Non-polar material ²	50	mg/l	Instantaneous	
pH	5-11	SU's	Instantaneous	
Temperature	< 150	Degree F	Instantaneous	
Flash Point	> 140	Degree F	Instantaneous	
Cadmium	2	mg/l	Instantaneous	
	0.69	mg/l	Composite	
Chromium (VI)	5	mg/l	Instantaneous	
Copper	5	mg/l	Instantaneous	
Lead	2	mg/l	Instantaneous	
Mercury	0.05	mg/l	Instantaneous	
Nickel	3	mg/l	Instantaneous	
Zinc	5	mg/l	Instantaneous	
Benzene	134	ppb	Instantaneous	57
Carbontetrachloride			Composite	
Chloroform			Composite	
1,4 Dichlorobenzene			Composite	
Ethylbenzene	380	ppb	Instantaneous	142
MTBE (Methyl-Tert-Butyl-Ether)	50	ppb	Instantaneous	
Naphthalene	47	ppb	Composite	19
Phenol			Composite	
Tetrachloroethylene (Perc)	20	ppb	Instantaneous	
Toluene	74	ppb	Instantaneous	28
1,2,4 Trichlorobenzene			Composite	
1,1,1 Trichloroethane			Composite	
Xylenes (Total)	74	ppb	Instantaneous	28
PCB's (Total) ³	1	ppb	Composite	
Total Suspended Solids (TSS)	3504	mg/l	Instantaneous	
CBOD ⁵			Composite	
Chloride ⁵			Instantaneous	
Total Nitrogen ⁵			Composite	
Total Solids ⁵			Instantaneous	

Limitations for Effluent to Sanitary or Combined Sewers

1

All handling and preservation of collected samples and laboratory analyses of samples must be performed in accordance with 40 C.F.R. pt. 136. If 40 C.F.R. pt. 136 does not cover the

DDC Project No. MIBBNC04A

pollutant in question, the handling, preservation, and analysis must be performed in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater." All analyses must be performed using a detection level less than the lowest applicable regulatory discharge limit. If a parameter does not have a limit, then the detection level is defined as the least of the Practical Quantitation Limits identified in NYSDEC's <u>Analytical Detectability and Quantitation Guidelines for Selected Environmental Parameters</u>, December 1988

- 2 Analysis for *non-polar materials* must be done by USEPA method 1664 Rev. A. Non-Polar Material will mean that portion of the oil and grease that is not eliminated from a solution containing N–Hexane, or any other extraction solvent the USEPA will prescribe, by silica gel absorption.
- Analysis for PCBs is required if *both* conditions listed below are met:
 1) if proposed discharge ≥ 10,000 gpd;
 2) if duration of a discharge > 10 days.
 Analysis for PCBs must be done by USEPA method 608 with MDL=<65 ppt. PCB's (total) is the sum of PCB-1242 (Arochlor 1242), PCB-1254 (Arochlor 1254), PCB-1221 (Arochlor 1221), PCB-1232 (Arochlor 1232), PCB-1248 (Arochlor 1248), PCB-1260 (Arochlor 1260) and PCB-1016 (Arochlor 1016).
- 4 For discharge \geq 10,000 gpd, the TSS limit is 350 mg/l. For discharge < 10,000 gpd, the limit is determined on a case by case basis.
- 5 Analysis for Carbonaceous Biochemical Oxygen Demand (CBOD), Chloride, Total Solids and Total Nitrogen are required if proposed discharge ≥ 10,000 gpd.

ATTACHMENT 2: APPLICABLE REGULATIONS

Applicable regulations include, but are not limited to:

- 1. 49 CFR 100 to 179 DOT Hazardous Materials Transport and Manifest System Requirements
- 2. 6 NYCRR 375-6 NYSDEC Remedial Program Soil Cleanup Objectives
- 3. 6 NYCRR 360-1 NYSDEC Solid Waste Management Facilities
- 4. 6 NYCRR 364- Waste Transporter permits
- 5. Local restrictions on transportation of waste/debris
- 6. 40 CFR 260 to 272 Hazardous Waste Management (RCRA)
- 7. 6 NYCRR 371 Identification and Listing of Hazardous Wastes
- 8. 6 NYCRR 372 Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities
- 9. 6 NYCRR 373-1 Hazardous Waste Treatment, Storage and Disposal Facility Permitting Requirements
- 10. 6 NYCRR 376 Land Disposal Restrictions
- 11. Posted weight limitations on roads or bridges
- 12. Transportation Skills Programs, Inc. 1985 Hazardous Materials and Waste Shipping Papers and Manifests
- 13. Other local restrictions on transportation of waste/debris
- Occupational Safety and Health Administration (OSHA), Standards and Regulations, 29 CFR 1910 (General Industry)
- 15. OSHA 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response
- 16. OSHA Safety and Health Standards 29 CFR 1926 (Construction Industry)
- 17. OSHA 29 CFR 1910.146 Confined Space Entry Standard
- Standard Operating Safety Guidelines, USEPA Office of Emergency and Remedial Response Publication, 9285.1-03
- 19. NIOSH / OSHA / USCG / USEPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1986)
- 20. U.S. Department of Health and Human Services (DHHS) "NIOSH Sampling and Analytical Methods," DHHS (NIOSH) Publication 84-100
- 21. ANSI, Practice for Respiratory Protection, Z88.2 (1980)
- 22. ANSI, Emergency Eyewash and Shower Equipment, Z41.1 (1983)
- 23. ANSI, Protective Footwear, Z358.1 (1981)
- 24. ANSI, Physical Qualifications for Respirator Use, Z88.6 (1984)
- 25. ANSI, Practice for Occupational and Educational Eye and Face Protection, Z87.1 (1968)
- 26. Water Pollution Control Federation "Manual of Practice No. 1, Safety in Wastewater Works"
- 27. NFPA No. 327 "Standard Procedures for Cleaning and Safeguarding Small Tanks and Containers"
- 28. Occupational Safety and Health Act Confined Space Entry Standard 29 CFR 1910.146.87

- 29. Department of Transportation 49 CFR 100 through 179
- 30. Department of Transportation 49 CFR 387 (46 FR 30974, 47073)
- 31. Environmental Protection Agency 40 CFR 136 (41 FR 52779)
- 32. Environmental Protection Agency 40 CFR 262 and 761
- 33. Resource Conservation and Recovery Act (RCRA)
- 34. Any transporter of hazardous or non-hazardous materials must be licensed in the State of New York and all other states traversed in accordance with all applicable regulations.

ATTACHMENT 3: DEFINITIONS

- **Contaminated Groundwater and Decontamination Fluids:** Groundwater within the excavation trench or decontamination water that contains regulated compounds above the NYCDEP Discharge to Sewer Effluent limits.
- **Disposal or Treatment Facility:** A facility licensed to accept either non-hazardous regulated waste or hazardous waste for either treatment or disposal.
- **Exclusion Zone:** Work area that will be limited to access by Contractor personnel specifically trained to enter the work area only. The exclusion zone will be set up to secure the area from the public and untrained personnel. The project health and safety program will apply to all construction personnel including persons entering the work area.
- Hazard Assessment: An assessment of any physical hazards that may be encountered on a work site.
- Hazardous Soils: Soils that exhibit any of the characteristics of a hazardous waste, namely ignitability, corrosivity, reactivity, and toxicity, as defined in 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261.
- **Hazardous Substance Evaluation:** An evaluation of the possible or known presence of any hazardous substances that may be encountered on a job site. This evaluation is included in the Health and Safety Plan and will include the identification and description of any hazardous substances expected to be encountered. Material Safety Data Sheets (MSDS) will be included for each substance.
- **Health and Safety Plan:** A plan employed at a work site that describes all the measures that will be taken to assure that all work is conducted in a safe manner, and that the health of the workers and the public will be insured.
- **Material Handling Plan:** A plan outlining the methods that will be employed to handle, transport and dispose of contaminated materials.
- **Non-Hazardous Contaminated Soils:** Soils which exhibit a distinct chemical or petroleum odor, or exhibit elevated photoionization detector readings but are not classified as hazardous waste under 6 NYCRR Part 371, Section 371.3 and 40 CFR Section 261.
- **New York State Health Department's Environmental Laboratory Approval Program:** A program by which the state of New York approves and accredits environmental testing laboratories.
- **PCBs:** Polychlorinated biphenyls are a group of toxic compounds commonly used as a coolant in transformers and other electrical components.
- **Photoionization Detector:** A hand held instrument used to measure volatile organic compounds in air. The instrument ionizes the organic molecules through the use of an ultraviolet lamp.
- **RCRA Hazardous Waste Characteristics:** Characteristics of a material which may indicate the material is hazardous. These include: ignitability corrosivity, reactivity, and toxicity.
- **Total Petroleum Hydrocarbons:** An analytical procedure used to determine the total amount of petroleum compounds in a material.



SPECIFICATIONS FOR CONSTRUCTION OF BEST MANAGEMENT PRACTICE (BMP) AND MITIGATION AREA

NOTICE

THE PAGES CONTAINED IN THIS SECTION ARE ISSUED FOR THE PURPOSE OF SPECIFYING THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND HEREBY MADE PART OF SAID CONTRACT DOCUMENTS.

CONSTRUCTION OF BLUEBELT IMPROVEMENTS NEW CREEK BLUEBELT

BOROUGH OF STATEN ISLAND, NY

SPECIFICATIONS FOR

CAPITAL PROJECT NUMBER MIBBNC04A

CONSTRUCTION OF STORMWATER BEST MANAGEMENT PRACTICES (BMP) AND ASSOCIATED FACILITIES: NEW CREEK BMP NC-6 BOUNDARY AVENUE BMP NC-15 LACONIA AVENUE

October 2021 Prepared for the NYC Department of Environmental Protection

By Hazen and Sawyer, D.P.C.

TABLE OF CONTENTS

CONSTRUCTION OF BEST MANAGEMENT PRACTICES

SPECIFIC PROVISIONS

Section No.	Title	Page No.
7.04	Standard Sewer and Water Main Specifications	BMP-10
7.09	Licensed Surveyor for Engineer's Use	BMP-11
7.10	Construction – Special Requirements	BMP-12

STRUCTURES AND EQUIPMENT

Section No.	Title	Page No.
7.101	Structures and Equipment - Work Included	BMP-14
7.102	Dewatering	BMP-15
7.103	Concrete	BMP-21
7.104	Steel Reinforcement	BMP-22
7.105	Welding	
7.107 - B	Rip-Rap Stone/Angular Natural Field Stone	BMP-29
7.110	Sheeting and Bracing	BMP-30
7.111	Valves	DMD 21
7.114-B	FRP Weir Plates	BMP-32
7.117	Graffiti Resistant Coating	
7.120	Trash Rack	DMD 45
7.122	Manhole Steps	BMP-46
7.129	Concrete Structures	BMP-47

MORTARED STONE WALL

Section No.	Title	Page No.
7.201	Mortared Stone Wall - Work Included	BMP-49
7.202	Masonry Mortar	BMP-50
7.203	Masonry Accessories	BMP-54
7.204	PA Colonial Field Stone	BMP-56

EARTHWORK AND GRADING

Section No.	Title	Page No.
7.300	Earthwork and Grading - Work Included	
7.301	Debris Removal and Disposal	BMP-62
7.302	Clearing, Grubbing, and Removals	BMP-64
7.303	Temporary Wooden Tree Guards	BMP-65
7.304	Excavation	DMD (7
7.305	Crushed Stone	
7.306	Tree Removal and Disposal	BMP-69
7.307-A	Grading	DMD 70
7.308	Fill On-Site	BMP-72
7.312	Demolition and Site Clearing	BMP-74
7.317	Soil Sampling and Disposal	

LANDSCAPING AND RESTORATION

Title	Page No.
Landscaping and Restoration - Work Included	BMP-77
Landscaping for Terrestrial Zone and Wetland Zone	BMP-78
Seeding	BMP-94
Top Soil for Restored Area	BMP-101
Restoration Specialist (Construction Monitor)	BMP-106
Vector, Pest and Wildlife Control	BMP-110
Herbicide Application	BMP_115
Watering and Weeding During Guarantee Period	BMP-119
Temporary Goose Exclusion Fence	BMP-121
DMD A a Dwilt Dlang	DMD 122
Tree and Root Pruning	BMP-128
	Landscaping and Restoration - Work Included Landscaping for Terrestrial Zone and Wetland Zone Seeding Top Soil for Restored Area Restoration Specialist (Construction Monitor) Vector, Pest and Wildlife Control Erosion Control Mat – Straw Herbicide Application Watering and Weeding During Guarantee Period Temporary Goose Exclusion Fence BMP As-Built Plans Vine and Invasive Plant Removal Tree and Root Pruning

EROSION AND SEDIMENTATION CONTROL MEASURES

Section No.	Title	Page No.
7.500	Soil Erosion and Sedimentation Control Measures	BMP-135
7.501	Maintenance of Erosion Control Measures	BMP-138
7.502	Construction Limit Fence	
7.504-A	Silt Fence	D) (D 1 1 1
7.506	Sediment Trap with Filter	
7.509-A	Stabilized Construction Entrance	BMP-143
7.510	Portable Sediment Tank	
7.512	Dirtbag	

PERIMETER SITE SECURITY/ACCESS CONTROL MEASURES

Section No.	Title	Page No.
7.600	Perimeter Site Security/Access Control Measures	BMP-148
7.601-B	Galvanized Steel "W" Beam Guide Rail and Guide Rail Gate	BMP-149
7.603	Fixed and Removable Steel Pipe Bollards	BMP-153
7.604	Black Chain Link Fence	BMP-156
7.605	Sign Installation on Steel Posts	BMP-163
7.606	Permanent Maintenance Accessway	BMP-173
7.608	Survey Bollards and Survey Monuments	

STREAMBANK STABILIZATION

Section No.	Title	Page No.
7.700	Streambank Stabilization – Work Included	BMP-181
7.710	Reno Mattress	BMP-182

OUTFALL CONSTRUCTION DIVISION VII

SPECIFIC PROVISIONS

7.01 <u>LOCATION OF WORK</u>

NO TEXT ON THIS SECTION

7.02 WORK INCLUDED

NO TEXT ON THIS SECTION

7.03 <u>INSPECTION BEFORE BIDDING AND MANDATORY PRE-BID</u> <u>CONFERENCE</u>

NO TEXT ON THIS SECTION

- 7.04 STANDARD SEWER AND WATER MAIN SPECIFICATIONS
- A. <u>Roadway Repair and Resurfacing</u>

Unless otherwise specified, all work, materials, and equipment must conform to the applicable sections of the New York City Department of Transportation (NYCDOT) Standard Highway Specifications, August 2015.

B. <u>Sewer</u> Work

Unless otherwise specified, all work, materials, and equipment must conform to the applicable sections of the New York City Department of Environmental Protection Bureau of Water and Sewer Operations Standard Sewer and Water Main Specifications, July 2014 (NYCDEP Standard Sewer and Water Main Specifications).

7.05 <u>INSPECTION BY THE CITY, STATE AND FEDERAL</u> <u>GOVERNMENT</u>

NO TEXT ON THIS SECTION

7.06 EXISTING UTILITIES

NO TEXT ON THIS SECTION

7.07 <u>PERMITS REQUIRED</u> NO TEXT ON THIS SECTION 7.08 <u>LAND FOR CONTRACTOR'S USE</u> NO TEXT ON THIS SECTION 7.09 <u>LICENSED SURVEYOR FOR ENGINEER'S USE</u>

The Contractor must engage the services of a New York State licensed surveyor as approved by the Engineer and reporting directly to the Engineer to make such surveys, as-builts, soundings, cross sections or other measurements as may be required by the Engineer for construction. Surveying services included in the item are for the sole use of the Engineer. The surveyor may be used by the Engineer to verify grades, but surveying services needed for activities not related to headwalls, outlet stilling basin and/or streambank stabilization construction is the responsibility of the Contractor and is not provided under this item.

B. <u>Measurement and Payment</u>

Work Included

A.

The Contractor for this Contract must include in its total bid a per diem cost for the services performed by the Licensed Surveyor. This cost must be shown on the Bid Schedule of Prices as Item No. BMP-7.09.

Measurement for payment must be on a per diem basis. One day must consist of any eight (8) hour time period from 7:00 AM to 6:00 PM Monday through Friday plus travel time, not including holidays. The per diem rate must include the services of a three-person surveying crew and personnel required for delivering the survey in the formats described in section 7.09.C. The Engineer must be present during the progress of Work and the Engineer must deem as to whether a full eight-hour period had been employed in completing the Work, and as to whether the Contractor has utilized its crew at the productivity output required to complete the Work as anticipated. The surveyor will submit invoices to the Engineer, which will be forwarded to the Contractor for prompt payment. Payments must be made for invoiced costs only, with no payment for overhead and profit.

C. <u>Submittals</u>

The survey drawing must be provided in an AutoDesk (AutoCAD) drawing file (.dwg), portable document format (pdf) and two (2) hard copies of signed and sealed survey drawings by a New York State licensed

Professional Land Surveyor including the name and license number of the surveyor, the name and address of the survey firm, date of survey, and datum referenced.

7.10 <u>CONSTRUCTION - SPECIAL REQUIREMENTS</u>

A. <u>Field Measurements</u>

The Contractor must take all necessary measurements in the field in accordance with NYCDOT Standard Highway Specifications Section 1.06.11, to determine the exact dimensions for all work and verify all pertinent data and dimensions shown on the Contract Drawings.

B. Excavated Material

Unsuitable excavated material must be removed from the site together with all debris encountered in the excavations and the costs of such removal and disposal must be included in the unit price bid for the applicable items in this Contract.

C. <u>Access Requirements</u>

The Contractor is advised that he must provide access to the sites of the work for all other Contractors and that access to the sites of the work performed under all contracts must be closely coordinated and scheduled with all other Contractors at the various sites during the life of this Contract.

D. <u>Protection of Archeological Resources</u>

In order to protect specific archaeological resources where there is a significant potential impact, the Contractor shall be required to conduct a Phase 1B study (Archaeological Testing) for the NC-6 property prior to commencement of any construction activities in these areas, as directed by the Engineer.

To perform this work, the Contractor shall obtain cost proposals from a minimum of three (3) qualified firms experienced in archeological testing.

Prior to the Contractor entering into an agreement with any Consultant(s) in order to satisfy these requirements, the Contractor shall first ascertain from the DEP the related accumulated research and information already assembled on the subject. The Contractor shall forward this information to the prospective and selected consultant(s).

The Phase 1B Study shall be conducted according to the requirements of the New York City Landmarks Preservation Commission (LPC) and New York's State Historic Preservation Office (SHPO).

The Phase 1B Study would involve several shovel tests that would be used to determine the presence or absence of any Native American archaeological resources. The Phase 1B archaeological field testing would be implemented as part of the proposed project and would not commence until review and approval of a testing protocol by LPC and SHPO. All Phase 1B testing would be performed by a certified professional archaeologist and in accordance with a protocol that meets LPC's Guidelines for Archaeological Work in New York City (latest edition), the recommendations of the New York State Education Department, Cultural Resources Survey Program, and SHPO standards. The archaeology team would also be required to notify both LPC and SHPO when testing is scheduled to begin and it is anticipated that staff from each agency may visit the site during the testing process. Once the testing is completed, the archaeologist would also be required to submit a Phase 1B report that documents the field investigations and findings to LPC and SHPO.

Payment for the work related to the Phase 1B study shall be included on the Bid Schedule of Prices as Item No. BMP-7.10.

E. <u>Tree Removal</u>

The Contractor is hereby notified that every effort shall be made to complete the tree clearing task on site during the winter months when birds are not breeding. If tree clearing must occur during the bird breeding season from April 1 to October 30, the Engineer shall inform the Natural Resources Group (NRG) at the NYC Department of Parks and Recreation before any clearing begins. In concert with NRG, the Restoration Specialist shall be responsible for conducting surveys to ensure there is no taking of birds under the Migratory Bird Treaty Act before the tree clearing begins.

7.101 STRUCTURES AND EQUIPMENT - WORK INCLUDED

Under structures and equipment work, Contractor must furnish all labor, materials and equipment and must do all work as specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

The work must include items of work specified under the following sections:

Section No.	Title
7.102	Dewatering
7.103	Concrete
7.104	Steel Reinforcement
7.105	Welding
7.107-В	Rip Rap Stone/Angular Natural Field Stone
7.110	Sheeting and Bracing
7.111	Valves
7.114-В	FRP Weir Plates
7.117	Graffiti Resistant Coating
7.120	Trash Rack
7.122	Manhole Steps
7.129	Concrete Structures

7.102 <u>DEWATERING</u>

A. <u>Description of Work</u>

The Contractor must furnish, install, operate and maintain dewatering equipment as required, for construction work as specified herein. The dewatering equipment must include, but not be limited to, the following equipment items:

- 1. Pumps
- 2. Piping
- 3. Accessories
- 4. Wells.
- B. <u>General Requirements</u>
 - 1. <u>General Specifications</u> Work performed under this Section must be in conformance with Section 40.02 of the NYCDEP Standard Sewer and Water Main Specifications.
 - 2. <u>Examination of the Sites</u> The Contractor must take all steps that he considers necessary to familiarize himself with the surface and subsurface conditions at the site, and must obtain the data that is required to analyze the water and soil conditions at the site. Any results of subsurface investigations made as part of the design of this project will be made available to the Contractor.
 - 3. <u>Shop Drawings</u> The Contractor must submit to the Engineer for approval shop drawings and any other material required to substantiate conformance with the requirements set forth in the specifications. Shop drawings must <u>include</u> a detailed plan of operations.
 - 4. All dewatering activities required for all construction areas shown on the Contract Drawings, must be performed in accordance with Section 40.14 – Dewatering Permits in the SW pages. The Contractor must also obtain the dewatering permits listed in Section 40.14 – Dewatering Permits.

C. <u>Dewatering</u>

1. <u>General Information</u> - The Contractor must perform dewatering activities to ensure that all construction is performed under dry

conditions. If a well point system is proposed, the Contractor must utilize a well driller licensed in the State of New York. The Contractor must always drill down to sand or gravel layer when available and when it is below the lowest excavated elevation.

The Contractor must operate the dewatering pumps continuously, a day before and during construction until all associated work within the influence zone of the well point have been completed.

2. <u>Care and Disposal of Water</u> - Care of water must be in accordance with Section 15 - 1525 of the Environmental Conservation Law.

Water from open cut and/or sheeted excavations, manholes, structures, trenches, or from whatever source, must be disposed of strictly in accordance with methods approved by the Engineer.

The Contractor must submit proposed dewatering methods to the New York State Department of Environmental Conservation and New York City Department of Environmental Protection for the required permits as required in Section 40.14– Dewatering Permits. If a well point dewatering system is proposed, the Contractor must utilize a well driller licensed in the State of New York. Contractor must contact NYSDEC a minimum of 30 calendar days in advance of dewatering system startup.

When required by the Engineer, such water must be passed through a settling basin and tank of acceptable size and shape and equipped with an overflow. Each settling basin must be cleaned as required and as ordered by the Engineer.

Sufficient water to flush all sewers and drains must be provided by the Contractor when necessary. If any sewer, drain, catch basin, inlet or gutter, that receives dirty water attributable to the Site, should become filled or partially filled with sediment or debris, the Contractor must promptly and satisfactorily remove such deposits.

D. <u>Design Criteria</u>

1. Provide dewatering system which will lower and maintain hydrostatic pressure and groundwater levels to 2 feet below the prevailing excavation level or to a point no higher than 2 feet above the top of an impermeable stratum, if the subgrade is in the impermeable stratum. Groundwater levels shall be lowered for a time period as deemed necessary by the Engineer to ensure adequate factor of safety for the constructed structure.

- 2. Design dewatering methods so that the effluent discharge from the sediment control measures (sump pit, sediment tank) does not impact surface water using the following protocol which was developed to monitor dewatering effluent discharge:
 - a. Monitoring of Dewatering Operations

Prior to the start of dewatering operations, a visual inspection of the installation of the sediment control measure(s) such as a dewatering sump pit and/or a portable sediment tank must be made by the Engineer. Upon commencement of dewatering effluent discharge from the sediment control measures, at least three turbidity measurements of the effluent must be conducted over a 15 minute-period using the following methodology. If the arithmetic mean of these three turbidity measurements is greater than the ambient turbidity level, all dewatering operations must be discontinued until the Engineer is consulted regarding additional control measures.

E. <u>Submittals</u>

Submit the following for approval:

- 1. Working Drawings
 - a. Type of dewatering system proposed, showing arrangement, location and depths of proposed system, complete description of equipment and materials to be used, procedure to be followed, standby equipment, standby power supply and proposed location(s) of points of discharge of water.
 - b. Obtain approval from the Engineer and appropriate regulatory agencies prior to installation of system.
- 2. Prior to the start of construction dewatering, submit a report comparing site groundwater quality data with the NYSDEC, Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality and Guidance Values and Groundwater Effluent Limitations and any other water quality standards, including NYCDEP Effluent Limitations if discharge into a sewer, to be complied with under permit(s) as applicable to the project.

F. Job Conditions

1. <u>Subsurface Conditions</u>

a. Subsurface investigations and groundwater level determinations must be conducted by the Contractor prior to implementation as specified herein.

2. <u>Responsibilities</u>

- a. Select and install dewatering system to accomplish groundwater control as specified.
- b. Monitor quality of discharge from dewatering system to determine if soil particles are being removed by system.
- c. Measure to ascertain if movement is caused in adjacent areas by dewatering operations; take approved measures to minimize such movement.
- d. Take measures to prevent damage to property.
- e. Repair as approved damage, disruption or interference resulting directly or indirectly from dewatering operations.
- f. Remove sediments from all intercepted groundwater or surface water as specified herein and approved by the Engineer and the jurisdictional agency concerned. Under no circumstances must the Contractor directly discharge, without treatment, into the drainage channel or creek.

G. <u>Sump Pit</u>

The Contractor, at the direction of the Engineer must provide a stone filled pit with perforated standpipe/nozzle wrapped with filter fabric in which intercepted groundwater is pumped to an approved location.

The size and shape of the sump pit will vary due to site conditions. The size of pump should be determined from manufacturer's specifications.

1. The standpipe must be a perforated 12"-24" diameter corrugated metal or PVC pipe.

- 2. A base of 2" aggregate must be placed in the pit to a depth of 12". After installing the standpipe, the pit surrounding the standpipe must then be backfilled with 2" clean aggregate.
- 3. The standpipe must extend 12"-18" above the lip of the pit.
- 4. The standpipe must be wrapped with filter fabric before installation. If desired, 1/2" x 1/2" hardware cloth may be placed around the standpipe, prior to attaching the filter fabric. This will increase the rate of water seepage into the pipe.

H. <u>Surface Drainage</u>

- 1. Intercept and divert surface drainage away from the splash pad or other excavations, wells by use of dikes, ditches, swales, open stone lined channel, temporary diversion pipes which could be either on the surface or buried, sumps or other means. To properly install buried diversion pipe the contractor may be required to excavate.
- 2. Design surface drainage systems to prevent erosion on or off the site or unwanted water flow.
- 3. Remove surface drainage system when no longer required.
- 4. Remove debris and restore site(s) to original conditions.
- I. Drainage of Excavated Areas
 - 1. Provide and maintain ditches of adequate size to collect surface and subsurface water and seepage which may enter excavations and divert water into sump so that it can be drained or pumped into drainage channels as approved by the Engineer and NYSDEC.
 - 2. Install settling basins or other approved apparatus as necessary to reduce the amount of fine particles carried by water diverted away from excavation.
 - 3. When no longer necessary, backfill and seal drainage ditches, sumps and settling basins with approved material.
- J. <u>Execution</u>
 - 1. Install dewatering system as specified and with the approval of the Engineer.

- 2. Demonstrate by approved methods that no soil particles are present in water after 12 hours of initial pumping or draining and additionally as directed.
- 3. Dispose of precipitation and subsurface water away and clear of the work area. Keep excavation dry.
- 4. Maintain continuous and complete effectiveness of the installation.
- 5. Maintain water level at such elevation that no damage to structure or plant material can occur because of excessive hydrostatic pressure. In any event, maintain water level two feet minimum below bottom of subgrade until sufficient concentrate work or backfilling or both has been completed to adequately offset uplift pressures.

K. Dewatering System Removal

- 1. Remove and dispose of all stone, filter fabric and piping that comprise curtain drains and/or sump pits used in dewatering in accordance with Federal, State and local regulations at a permitted site.
- 2. Backfill remaining space as necessary to restore surface and subsurface to its original or proposed condition in accordance with the Engineer's approval.

L. <u>No Separate Payment</u>

No additional or separate payment will be made for any work described herein. The costs for all labor, materials, equipment, permit fees, samples, tests, reports, services and insurance required or necessary to perform all the work described herein shall be included in the price bid for all items of work.

7.103 <u>CONCRETE</u>

A. <u>General Requirements</u>

Concrete must conform to all requirements of the General Specification 11 Concrete (Dated November 1991) except as modified in Section 23.01 of the NYCDEP Standard Sewer and Water Main Specifications.

Nonstructural concrete does not include steel reinforcement and is used for stone embedment, and fill concrete or as noted on the Contract Drawings.

The Contractor must submit to the Engineer for approval shop drawings and other materials required in accordance with the requirements set forth on the Contract Drawings and General Specification 11 Concrete.

B. <u>Measurement and Payment</u>

The quantity to be measured for payment under this Section must be the total number of cubic yards of approved additional or requested concrete placed as directed by the Engineer, as required under Chapter 20 in the "Measurement and Payment" of General Specification 11 - Concrete.

The contract price per cubic yard of approved structural and nonstructural concrete shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.103-A (Non-Structural) and Item No.BMP-7.103 (Structural). The bid prices must constitute full compensation for all labor, materials, equipment and work incidental thereto, necessary to complete this item in accordance with the plans and specifications to the satisfaction of the Engineer

All costs for structural concrete in a Concrete Structure as identified in Section 7.129 must be included under the unit bid price for Concrete Structures Section 7.129.

7.104 <u>STEEL REINFORCEMENT</u>

Steel reinforcement must conform to the requirements of Chapter 5 - General Specification 11 Concrete, except as modified in Section 23.01 of the NYCDEP Standard Sewer and Water Main Specifications.

No separate payment will be made for this work of this specification. All costs must be included in the various Contract Items of this Contract.

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7.105 <u>WELDING</u>

A. <u>Description of Work</u>

The Contractor must perform all welding for steel members as indicated on the Contract Drawings and as specified herein.

- B. <u>General Requirements</u> All welding must be in accordance with specified standards as modified or supplemented by these Specifications. No welding must be done when the base-metal temperature is lower than 32 degrees Fahrenheit. The subcontractor must be responsible for the quality of the welding and must set up and record procedures for welding all metals included in the work, Welding must not be started until procedure, welders, and welding operators have been qualified by tests and copies of all records and reports submitted for approval. Costs of such testing must be borne by the Contractor. Each weld shown or indicated on the Contract Drawings must be made as specified on the approved procedure specifications provided to cover each type of weld. Welding of any special steel must adhere, without deviation, to the written instructions of the steel manufacturer.
 - 1. <u>Welded Construction</u> Welded construction must be used only where indicated on the Contract Drawings and approved shop drawings. The AWS Specification D1.1 (latest edition) Structural Welding Code or AWS D1.4 (latest edition) Structural Welding Code - Reinforcing Steel, as applicable and other requirements of this Section must apply to the welded joints. Unless otherwise specified, welding must be by automatic submerged arc or semiautomatic submerged arc.
 - 2. <u>Test Specimens</u> Test specimens must be prepared by the Contractor for each type of welded joint as designated in paragraph entitled Procedure Qualification. Destructive tests of specimens for procedure and welder qualifications must be conducted in accordance with AWS D1.1, Section 4, Qualifications, and the requirements specified herein.
 - 3. <u>Groove Welds</u> All groove welds must be 100 percent complete penetration welds as defined in AWS D1.1 or shown in AWS D1.4 for reinforcing steel, regardless of whether a backup plate is shown, or whether the supplementary backing weld or melt-through symbol is included, in each groove-weld symbol shown, unless partial penetration is included in the weld symbol.

C. <u>Welding Procedure</u>

- 1. General Information - Welding procedures and procedure qualification tests must be required for all welding covered by this specification to demonstrate that the combination of process, material, and technique produces the desired welds. These procedures, when qualified, become the welding procedure specification which must be followed in making weldments on materials within ranges shown in the Contract Drawings (and Specifications), and provide a means of assuring reproducible results and quality control. Procedure specifications and procedure qualification test results must be kept by the Contractor and must be available for examination by the Engineer. Five copies of the procedure specifications and test results must be submitted for approval. Welding procedure specifications and tests must be individually identified or completed on the shop details and erection drawings. Welding must not be performed on any contract item before approval of procedure specification and qualification testing by the Engineer.
 - a. <u>Welding Procedure Specification</u> A separate Procedure Specification must be prepared for each type of weld which varies in accordance with the definition of essential changes as listed in AWS D1.1, Section 5.
 - b. <u>Procedure Qualification</u> Each type of weld made by a specific process must be qualified by tests as specified in AWS D1.1 or as specified herein for reinforcing steel.
 - c. <u>Procedure Specification Requalification</u> When an essential variable, as specified in AWS D1.1, is changed, the procedure must be requalified.
 - d. <u>Dissimilar Steels</u> Where dissimilar steels are welded together, the procedure must be the same as for the lower-strength steel.
 - e. <u>Groove Welds</u> All groove welds must be 100 percent complete penetration welds as defined in AWS D1.1 or shown in AWS D1.4 for reinforcing steel, regardless of whether a backup plate is shown, or whether the supplementary backing weld or melt-through symbol is included, in each groove-weld symbol shown, unless partial penetration is included in the weld symbol.

- f. <u>Welded Studs</u> Gun welded studs must conform with the requirements of AWS D1.1, Section 7.
- g. <u>Electrodes</u> Electrodes for structural steel welding must conform with AWS D1.1, Section 4, as applicable.

D. <u>Performance Certification Of Welders And Welding Operators</u>

- 1. <u>General Information</u> Each welder and welding operator assigned to work on this Contract must be certified in conformance with AWS D1.1, the requirements of this Specification. Welders must be New York City certified, and all welding must be done in conformity with the New York City Building Code.
 - a. <u>Welder's Certificates</u> Upon completion of the applicable qualification tests, each welder and welding operator must be provided with a certificate by the Contractor. The certificate must state the type of welding and positions for which he is qualified, the code under which he is qualified, and the firm or individual certifying the qualification tests. The certificate must be kept on file at the job site by the Contractor and must be made available for examination and approval by the Engineer. The certificate will remain in effect except when requalification of the welder or welding operator is required as specified in AWS D1.1 and the requirements of this Specification.
 - b. <u>Welder's Identification</u> The Contractor must assign each welder identifying number, letter, or symbol which must be used by the welder to identify all welds made by him. For identification, the welder must lightly stamp its symbol adjacent to the weld by means of a metal stamp.
 - c. <u>Welder's Record</u> The Contractor must maintain a record of all welders and welding operators employed on the Contract showing the date and results of tests and the identification mark assigned to each welder. These records must be certified by the Contractor and made accessible to authorized personnel. Copies of the record must be furnished to the Engineer.
 - d. <u>Technique</u> Technique must conform to AWS Specification D1.1, Section 4, entitled Technique, and the requirements of this Specification.

E. <u>Supervision</u>

All shop and field welding must be under the immediate supervision of a representative of a standard testing agency or an approved inspection agency reporting directly to, and under the control of, the Department of Design and Construction. The Contractor must submit the name of such agency to the Commissioner for approval before starting work. The costs of all welding inspections and tests must be borne by the Contractor.

F. Inspection and Tests During Construction

The Engineer will make periodic checks of each welder to determine that welds are being made as specified in the approved procedure specifications. Welding speed may be estimated. All welds will receive 100 percent visual inspection by the Engineer to determine weld size and profile, surface cracks, overlap, and undercut. The Engineer reserves the right to perform any test on any weld, including liquid penetrant, magnetic particle, radiographic, and ultrasonic.

G. <u>Acceptance Requirements</u>

- 1. Welds, other than stud welds, are acceptable if inspection indicates conformance within the following limitations:
 - a. <u>Cracks</u> All welding exhibiting any cracks, either in the weld metal or the parent metal, will be rejected.
 - b. <u>Undercut</u> Undercut must not be more than 1/32 inch deep.
 - c. <u>Convexity or Reinforcement</u> Convexity or reinforcement of a weld face must not exceed the limits shown in AWS D1.1, and there must be no overlap.
 - d. <u>Fusion</u> Incomplete fusion or lack of penetration will not be allowed.
 - e. <u>Small Inclusions</u> Slag inclusions, porosity, and other fusion defects less than 1/16 inch in greatest dimension will be allowed if well dispersed and the sum of the greatest dimensions in any linear inch of welded joint does not exceed 3/8 inch.
 - f. <u>Large Inclusions</u> Slag inclusions, porosity, and other fusion defects 1/16 inch or larger in greatest dimension will be

allowed providing such defects do not exceed the limits specified in AWS D1.1.

H. <u>Repair of Defective Welds</u>

- 1. In lieu of rejection of an entire piece or member containing welding which is unsatisfactory or which indicates inferior workmanship, the corrective measures listed hereunder may be permitted by the Engineer whose specific approval must be obtained for making each correction. Corrective measures must be made at the Contractor's expense and to the satisfaction of the Engineer and/or an acceptable independent testing lab
- 2. <u>Defective or Unsound Welds or Base Metal</u> Defective or unsound welds or base metal must be corrected either by removing and replacing the entire welds, or as follows:
 - a. <u>Convexity and Overlap</u> Excessive convexity and overlap, defined in paragraph Acceptance Requirements, must be reduced by removal of excess weld metal.
 - b. <u>Concavity</u> Any concavity of weld, crater, undersize welds, undercutting: clean and deposit additional weld metal.
 - c. <u>Discontinuities</u> Excessive weld porosity, slag, inclusions, defined in the paragraph entitled Acceptance Requirements, and incomplete fusion: remove defective portions and reweld.
 - d. <u>Cracks</u> Cracks in weld or base metal: remove crack throughout its length, including sound weld metal 2 inches beyond each end of the crack; follow by the required rewelding.
- 3. <u>Removal</u> The removal of weld metal or portions of the base metal must be done by chipping, grinding, oxygen cutting, oxygen gouging, or air carbon-arc and in such a manner that the remaining weld metal or base metal is not nicked or undercut. Defective portions of the weld must be removed without substantial removal of the base metal.
- 4. <u>Additional Metal</u> Additional weld metal must be deposited using an electrode smaller than that used for making the original weld, and not more than 5/32 inch diameter. The surface must be cleaned thoroughly before welding.

BMP-27

- 5. <u>Inaccessibility</u> Where work performed subsequent to the making of a deficient weld has rendered the weld inaccessible or has caused new conditions which would make the correction of the deficiency dangerous or ineffectual, the original conditions must be restored by removing the welds or members, or both, before making the corrections, or the deficiency must be compensated for by additional work done according to an approved revised design.
- 6. <u>Caulking</u> Caulking of welds must not be permitted.
- 7. <u>Improper Fit</u> Improperly fitted parts may be cut apart and rewelded. Members distorted by welding must be straightened by mechanical means or by carefully supervised application of a limited amount of localized heat. The temperature of heated areas must not exceed 1,200 degrees F (a dull red color). Temperature must be carefully measured with temperature indicating crayons during the heating operation. Parts to be heated for straightening must be substantially free of stress and from external forces, except those stresses resulting from mechanical means used in conjunction with the application of heat.
- 8. <u>Peening</u> No peening must be done on the root or surface layers of a weld. Peening of intermediate weld layers may be used only if authorized by the Engineer and directed by him. Care must be exercised to prevent overpeening which may cause overlapping, scaling, cracking, flaking, or excessive cold working of weld and base metal.

I. <u>No Separate Payment</u>

No separate payment will be made for this work of the specification. All costs must be included in the various Contract Items of this Contract.

7.107-B <u>RIP-RAP STONE / ANGULAR NATURAL FIELD STONE</u>

Rip-rap must conform to the requirements of Section 70.71 of the NYCDEP Standard Sewer and Water Main Specifications. Contractor must submit Shop Drawings for all rip-rap material in accordance with the materials specified in Section 70.71 and Contract Drawings for the approval of the Engineer.

No separate payment will be made for this work of the specification. All costs must be included in the various Contract Items of this Contract.

7.110 SHEETING AND BRACING

Sheeting and bracing must conform to the requirements of Section 40.05 of the NYCDEP Standard Sewer and Water Main Specifications. Contractor must submit Shop Drawings detailing the sheeting system in accordance with Section 70.71 and Contract Drawings for the approval of the Engineer.

No separate payment will be made for this work of the specification. All costs for the installation of sheeting and bracing performed in conjunction with the construction and installation of concrete structures will be included under the unit bid price for Concrete Structures Section 7.129.

7.111 <u>VALVES</u>

Valves must conform to the requirements of Section 20.05 Standard Specifications For Resilient-Seated 3-Inch Through 20-Inch Gate Valves of the NYCDEP Standard Sewer and Water Main Specifications. Contractor must submit Shop Drawings for valves in accordance with the materials specified in Section 20.05 and Contract Drawings for the approval of the Engineer.

No separate payment will be made for this work of the specification. All costs must be included in the unit cost of the Concrete Structures item, specification section 7.129.

7.114-B <u>FRP WEIR PLATES</u>

A. <u>Work Included</u>

- 1. <u>Description</u> The Contractor must provide all labor, materials, equipment and incidentals as shown, specified and required to furnish and install fiberglass-reinforced weir plates complete and operational with all anchor bolts, fasteners and accessories.
- 2. <u>Shop Drawings</u> The Contractor must submit to the Engineer for approval shop drawings and other material required in accordance with the requirements set forth on the Contract Drawings and the Specifications. Shop drawings include, but are not limited to:
 - a. Manufacturer's literature, illustrations, specifications and engineering data including: materials of construction, dimensions, weight and performance data.
 - b. Drawings showing the general arrangement of the weir and methods of installation with detailed mounting information.

B. <u>Materials</u>

- 1. <u>General Information</u> FRP weir plates must be 1/2" thick unless otherwise noted and constructed to the dimensions as per Contract Drawings.
- 2. Bolting hardware must be locking type.
- 3. Bolting Hardware must be type 316L stainless steel for all bolts, nuts and washers.
- 4. A neoprene side seal must be placed on the sides of the weir plates. The neoprene side seal material must be D2000 grade 2BC515.

C. <u>Details of Construction</u>

- 1. Weir plates must be type I fabricated as defined in Section 1.1 of AWWA F102.
- 2. Weir plates must be constructed with the following material:
 - a. Fibrous Glass: Materials used must be continuous filament Type E (electrical borosilicate), glass with a chrome or silane finish and a styrene soluble binder compatible with

BMP-32

the resin. Surfacing veil, if used, must be 0.010 to .020 inch thick Type C (chemical) or equivalent with silane finish and a styrene soluble binder on both sides.

- 3. <u>Additives:</u> Use thixotropic agents, mold release agents, promoters catalysts and low-shrink thermoplastic agents required for molding compounds used in the matched-die molding.
- 4. <u>Plastic Resin:</u>
 - a. Resin must be a commercial-grade polyester thermosetting resin, which has either been evaluated in a laminate or which has been determined to be acceptable for the service conditions intended.
 - b. Resin must contain no fillers or additives except as follows:
 - 1. A thixotropic agent, up to 5 percent by weight, which does not interfere with laminate quality or with the required chemical resistance of the laminate, may be added for viscosity control.
 - 2. Pigments, dyes or colorants used must be light stable, not soluble in water and compatible with the resin. Color must be selected by the Engineer.
 - 3. Ultraviolet Stabilization: Provide 0.25 percent by weight ultraviolet stabilizers in all laminates. The laminate must exhibit not greater than 2 percent deterioration of flexural and tensile properties after 1000 hours of exposure in a Type E, single open-flame, sunshine carbon-arc lamp apparatus as detailed in ASTM G23.

D. Laminate Construction For Weir Plates

1. <u>General</u>: Produce fiberglass-reinforced plastic fabrications by the matched-die molding process to ensure smooth resin-rich surfaces and edges, dimensional accuracy and consistency. Mold weir plate notches within dies for increased corrosion and weather resistance. Sand and seal all cut edges with non air inhibited resin to ensure edges are completely sealed and to prevent water or chemical penetration of laminate. The laminate must consist of exterior layer and an interior layer.

- 2. <u>Exterior Layer</u>: The exterior surface must be free of cracks and crazing with a smooth finish. This surface must consist of 0.01 to 0.02 inch of resin-rich layer reinforced with chopped strand glass. Other methods of surface protection must be submitted to the Engineer for approval.
- 3. <u>Interior Layer</u>: The interior layer must be constructed to provide the necessary physical properties. Where separate layers such as mat, cloth or woven roving are used, all layers must be lapped a minimum of one inch. Laps must be staggered. If woven roving or cloth is used, a layer of chopped strand glass must be placed as alternate layers. A minimum of 0.1 inch of the laminate next to the exterior surface must be reinforced with non-continuous glass strands having fiber lengths from 0.5 to 2.0 inches.

Laminate glass to resin ratio must be 30 percent glass and 70 percent resin.

- 4. <u>Cut Edges</u>: All cut or machined edges must be coated with resin with all voids filled and no glass fibers exposed.
- 5. <u>Dimensions:</u>
 - a. Flat Crested Weir Edge; Weir plates must be straight and vary not more than $\pm 1/8$ inch in 3 feet.
 - b. Weir Plate Anchor Bolt Holes/Slots Holes for wall mounting must be dimensioned as shown on contract drawings. Variation in center-to-center dimensions between holes must not exceed $\pm 1/8$ inch.

6. <u>Finish and Appearance:</u>

- a. The flat surfaces and edges of all weir plates, baffles, mounting brackets, closure plates and gates must be free from porosity, voids and dry glass. Make surfaces and edges resin-rich to provide maximum resistance to corrosion and weathering.
- b. Fabrications containing porosity, voids, dry glass, delamination or defects not allowed in Table 1 of AWWA F102 may be rejected. Repair of defects to meet maximum allowable level of deviation specified in Table 1 of AWWA F102 will be permitted provided repair work is performed in a neat manner, is blended smooth and does not affect the

serviceability of the fabrication. All such remedial work must be subject to approval of Engineer.

7. <u>Minimum Physical Requirements</u>: All laminates must meet the minimum physical properties listed below:

Value of Property	Test Method	Property
Tensile Strength	ASTM D638	15 x 10 ³ psi
Flexural Strength	ASTM D790	25 x 10 ³ psi
Flexural Modulus	ASTM D790	0.8 x 10 ⁶ psi
Barcol Hardness	ASTM D2583	40
Izod Notched Impact	ASTM D256	13 ft-lb/in.
Water Absorption (24 hr @ 23°C)	ASTM D570	0.1% max.

E. <u>Accessories</u>

1. Provide all mounting brackets, anchor bolts, supports, stabilizing bars, angles or rods, fasteners and similar accessories required for installation of the equipment furnished. All metal accessories must be Type 316 stainless steel.

F. <u>Manufacturer</u>

- 1. Plasti-Fab, Inc.
- 2. Warminster Fiberglass Company
- 3. Or equal.

G. Inspection

- 1. Contractor must install all Work in complete accordance with the manufacturer's instructions and recommendations, and the approved Shop Drawings.
- 2. Contractor must not install damaged items until repairs are made in accordance with manufacturer's written instructions and approval by Engineer. Only minor repair work will be permitted in the field. All damaged items requiring remedial work must be returned to the manufacturer for repair or replacement.

BMP-35

H. Installation Of Weir Plates

- 1. Install all work in conformance with the approved Shop Drawings.
- 2. Install at locations and elevations shown, unless otherwise approved by the Engineer.
- 3. Set all weir plates level within $\pm 1/16$ -inch over the entire weir length unless noted otherwise on the contract documents.
- I. <u>No Separate Payment</u>

No separate payment will be made for this work of the specification. All cost must be included in the various Contract Items of this Contract.

7.117 <u>GRAFFITI RESISTANT COATING</u>

A. <u>Description of Work</u>

Under this Item, the Contractor must furnish and apply Graffiti Resistant Coating to exterior stone, concrete, wood or other surfaces in accordance with OSHA guidelines, manufacturer's recommendations and the plans, specifications and directions of the Engineer.

B. <u>General</u>

The Contractor must apply Graffiti Resistant Coatings as follows:

- 1. For <u>previously painted</u> masonry, concrete (vertical surfaces) and bethabara wood (both painted and unpainted), metal surfaces (both painted and unpainted), apply Graffiti Solution System (G.S.S.) manufactured by American Polymer Corporation, ARMAGLAZE, 9000 manufactured by Aquarius Coating, Inc., or approved equal
- 2. For <u>new and unpainted</u> masonry and concrete, the Contractor must apply Professional Water Sealant & Anti-Graffitiant, manufactured by Professional Products of Kansas, Inc., Blok-Guard & Graffiti Control Ultra manufactured by Prosoco, Inc., Dumond Anti Graffitiant, by Dumond Chemical, Inc., or approved equal.

C. <u>Quality Assurance</u>

Graffiti Resistant Coating must be applied <u>only</u> by an approved installer per installation instructions who must be trained by the manufacturer of each respective product and must be certified by the manufacturers as qualified to install materials specified for this project. Only qualified Contractors or Subcontractors and their trades persons, meeting the above requirements must be deemed approved. Submit a copy of current Society of Protective Coatings Certificate if applicable.

D. <u>Product Delivery, Storage and Handling</u>

- 1. The Contractor must deliver materials in sufficient quantity to allow for continuity of work. Protect all materials and equipment during transit, delivery, storage and handling to prevent damage and deterioration.
- 2. Avoid fire; open flame and sparks. Container contents, even when empty, may ignite explosively when exposed to heat, welding,

BMP-37

cutting torch, pilot lights and other flames and ignition sources at locations distant from the material storage and handling point.

- 3. Avoid inhalation, ingestion, skin contact, and eye contact.
- 4. Protect shrubs, plants and grass during application. Avoid wind drift which may injure passersby or damage vehicles and adjacent properties.
- 5. For additional cautions, human health data and protective equipment to be used (including respiratory) refer to Material Safety Data Sheets.
- 6. Containers must be kept closed when not in use.
- 7. Dispose of excess waste materials and empty containers in accordance with all local, state and federal regulations. Empty containers as may be classified as hazardous; they retain product residues such as vapor, liquid or solid. Do not transfer contents into other containers for storage.

E. <u>Products</u>

- 1. <u>"G.S.S" Coatings</u>. Note: This coating shall be applied to surfaces listed under "General" heading of this Specification (i.e. previously <u>painted</u> masonry, concrete and wood surfaces and metal surfaces both painted and unpainted).
 - a. G.S.S. Barrier Standard: Sealer product; standard undercoat
 <u>not</u> high solids version. This <u>Standard</u> version shall be used with <u>Clear</u> overcoat. Barrier shall be applied over painted porous surfaces (not metal)¹
 - b. G.S.S. Barrier High Solids: Shall be used with <u>Pigmented</u> top coat. The high solids version is <u>not</u> recommended for use with clear top coating. High solids barrier consists of a one component, acrylic copolymer coating (see Manufacturer's Product Guide for more information).
 - c. G.S.S. 10 Clear Coating (Low VOC): Anti-graffiti product; overcoat G.S.S. 10 consists of a polymer composition; two
 (2) component resin and catalyst system. It is a non-

¹For steel and aluminum surfaces, in lieu of G.S.S.-Barrier, use a water-borne urethane primer such as Bond-Plex, manufactured by Sherwin-Williams Company; or approved equal.

sacrificial permanent coating with <u>flat/matte finish</u>. G.S.S. 10 Part A is premeasured to use for Part B.

- d. G.S.S. Pigmented Coating: Anti-graffiti product; top coat. Two (2) component polyurethane, non-sacrificial, protective coating. Color shall be selected from either the manufacturer's standard color guide or Sherwin-William Industrial and Marine Coatings, System 4000 color chart or approved equal. Finish shall be <u>flat/matte</u> (not gloss) unless otherwise noted. (pigmented coating shall be used in lieu of clear coating when previously painted substrate is not uniform in color and requires concealing with an opaque top coat.)
- 2. <u>P.W.S. Coatings</u>: Note: This coating must be applied to surfaces listed under "General" heading above (i.e. <u>new and unpainted</u> masonry and unpainted concrete).

F. <u>Execution</u>

- 1. Surface Preparation
 - Surfaces must be thoroughly dry, clean and free of dust, a. surface dirt, oil, grease and other contaminants that might prevent penetration of the coatings. Newly constructed surfaces, repointed surfaces and concrete must be cured for at least 28 days before application. Glossy, glazed and slick troweled surfaces should be lightly etched or abraded before application of coatings. Surface defects, voids, joints or cracks must be properly sealed or filled, allowing any patching compounds to be completely cured before application. Cleaning may be accomplished by high pressure washing, sand blasting or chemical cleaning. When chemicals are used, they should be removed by high pressure water cleaning before application of the sealant. Use of raw acids must not be permitted. Allow cleaned surfaces to dry completely. A test must always be made prior to application using the same cleaning and application procedures as to be used on the project. This test area must remain available to be inspected by the Engineer.

G. <u>Application Procedures</u>

1. General product application must <u>not</u> be initiated during inclement weather, or when precipitation appears imminent. Application

should be completed at least four (4) hours before precipitation begins.

- 2. For the G.S.S. Type Coating Systems consisting of both undercoat and topcoat, <u>refer to manufacturer's Application Guide</u> along with information specified herein.
 - a. G.S.S. Barrier Undercoat sealer shall only be applied when temperature is between 50°F and 95°F. The surface to receive Barrier shall be visibly dry and relative humidity shall be such that condensation does not form on the surface during application.
 - b. Apply <u>two (2) coats</u> of <u>Standard</u> Barrier Undercoat (3 to 4 mils total) over all previously painted masonry and wood surfaces using either brush, roller or spray. Ensure that the coatings are applied evenly and built up sufficiently to create a protective layer over the underlying surface and to eliminate any future "shadowing" or "ghosting" which would appear after the graffiti removal if the surface is not adequately sealed and coated. Barrier shall be applied creating a pinhole-free surface. Allow 1 to 2 hours between coatings. Avoid over-application of Barrier coating to avoid pooling or pudding which can result in permanent whiting. Application of Barrier in direct sunlight can also result in permanent whiting.
 - G.S.S. 10 Overcoats shall be applied over G.S.S. Barrier c. undercoat. Prior to installation of overcoats, the barrier coats shall be allowed a minimum of 12 hours drying time. Moisture shall not be permitted on undercoating prior to application of G.S.S. 10 coating. G.S.S. 10 shall be activated by mixing parts A and B. These two portions have been premeasured at a precise ratio. The Contractor shall not mix at any other ratio and shall not add thinner or water. Part B shall be poured into Part A container. While mixing together, stir well with a lifting motion to ensure that the two parts are well balanced. If the coating must be thinned for application purposes, thin with MEK only and only after Parts A and B have been mixed together. The coating may be applied by brush, roller or spray. Apply two (2) coats of G.S.S. 10 of 1 to 2 mils thickness each coat. Allow one (1) to two (2) hours before applying the second coat. If using roller, direct the roller upwards from bottom toward top maintaining a wet wedge.

- d. Coverage rates will vary depending upon porosity of the surface and method of application. Once activated, the coating has a pot life of approximately 4 to 6 hours under normal conditions (80°F or less). The lid shall not be left off the container unnecessarily.
- H. For the Professional Water Sealant (P.W.S) Type Cleaning System, refer to Manufacturer's Application Guide along with information specified herein.
 - 1. P.W.S must be applied only when temperature is between 60°F and 80°F and relative humidity is 50%. Under these ideal weather conditions, the coating will dry to the touch in approximately twenty-five (25) minutes. At lower temperatures, drying time will be longer.
 - 2. The coating must be applied over all new and unpainted masonry, concrete and wood surfaces using a two (2) coat application process, with a drying time of not more than two and one-half (2-1/2) hours between applications.

Curing time will vary depending upon the temperature and humidity conditions. The second coat must require six (6) to eight (8) hours to develop full graffiti protection.

- 3. On vertical applications, P.W.S. must be applied with a low pressure airless sprayer at an angle to allow the sealant to run down the face rather than to penetrate deep into the voids of the substrate. On porous and rough stone surfaces, it must be necessary to apply a mist coat before flood coating.
- 4. On horizontal surfaces, such as wooden bench slats, P.W.S. must be applied by brooming, brushing, rolling or using airless spray equipment. The coating must not be permitted to puddle or pond. Over-application may cause surface to become slippery when wet. Excess sealant must be wiped up immediately.
- 5. For low pressure spray application, the setting must be about 40 psi to avoid atomization of the material. Spray equipment must be fitted with stainless steel or brass fittings and gaskets suitable for solvent solution. A fan spray tip of 50E with flow rate of approximately 4/10 of a gallon per minute is recommended. Coatings must be applied in a saturating spray application from the top down. Apply sufficient material to create a six (6) inch to eight (8) inch rundown below the contact point. Allow the first application to penetrate the masonry

surface until dry to the touch. If a second application is required, less material will be needed.

- 6. For brush application, brushes should be nylon or other synthetic material resistant to solvent solution. When applying Professional Water Sealant with a brush, apply sufficient material to thoroughly saturate the surface. Avoid excessive overlapping. Take care of brush out runs and drips, and to avoid buildup of Professional Water Sealant.
- 7. Container must be kept tightly sealed until ready to use. Stir thoroughly before use. Product must not be diluted or altered in any way. Coverage rates will vary depending upon surface porosity and texture. Once opened, Professional Water Sealant must be used within 24 hours.
- I. <u>Clean-Up Instructions</u>

Clean application equipment immediately after each use. All drips and over spray must be cleaned while still wet. For spraying equipment, cleaning with MEK every one (1) to two (2) hours is recommended. Since G.S.S 10 adheres permanently to surfaces, including human skin, spills shall be cleaned immediately. For P.W.S. products, clean equipment with mineral spirits or paint thinner.

J. <u>Cure Time Required Prior To Remover Use</u>

For G.S.S. products, full curing time required before graffiti can be removed from newly applied protective coating is seven (7) days at ambient temperatures. Curing period is longer during cooler temperatures. A test patch must be performed during cooler temperatures to determine whether the G.S.S. 10 top coat has cured sufficiently to remove graffiti with Erasol Remover product. Apply a small amount of Erasol Remover product on a clean spot of the coated surface and let it stand for 24 hours undisturbed. When the coating appears to have softened, it has not fully cured. When the coating remains hard, then Erasol may be used to remove graffiti.

- K. <u>Graffiti Removal</u>
 - 1. For graffiti removal procedures, see manufacturer's literature and instructions. Use of chemicals which are <u>not</u> included in manufacturer's list of components for remover system may <u>damage</u> or <u>remove</u> the protective coating, thereby necessitating the reapplication of sealant/coating systems.

BMP-42

2. Use of remover products which are <u>not</u> part of the complete system (i.e. not manufactured by the same companies as protective coatings) will <u>void</u> the 10 year manufacturer's warranties/ guarantees.

L. <u>Submittals</u>

- 1. The Contractor must submit manufacturer's technical data sheets, vapor transmission testing results and applicable OSHA regulations for storage, handling and application of both the Graffiti Resistant Coatings and Graffiti Remover products to the Engineer for approval.
- 2. The Contractor submit manufacturer's must product guarantee/warranty for a period of ten (10) years from the date of purchase, stating that the coatings will allow for the removal of all types of paint and other graffiti materials when same manufacturer's removal product has been used subject to listing of manufacturer's limitations which must be included with the submittal. Manufacturer and/or its Certified Applicator must remove the graffiti and recoat the surface at their own expense. The G.C. Contractor must provide, sealed in plastic, a statement of the warranty with the name, telephone number and address of the product's manufacturer so that the manufacturer can be contacted if the product fails. G.C. must forward one (1) copy of the warranty to NYCDDC at the time of final acceptance.
- 3. The Contractor must submit <u>written certification from the respective</u> <u>manufacturers of coatings</u>, certifying that installers have been properly trained and are currently approved by the manufacturers to install the specified graffiti resistant coatings. Provide copy of certification to the Engineer prior to start of Contract work.

M. <u>Measurement and Payment</u>

The quantity of graffiti resistant coating to be paid for under this Item must be the number of square feet of surfaces prepared, coated and cured in accordance with the Contract Drawings, Specifications and directions of the Engineer. The price bid must be a unit price per square foot as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.117. The bid price must include the cost of all labor, materials, equipment and incidental expenses necessary to complete the work of furnishing and installing graffiti resistant coatings including surface preparation, application and proper curing of coating and maintenance of surfaces coated throughout contract

duration, all in accordance with the plans, specifications and to the satisfaction of the Engineer.

No separate payment will be made for graffiti resistant coating furnished and installed on Concrete Structures. All costs must be included in the unit cost of the Concrete Structures item, specification section 7.129.

7.120 <u>TRASH RACK</u>

A. <u>Work Included</u>

1. <u>Description</u>. The Contractor shall furnish and install trash rack as shown on the Contract Drawings.

The work shall include all labor and materials necessary to furnish, paint, deliver, install and test the equipment.

2. <u>General Requirements.</u>

- a. <u>General Specifications.</u> Except as modified by the Detailed Specifications, the work performed under this section shall conform to the requirements of the latest NYCDEP Standard Sewer Specifications
- b. <u>As-Built Conditions</u> The Contractor shall perform an asbuilt survey to verify all pertinent dimensions prior to fabrication of the bar rack and the Contractor shall have full responsibility for the proper fit of the furnished bar rack sections at the location designated on the Contract Drawings.
- c. <u>Shop Drawing.</u> The Contractor shall submit to the Engineer for approval shop drawings and other material required to substantiate conformance with the requirements set forth on the Contract Drawings. Shop drawings shall include dimensional drawings including detailed sections of structural steel and equipment, complete identification and material specifications.

B. <u>No Separate Payment</u>

No separate payment shall be made for this work of the specification. All costs shall be included in the various Contract Items of this Contract.

7.122 <u>MANHOLE STEPS</u>

A. <u>Description of Work</u> - The Contractor shall furnish, fabricate and install manhole steps not specifically included in other sections of the Detailed Specifications and required for the completion of the work as shown on the Contract Drawings and specified herein.

B. <u>General Requirements</u>

- 1. <u>General Specifications</u> Except as modified by the Detailed Specifications, work performed under this section shall conform to the requirements of the latest NYCDEP Standard Sewer and Water Main Specifications
- 2. <u>Shop Drawings</u> The Contractor shall submit to the Engineer for approval, shop drawings and other material required to substantiate conformance with the requirements set forth on the Contract Drawings and these Specifications in accordance with Article 4 of General Conditions. Shop drawings shall include, but not be limited to, outline and dimensional drawings including detailed sections and materials specifications.
- C. <u>Manhole Steps</u>

Manhole steps shall be gray cast iron ASTM A-48-83 class 30B. Minimum weight of each step is 11 lbs. All manhole steps shall have diamond nonskid design treads. All manhole steps shall have the initials of manufacturer's name, the date of manufacturer and the initials of the plant of manufacture integrally cast on them at the time of manufacture.

D. <u>No Separate Payment</u>

No separate payment will be made for this work of the specification. All costs must be included in the various Contract Items of this Contract.

7.129 <u>CONCRETE STRUCTURES</u>

A. <u>Work Included</u>

The Contractor must investigate, install, test and place in satisfactory operation all Concrete Structures as shown on the Contract Drawings and specified herein. Concrete Structures include but are not limited to headwalls, retaining walls, perimeter walls, weir walls, hydraulic flow splitters, hydraulic riser boxes, culverts, sewers, chambers, catch basins, manholes, sand filters, pedestrian bridges and stone piers. The Concrete Structures must be as defined in Section 7.129.D below.

B. <u>General Requirements</u>

 <u>General Specifications</u> - The General Specification: 11 Concrete (Dated November 1991) and the NYCDEP Standard Sewer and Water Main Specifications are declared to be part of this specification, the same as it fully set forth elsewhere herein. Copies of this specification may be obtained from the Department. Concrete work must conform to all requirements of the General Specification: 11 Concrete (Dated November 1991) except as modified in the NYCDEP Standard Sewer and Water Main Specifications.

2. <u>Submittals</u>

The Contract must submit to the Engineer for approval shop drawings and other materials required to substantiate conformance to the requirements set forth on the Contract Drawings and the Specifications in accordance with NYCDEP Standard Sewer and Water Main Specifications. Submittals must also include the geotechnical report specified herein and all material required under the "Submittals" section of the chapters of General Specification 11, Concrete, and any additional submittals hereinafter specified.

C. <u>Measurement and Payment</u>

The quantity to be measured for payment under this Section must be the total number of Concrete Structures installed as directed by the Engineer.

The Contract price for each Concrete Structures must be as indicated on the Bid Schedule of Prices Item No. BMP-7.129-1 to BMP-7.129-5. The bid price must include all work and equipment necessary to complete this item in accordance with the plans and specifications and to the satisfaction of the Engineer. The Concrete Structures unit price must include but not be limited to concrete, reinforcement, excavation, backfilling, crushed stone,

geotextile, sheeting and bracing, stone facing, masonry accessories, hatches, manhole covers, grating, railings, weir plates, graffiti resistant coating, internal valves and piping. The unit price must also include removal of all existing structure and debris found at the proposed new structure location.

D. Concrete Structures Summary

Item

Description

BMP-7.129-1	Structure No. 1 – Zwicky Ave Headwall
BMP-7.129-2	Structure No. 2 – Lincoln Ave Headwall
BMP-7.129-3	Structure No. 3 – NC-6 Weir Chamber
BMP-7.129-4 BMP-7.129-5	Structure No. 3 – NC-6 well Chamber Structure No. 4 – Sanilac St Headwall Structure No. 5 – Junction Chamber

7.201 MORTARED STONE WALL - WORK INCLUDED

Under this item, the Contractor shall furnish all labor, materials and equipment for completing the construction of mortared stone wall as specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

The work must include items of work specified under the following sections:

Section Number	Title
7.202	Masonry Mortar
7.203	Masonry Accessories
7.204	PA Colonial Field Stone

7.202 <u>MASONRY MORTAR</u>

A. <u>Description of Work</u>

- 1. <u>Description</u>. Furnish all labor and material necessary for the preparation and placing of all mortar for masonry and stone work.
- 2. <u>General Requirements</u>.
 - a. <u>General Specifications</u>. Masonry mortar and grout materials must comply with the requirements of this Section, except where otherwise shown or specified. Where no description has been specified for any material required, Chapter 21 -Masonry of the City of New York Building Code, must apply. Concrete materials must conform to the requirements of General Specification 11 Concrete.
 - b. <u>Code</u>. The use of masonry cement mortar, as approved by the Board of Standards and Appeals, is optional. Masonry cement mortar must be a mix of one part cementitious material to two-and-three-fourths parts of sand by volume. It must be furnished in sacks containing one cubic foot each, and must be marked with the weight.
 - c. <u>Test</u>. Masonry mortar samples must be provided by the Contractor upon request from the Engineer. Samples will be subject to tests in conformance with ASTM C270.
 - d. <u>Job mock-up</u>. Sample panels will be constructed at the site. At that time, adjust mortar samples to achieve desired colors at the discretion of the Engineer.

B. <u>Materials</u>

- 1. <u>Cement</u>. Unless otherwise qualified, the term "portland cement" whenever used in connection with masonry work must conform to the requirements of General Specification 11 - Concrete. Masonry cement must fulfill the requirements of ASTM C91.
- 2. <u>White Portland Cement</u>. White portland cement must be approved domestic product containing no ingredient that will stain other materials with which the cement comes in contact. It must not contain more than 0.03% by weight of soluble alkali and must fulfill the requirements of ASTM C150.

- 3. <u>Lime Putty</u>. Lime putty must be made from hydrated lime except that quicklime may be used when adequate time and facilities are available for aging. Suitable precautions must be taken to protect the putty from exposure to the sun and to prevent excessive evaporation when stored.
 - a. Hydrated lime must be mixed with the amount of water called for in the printed directions of the manufacturer to form a putty and must be allowed to stand for at least 24 hours before using. The hydrated lime may be sifted into the water, or the putty may be screened or punched through a sieve, or treated in any other manner, so as to obtain a smooth lump-free putty. Hydrated lime must fulfill the requirements of ASTM C206.
 - b. Quicklime (pulverized) must be slaked in suitable large batches, with the amount of water called for in the printed directions of the manufacturer, to form a thick cream. Lime must be sifted into water. During cool or cold weather, precautions must be taken to maintain the heat and prevent premature cooling during the process of hydration. The slaked quicklime must be passed through a No. 10 sieve and stored for at least 72 hours before using. When the use of lump quicklime, slaked on the job, in lieu of pulverized quicklime is specifically approved for plastering, the cooling and aging period must be not less than 14 days. Quicklime must fulfill the requirements of ASTM C5.
 - c. Pressure hydrated lime must be used as recommended by the manufacturer and must conform to the requirements of ASTM C206.
- 4. <u>Fine Aggregate</u>. Sand must conform to all the physical and chemical requirements and fulfill all the test requirements of NYCDOT Standard Highway Specifications Section 2.21 for types as herein specified.

Fine aggregate for thin joints for units with cut or ground edges must be Class A Type 2A but with not less than 95% passing thru No. 16 sieve.

Fine aggregate for masonry work in general, glass block and plaster must be Class A Type 2A. For joints which are 1/2" wide or more, Type 2A must be used.

White sand must be pure silica sand or marble dust having a gradation approximately within the limits specified for thin joints.

Sand in setting bed mortar for tile must be as described for masonry work, except that not more than 5% must pass thru a No. 100 mesh sieve.

Fine aggregate for pointing mortar tile (ceramic and quarry) must be as specified for masonry work, except that 100% must pass thru a No. 30 mesh sieve with no more through than 5% passing through a No. 100 mesh sieve.

Before the start of work, sample of fine aggregate must be submitted to the Engineer for approval.

- 5. <u>Water</u>. Water used in connection with masonry work must be clean and free of injurious amounts of oil, acid, alkali, organic matter or other deleterious substances, or must be the water used in the City for drinking purposes.
- 6. <u>Waterproofing and Non-Shrink Admixtures</u>. An approved waterproofing plasticizer with pozzolanic properties containing pure stearic acid and equal to "Omicron" by Master Builders, or "Hydrocide" powder by Sonneborn Building Products Division of Contech, Inc., must be added to produce a non-shrinking waterproof mortar. Admixture will be mixed with mortar as per manufacturer's requirements or if manufacturer does not specify in a 15:1 volumetric ratio of mortar to admixture.
- 7. <u>Grout</u>. Grout must be mixed to a thick consistency. Neat grout must be composed of cement and water only. Non-staining cement must be used for non-staining grout.
- C. <u>Mixes</u>
 - 1. <u>General Specifications</u>. The mortar mixtures must conform to ASTM C270. The proportions of cement specified herein are the minimum.
 - 2. <u>Type M Mortar</u>. ASTM C270; composed by volume in proportions of 1/2 part portland cement, 1 part masonry cement and not more than 4 parts sand, measured in a damp, loose condition, with waterproofing added, with a minimum average compressive strength at 28 days of 2,500 psi. Use Type III mortar for all masonry work which is below grade.

BMP-52

- 3. <u>Mixing</u>. Mortar must be freshly mixed and the quantity of each batch must not be in excess of the amount that will be used before the same has started to set. Retempering will not be permitted. The ingredients for each batch must be accurately measured and combined in the proportions specified, all parts being measured by volume. Mortar must be mixed in a batch mixer or by hand and must be of uniform color and consistency. Mixer drums must be entirely emptied of a batch before charging for a succeeding batch is started. The mixing time must be not less than 5 minutes, approximately 2 minutes of which must be for mixing the dry materials and not less than 3 minutes for continuing the mixing after the water has been added.
- 4. <u>Coloring</u>. Mortar must be colored using cement during the mixture process. After mixing, mortar must be of uniform color.
- D. <u>Measurement and Payment</u>

No separate payment will be made for this work of the specification. All costs must be included in the various Contract Items of this Contract.

7.203 <u>MASONRY ACCESSORIES</u>

A. <u>Description of Work</u>

- 1. The Contractor must provide all labor, materials and equipment necessary to place all masonry accessories as specified and shown on the Contract Drawings.
- 2. <u>General Requirements</u>.
 - a. <u>Samples</u>. Submit three of each item to the Engineer.
 - b. <u>Job Mock-Up</u>. A sample panel will be constructed at the site. At that time furnish all anchors, ties and reinforcement necessary to construct the sample panel.
 - c. <u>Manufacturer</u>.
 - i. Acceptable manufacturers of anchors, ties and accessories: Hohmann and Barnard, Inc., Hickman Building Products, Inc., Heckmann Building Products, Inc., or approved equal.
 - ii. Acceptable manufacturers of joint reinforcement: Dur-O-Wall, Inc., AA Wire Products, Hohmann and Barnard, Inc., or approved equal.
- 3. <u>Product Delivery, Storage and Handling</u>. Materials must be stored under cover in a dry place and protected from the elements.

B. <u>Materials</u>

- 1. <u>Anchors and Ties for Exterior and Interior Work</u>. Non-corrosive, stainless steel.
 - a. <u>Corrugated or Crimped Ties</u>. 22 gauge, not less than 7/8-inch wide, not less than 5-inches long.
 - b. <u>Dovetail Type Masonry Anchors for Fastening Stone to Slot</u> <u>Inserts in Concrete</u>. Must be designed to fit the slots, not less than 16 gauge, 7/8-inch wide, turned up 1/4-inch at the end. Dovetail slots must be 20 gauge filled type, furnished under this Section and installed under General Specifications 11, Concrete.

C. <u>Installation</u>

- 1. Clean off foreign coatings that will destroy or reduce the bond immediately before placing reinforcing anchors and ties.
- 2. Provide all anchors, anchor slots, ties, masonry joint reinforcement and other anchorage devices necessary to anchor masonry work to the structure and to other masonry.
- 3. Coordinate placement of vertical slots 16-inch o.c. for anchorage of masonry furring and facings in front of concrete. Continuous slots must not be placed closer than 3 inches to the edges of concrete work.

D. <u>Measurement and Payment</u>

No separate payment will be made for the Masonry Accessories construction of Concrete Structures. All costs must be included in the unit cost of the Concrete Structures item, specification section 7.129.

7.204 <u>PENNSYLVANIA COLONIAL FIELD STONE</u>

A. <u>Description of Work</u>

The Contractor must furnish all labor, materials, equipment and services necessary to install stone facing as specified herein and as shown on the Contract Drawings.

B. <u>General Requirements</u>.

1. <u>Samples</u>. Furnish sufficient stone units including special shapes required, to show range of colors, texture, finishes and dimensions.

2. Job Mock-Ups.

- a. Construct two 4 ft.-0 in. x 6 ft.-0 in. sample panels of stone units, with at least one 90° corner, and coping. Show backup and reinforcement.
- b. The Contractor must construct the three types of sample panel as often as required by the Engineer to achieve approved samples. Do not proceed with construction until sample panels are accepted by the Engineer.
- c. Retain accepted samples as reference standard for project.
- d. Demolish and remove sample panels from the site after completion and acceptance of all masonry work.
- 3. Store all stone units above ground on level platforms which allow air circulation under stacked units; cover and protect against wetting prior to use.
- 4. Handle units on pallets of flatbed barrows and do not permit free discharge from conveyor units or transporting in mortar trays.
- 5. Do not place concrete masonry units, when air temperature is below 40° F (4° C) without specific instructions in writing from the Engineer.

C. <u>Stone Facing Work</u>

1. <u>Materials</u>

a. Stones: All stones must be quartzite sandstone, commonly known as Pennsylvania Colonial Field Stone or natural local stone as approved by the Engineer.

All stones must generally have a minimum length of one (1) foot six (6) inches and a minimum height of six (6) inches. All stones must generally have a maximum length of three (3) feet zero (0) inches and a maximum height of twelve (12) inches. Stone widths must generally be no more than twelve (12) inches, and must generally conform to the width of the stone ledge provided.

All stones must be free of soil and debris in order to achieve a secure bond with the mortar.

D. <u>Installation</u>

- 1. Lay stone with not less than 1" nor more than 2" of the specified mortar between stone and the back-up wall, and in accordance with the approved mock-up.
- 2. Joints must have a nominal thickness of 3/8-inch, and uniform.
 - a. Strike joints flush in surfaces not exposed to view.
 - b. Point joints tight in unparged masonry below ground, or water level.
 - c. Tool joints in exposed surface when thumb-print hard with round jointer.
- 3. Contractor must field verify condition of existing structures and surfaces as per ACI guidelines 201.1R prior to laying of stone.
- 4. <u>Laying</u>
 - a. Lay only dry units. Stones must be laid in cement mortar so as to form full bed, end and side joints at one operation. Stones must be laid with flat side down and best side facing outward. Those stones with best face on all sides must be used for the top course as wall cap.
 - b. Stones must be tightly wedged together and flash point mortared in place.

BMP-57

- c. Provide full mortar coverage on horizontal and vertical face shells. Provide full mortar coverage also on webs, in all starting courses, in piers, columns and pilasters, and adjacent to cells or cavities to be filled with grout.
- d. Shove vertical joints tight.
- e. All stones must be laid in a horizontal banding pattern, utilizing the one-over-two and two-over-one method. Set units plumb, true and line, and with level courses accurately spaced. Adjust units to final position while mortar is soft and plastic.
- f. Keep open spaces at control joints and expansion joints free of mortar by using a continuous wood or metal strip temporarily set in the wall.
- g. If units are displaced after mortar has stiffened, remove, clean joints and units of mortar, and relay with fresh mortar.
- h. When jointing fresh mortar to set or partially set stone construction clean exposed surface to set masonry and remove loose mortar prior to laying fresh masonry. If necessary to stop off a horizontal run of masonry, rake back one-half block length in each course. Do not use toothing to join new masonry to set or partially set masonry when continuing a horizontal run.

5. Anchors and Reinforcement

- a. Units at corners and at intersections must be bonded with masonry bond and preformed joint reinforcement spaced vertically 16-inch o.c.
- b. Where block passes concrete, anchor with one dovetail anchor for each 2 square feet of wall surface.

6. <u>Built-In Work</u>

- a. Avoid cutting and patching.
- b. Install bolts, anchors, nailing blocks, inserts, frames, vents, flashings, conduit and other built-in items as masonry work progresses. Solidly grout spaces around built-in items.

c. Coordinate the work of this Section with work of all other trades so that no requirements are overlooked.

7. <u>Protection of Work</u>

- a. Protect sills, ledges and off-sets from mortar drippings or other damage and remove misplaced mortar or grout immediately.
- b. Cover top of walls with non-staining waterproof coverings when work is not in progress. Provide minimum 2 ft. overhang of protective covering each side of wall and securely anchor.
- c. Protect face materials against staining.

8. <u>Pointing and Cleaning</u>

- a. At final completion of unit masonry work fill holes in joints and tool the same.
- b. Cut out and repoint defective joints.
- c. Dry brush masonry surface after mortar has set, at end of each day's work and after final pointing.
- d. Leave work and surrounding surfaces clean and free of mortar spots and droppings.
- e. Wash down all exposed brick with an approved masonrytype detergent, and then thoroughly rinse with clean water. Before applying any cleaning agent to the entire wall, apply it to a sample wall in a location approved by the Engineer. Cleaning must not proceed until the sample area has been approved by the Engineer after which the same materials and methods must be used on the entire work. Acid solutions or acid-type detergents must not be used.

E. <u>Measurement and Payment</u>

The quantity to be measured for payment under this Section must be the total number of cubic yards of PA Colonial Field Stones and mortar furnished and installed in accordance with the plans and specifications and directions of the Engineer. The contract price per cubic yards of approved PA Colonial Field Stones must be as indicated on the BID SCHEDULE OF

PRICES Item No. BMP 7.204. The bid prices must be a unit price per cubic yards of PA Colonial Field Stones furnished and installed.

No separate payment will be made for PA Colonial Field Stones furnished and installed as facing on Concrete Structures identified in 7.129. All costs must be included in the unit cost of the Concrete Structures item, specification section 7.129.

7.300 <u>EARTHWORK AND GRADING - WORK INCLUDED</u>

Under earthwork and grading, the Contractor must provide all labor, material, tools and equipment necessary to complete the execution of the work in complete accordance with the Specifications and all Contract Drawings. The work must include items of work specified under the following sections.

Section Number	Title
7.301 7.302 7.303 7.304 7.305 7.306 7.307-A 7.308 7.312	Debris Removal and Disposal Clearing, Grubbing and Removals Temporary Wooden Tree Guards Excavation Crushed Stone Tree Removal and Disposal Grading Fill On-Site Demolition and Site Clearing
7.317	Soil Sampling and Disposal

7.301 DEBRIS REMOVAL AND DISPOSAL

A. <u>Description of Work</u>

Under this item, the Contractor shall remove all debris and objectionable material on the lot of construction, to be performed without mechanized equipment outside the construction limit fence, as directed by the Engineer. Debris such as household, yard wastes and construction fill, fencing, abandoned structures, stones, wood as well as construction debris and any other objectionable debris shall be removed from the specific areas within the limits of the Contract, in accordance with the plans and specifications as directed by the Engineer. Removal of fallen trees which are resting on the ground shall be included in this item. The removal and disposal off-site of the following items shall be included in this Item: abandoned vehicles, large appliances, tires, auto engines, other auto debris, scrap pieces of metal, plastic, wood, asphalt and concrete rubble, other dumped fill, household waste and yard waste. This work is to be done before installation of guide rail and/or landscaping activities and other pertinent work of this Contract.

Stones deemed suitable for reuse shall be stockpiled on-site at a location determined by the Engineer or DEP Representative. Stones deemed not useful for contract purposes shall be removed by the Contractor from the site.

The Contractor shall carefully protect all trees, shrubs and other growth to remain, and shall be liable for any and all damages to property caused by Debris Removal operations. All trees, plants, and constructed features damaged during Debris Removal shall be replaced or restored to their original condition to the satisfaction of the Engineer.

All removals within the construction limit fence shall be covered under 7.302 Clearing, Grubbing and Removals (top 6") and 7.304 Excavation (below the top 6").

B. <u>Construction Methods and General Removal Protocol</u>

All removal of debris from wooded areas, marshes, ponds and stream beds shall be performed by hand, except those areas that can be reached by machines located on paved roads or hard-packed open surfaces. Debris shall be removed to the nearest street edge for removal by the Contractor.

In sensitive natural areas, the removal of debris may cause more damage to the landscape than the benefits derived from the clean-up. Therefore, for debris that is inaccessible from a hard surface, the Contractor shall consult with the Engineer to decide if it shall be removed. Engineer will inform the

BMP-62

Contractor of any debris items not to be removed due to inaccessibility and anticipated damage to soils and vegetation.

Every effort to protect overhanging branches from damage by machines shall be taken. No plant material shall be removed expect as ordered by the Engineer.

- 1. Where accessible from paved road or existing packed dirt road, use front-end loader and/or backhoe to remove items to nearest street. Heavy machinery must remain on paved/hardened surfaces.
- 2. With the consent of Engineer, remove debris from wooded, field, or marsh areas by hand. Use existing trails where possible. For marsh areas, choose an entry point that minimizes the impact on vegetation. Blow torches, hand tools, and wheel barrows can be used to disassemble and remove large items. In order to minimize leakage from vehicles, separately remove and dispose of fluid-containing car parts.
- 3. With the consent of Engineer, remove items in open water by hand, unless of large enough size to warrant the use of a winch. In both cases, choose an entry point that will have the least impact on the shoreline, considering both the edge vegetation and bank stability. If using a winch, attach chains to the object and pull to shore. The vehicle housing the winch must remain on a paved or hardened surface. Once on shore, remove the debris according to the land conditions (i.e. by hand or with heavy equipment).

C. <u>Measurement and Payment</u>

The quantity to be measured for payment shall be as described herein. The quantity shall be for debris removal within the specified Work Areas.

Measurement shall be made in containers and/or vehicles, and the quantity to be paid for will be eight-tenths (8/10) of the yardage determined by such measurements.

The price bid shall be unit price per cubic yard for debris removal and disposal as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.301. The bid price shall constitute full compensation for all materials, labor, equipment, and work incidental thereto, necessary to complete this item in accordance with the plans and specifications to the satisfaction of the Engineer.

7.302 <u>CLEARING, GRUBBING AND REMOVALS</u>

A. <u>Description of Work</u>

Clearing, grubbing, and removals within the construction limit fence must conform to the requirements of the NYCDOT Standard Highway Specifications Section 6.01.

B. Measurement and Payment

The quantity to be measured for payment under this section shall be the total number of square feet successfully cleared and grubbed and all objectionable material removed in accordance with the plans and specifications and directions of the Engineer. The quantity shall be for clearing, grubbing and removal of all objectionable material within the project work limits.

For supplying all labor, materials and equipment necessary for clearing, grubbing and removals, the Contractor shall receive a unit price bid.

The Contract price per square foot for Clearing, Grubbing and Removals shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.302. The bid price shall constitute full compensation for all labor, materials, equipment and work incidental thereto, necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

7.303 <u>TEMPORARY WOODEN TREE GUARDS</u>

A. <u>Description of Work</u>

Under this Section, before the commencement of any contract site work, the Contractor shall furnish and erect temporary wooden tree guards around existing trees to be safeguarded from construction activities in accordance with the plans, specifications and directions of the Engineer. For Temporary Wooden Tree Guard detail, refer to Contract Drawings. In order to avoid surface and subsurface root damage and soil compaction, the Contractor shall not be permitted to stockpile materials of any nature within the drip lines of trees to remain. Tree protection shall include securely tying up branches to prevent mechanical injury if deemed necessary by the Engineer. All equipment used on site shall be appropriate to the scale of the project. "Appropriate-sized" equipment shall be described as only equipment which can operate effectively on site without causing damage to existing vegetation.

B. <u>Materials</u>

Lumber to be used for temporary wooden tree guards shall be unpainted Yellow Pine, Douglas Fir or Spruce. All nails shall be hot-dipped galvanized steel.

C. <u>Method</u>

Unless otherwise directed, the Contractor shall install the temporary tree guards as shown on the drawings without causing damage to the existing trees to be protected. If any temporary wooden tree guards are destroyed or sustain damage during the course of the work, they shall be immediately repaired, or replaced by a new temporary wooden tree guard at no additional expense to the City.

Temporary wooden tree guards shall remain in place until all work which might cause damage or defacement to protected trees has been completed. Upon the completion of work to the satisfaction of the Engineer, the Contractor shall remove and dispose of all temporary tree guards from existing trees. All work shall be done in a careful, neat, and workmanlike manner.

If any trees are removed from a work site in violation of the plans and specifications (specifically the tree removal authorization issued by the City Planning Commission under the Special South Richmond Development District regulations of the Zoning Resolution of the City of New York), the

Contractor shall be held responsible. Such trees shall be replaced without any extra expense to the City.

D. <u>No Separate Payment</u>

The cost for all labor, materials and equipment required for the temporary wooden guards shall be deemed included in the price bid under DETAILED SPECIFICATIONS 7.302 FOR CLEARING, GRUBBING AND REMOVALS. No separate payment shall be made for temporary wooden tree guards.

7.304 <u>EXCAVATION</u>

Excavation must conform to the requirements of the NYCDOT Standard Highway Specifications Section 6.02. Contractor must submit excavation plan to show excavation is in conformance with the requirements specified in Section 6.02 and Contract Drawings for the approval of the Engineer.

The quantity to be measured for payment under the pay item Excavation shall be the total number of cubic yards, measured in containers and vehicles, and the quantity to be paid for will be 75% of the yardage determined by such measurements.

The contract price per cubic yard of material excavated and disposed of offsite shall be indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.304-A. No payments will be made under items 6.02 AAD or 6.02 AAN. The bid price shall constitute full compensation for all labor, materials, equipment and work incidental thereto, necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

7.305 <u>CRUSHED STONE</u>

Crushed stone must conform to the requirements of Section 26.02 of the NYCDEP Standard Sewer and Water Main Specifications. Contractor must submit Shop Drawings for crushed stone material in accordance with the materials specified in Section 26.02 and Contract Drawings for the approval of the Engineer.

No separate payment will be made for this work of the specification. All costs must be included in the various Contract Items of this Contract.

7.306 TREE REMOVAL AND DISPOSAL

Tree removal and disposal must conform to the requirements of the NYCDOT Standard Highway Specifications Section 4.16, except as modified below.

The quantity of tree removal to be paid for under this section shall be the number of trees of each size group, removed and disposed of in accordance with the plans and specifications and directions of the Engineer, for all trees greater than 6" in diameter. Removal of trees less than 6" in diameter shall be included in 7.302 Clearing and Grubbing.

A tree having a single root system and more than one trunk at a height calipered at four and one-half feet above existing grade shall be considered a multiple trunk tree. The caliper of a multiple-trunk tree, to be measured for payment, shall be the square root of the summation of the squares of the calipers of the several trunks, except that trunks of less than three (3") inch caliper will not be considered or included.

The Contract price per unit for tree removal shall be as indicated on the BID SCHEDULE OF PRICES Item Nos. BMP-7.306-A through BMP-7.306-D. The prices bid shall be unit prices per tree of each size group and shall include the cost of all labor, materials and equipment necessary for removing and disposing of trees, and all other incidentals necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer. This payment for tree removal shall include the costs for all stump removal and disposal. No payment shall be made under this section for removing stumps that existed on the site prior to tree removal operations. The removal of stumps that are on the site before any trees are removed shall be deemed included in the price bid under DETAILED SPECIFICATIONS FOR CLEARING, GRUBBING AND REMOVALS.

SUMMARY FOR TREE REMOVAL AND DISPOSAL ITEMS

Item	Description
BMP-7.306-A	Tree Removal 6" to 12" Caliper
ВМР-7.306-В	Tree Removal Above 12" to 18" Caliper
ВМР-7.306-С	Tree Removal Above 18" to 24" Caliper
BMP-7.306-D	Tree Removal Above 24"

7.307-A <u>GRADING</u>

A. <u>Description of Work</u>

The Contractor shall furnish all labor, materials, equipment and services necessary to perform all grading as indicated on the Contract Drawings and as specified herein.

B. <u>General Requirements</u>

- 1. <u>General Specifications</u> Except as modified and supplemented hereinafter in the Detailed Specifications, work performed under this Section shall conform to the NYCDEP Standard Sewer Specifications.
- 2. <u>Shop Drawings</u> The Contractor shall submit to the Engineer for approval shop drawings and other documentation required to show conformance with the requirements set forth on the Contract Drawings and these Specifications. Shop drawings shall include, but not be limited to, the requirements for shop drawings as specified in Standard Sewer Specifications.
- C. <u>Grading</u> The Contractor shall perform filling, compacting, and grading of the indicated areas of site, including minor cutting and filling high and low areas, and leveling such areas to elevations and within limits shown on the Contract Drawings. All work shall be performed in accordance with the applicable requirements of the NYCDEP Standard Sewer Specifications.

D. <u>Compaction</u>

- 1. BMP Areas Compaction shall not be done in BMP and landscaped areas.
- 2. <u>Other Areas</u> Each layer of fill or backfill shall be compacted by a minimum of four complete passes with an approved tamping roller, pneumatic-tired roller, three-wheel power roller, or other approved compaction requirement. Compaction shall not be less than 95 percent of the maximum density modified proctor as determined by ASTM D1557, Method D.
- 3. <u>Field Control</u> Sufficient in place density tests shall be performed by the Contractor in order to satisfy the Engineer that the specified density is being obtained. These tests shall be made at no cost to the City and shall be made using the calibrated sand cone method (ASTM D1556) or other method as determined by the Engineer.

- E. <u>Finished Excavation, Fills, and Embankments</u> All areas covered by the project, including excavated and filled sections and adjacent transition areas, shall be uniformly graded. The finished surface shall be reasonably smooth, compacted, and free from irregular surface changes. The degree of finish shall be that ordinarily obtainable from blade-grader operations. All wetland surfaces shall be finished not more than 0.10 foot above or below the final grade shown on the Contract Drawings. Surfaces upland from wetland areas shall be not more than six inches above or below the final grade shown on the Contract Drawings.
- F. <u>Protection</u> Newly graded areas shall be protected from traffic and erosion, and any settlement or washing away that may occur from any cause, prior to acceptance, shall be repaired and grades re-established to the required elevations and slopes, at no additional expense to the City.

The Contractor shall provide temporary ground cover sufficient to restrain erosion on all disturbed areas upon which further active construction is not taking place.

G. <u>Measurement and Payment</u>

The quantity to be measured for payment under the pay item Grading shall be the total number of square feet of work area graded. The contract price per square foot for grading shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.307-A. The bid price shall constitute full compensation for labor, materials, equipment and work incidental thereto, necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

7.308 <u>FILL ON-SITE</u>

A. <u>Description of Work</u>

This work shall consist of providing and placing approved fill material where required throughout the project area only. The Contractor may use approved fill material excavated from sewer and foundation trenches and stockpiled excavated soils within BMP project limits as long as it meets the approved definition. Reuse of onsite excavated material requires that the material be screened prior to placement as fill. The approved fill material shall be provided, placed, spread, compacted and fine graded to the elevations, lines, grades and cross-sections indicated on the drawings as directed by the Engineer.

B. <u>Definition</u>

Approved fill is hereby defined as clean earth, consisting of a mixture of silt and clay. Fill material shall have a liquid limit less than or equal to 40 and a plasticity index less than or equal to 20, as determined by ASTM D4318. This mixture must be free of any roots, trees, tree stumps, leaves or other organic matter. Furthermore, this material must also be free of any metal, bricks, debris, masonry (i.e. construction debris), stones over one and onehalf (1-1/2) inches in diameter and deleterious material. In addition, the fill shall have a gradation such that 100% (by weight) passes a 3" sieve, 50-100% passes a #10 sieve, 20-90% passes a #60 sieve, and 0-20% passes a #200 sieve.

Fill used in planted areas shall be clean earth, consisting of a mixture of silt, clay, and sand. No custom ("select fill") fill shall be used in area which are to be planted.

C. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of cubic yards of approved fill, measured in containers or vehicles, provided and placed as indicated on the Contract Drawings and as directed by the Engineer.

The contract price per cubic yard of approved fill material placed shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.308. The bid price shall constitute full compensation for all labor, materials, equipment and work incidental thereto, necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

No separate payment shall be made for fill used to backfill structures. All costs shall be included in the unit cost of the Concrete Structures item, specification section 7.129.

7.312 <u>DEMOLITION AND SITE CLEARING</u>

A. <u>Description of Work</u> - The Contractor shall demolish, remove, and dispose of all existing structures, to the extent indicated and as specified herein.

Items to be demolished and cleared include, but are not limited to, the following:

- 1. The guide rail located near Midland Avenue on Block 3696, Lot 1 in Midland Beach, Staten Island, NY 10306. The guiderail is on top of a 10'-0"Wx5'-0"H culvert, which crosses Midland Avenue between Boundary Avenue and Mason Avenue, near the location of the proposed weir structure at BMP NC-6. Refer to Contract Drawings. Additional demolition of existing culvert at interface of proposed weir structure may be necessary for construction of weir structure, as approved by the Engineer.
- 2. The section of guide rail located near Laconia Avenue on Block 3680 in Midland Beach, Staten Island, NY 10306. The guiderail is in the sidewalk on Laconia Avenue between Filbert Avenue and Rowan Avenue, near the location of the proposed outfall at BMP NC-15. Refer to Contract Drawings.
- 3. A section of the existing 5'-0"Wx3'-6"H culvert, in order to connect this culvert to the proposed junction chamber at BMP NC-6. The culvert is located under the sidewalk on the north side of Lincoln Avenue near Sanilac Street. Refer to Contract Drawings.

B. <u>General Requirements</u>

- 1. <u>Shop Drawings</u> The Contractor shall submit to the Engineer for approval shop drawings and other material required to substantiate conformance to the requirements set forth in these Specifications. Shop drawings shall include, but not be limited to, the extent and schedule of demolition, demolition procedure, safety precautions as specified. Approval of shop drawings by the Engineer is required before demolition may be started. The Contractor shall verify the existing conditions of the structures and site prior to submitting the Shop Drawings.
- 2. <u>Permits to be Obtained</u> Before proceeding with the demolition and clearing work, the Contractor shall obtain all necessary permits required by the City Departments and other agencies having jurisdiction.

C. <u>Demolition Procedures</u>

General

- 1. The limits of demolition are removal of all the structures mentioned under the Description of Work.
 - a. In performance of this work, the Contractor shall provide protection of adjacent existing structures and existing vegetation. Any trees or shrubs damaged or removed by the Contractor during demolition activities shall be replaced by the Contractor at no additional expense to the City.
- 2. The resulting demolition area shall be restored as directed by the Engineer. All associated debris materials shall be removed from site and disposed of by Contractor.
- 3. <u>Disposal</u> All materials resulting from the demolition work will become the property of the Contractor. The materials shall be removed from site to Contractor's own place of disposal at Contractor's expense in conformance with existing applicable laws and regulations.

D. <u>Measurement and Payment</u>

The quantity to be measured for payment for demolition under this Section shall be the total number of cubic yards of material removed and disposed as directed by the Engineer.

The contract price per cubic yard of demolition material removed shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.312-C. for non-hazardous material. The bid price shall constitute full compensation for all labor, materials, equipment and work incidental thereto, necessary to complete this item in accordance with the plans and specifications to the satisfaction of the Engineer. No separate payment shall be made for any work by the Contractor concerning disconnecting and removing of the utility lines. The cost of all planting (topsoil, trees, shrubs, wildflower seed mix) shall be paid from those existing items.

7.317 SOIL SAMPLING AND DISPOSAL

Soil sampling and disposal within the project limits must conform to the requirements of the NYCDDC Specifications for Handling, Transportation and Disposal of Nonhazardous and Potentially Hazardous Contaminated Materials. This applies to all areas of excavation and is not limited to areas below pavement. All excavation outside the public right of way shall be compared to ecological resources Soil Cleanup Objectives (SCOs).

Measurement and payment for soil sampling and disposal of hazardous and contaminated materials must be in accordance with Hazardous Materials Items 8.01 C1 Handling, Transportation & Disposal of Non-Hazardous Contaminated Soil, 8.01 C2 Sampling & Testing of Contaminated/Potentially Hazardous Soil for Disposal Parameters, 8.01 H Handling, Transportation & Disposal of Hazardous Soils, 8.01 S Health & Safety, 8.01 W1 Removal, Treatment & Disposal/Discharge of Water, and 8.01 W2 Treatment and Disposal/Discharge of Contaminated Water Sampling and Testing of Contaminated Water.

7.400 <u>LANDSCAPING AND RESTORATION - WORK INCLUDED</u>

Under landscaping and restoration work, the Contractor must provide labor, materials, tools and equipment necessary to complete the execution of the work in complete accordance with the Specifications and all Contract Drawings. The work must include items of work specified under the following sections.

Section Number	Title			
7.401	Landscaping for Terrestrial Zone and Wetland Zone			
7.401-I	Seeding			
7.403	Top Soil for Restored Area			
7.404-A	Restoration Specialist (Construction			
	Monitor)			
7.405	Vector, Pest and Wildlife Control			
7.407-A	Erosion Control Mat - Straw			
7.408-B	Herbicide Application			
7.411	Watering and Weeding During the Guarantee			
	Period			
7.413	Temporary Goose Exclusion Fence			
7.414	BMP As-Built Plans			
7.415	Vine and Invasive Plant Removal			
7.419	Tree and Root Pruning			

7.401 LANDSCAPING FOR TERRESTRIAL ZONE AND WETLAND ZONE

A. <u>Description of Work</u>

Under this item, the Contractor must furnish all labor, materials, equipment and services necessary for the proper execution of all landscaping work, as specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

B. <u>Related Sections.</u>

1.	Section 7.401-I	Seeding
2.	Section 7.404-A	Restoration Specialist
3.	Section 7.407-A	Erosion Control Mat – Straw
4.	Section 7.411	Watering and Weeding During the Guarantee Period

C. <u>Reference Standards</u>

- 1. American Association of Nurserymen, Inc., (American National Standards Institute) Nursery Stock (Z60.1)
- 2. American Joint Committee on Horticultural Nomenclature Standardized Plant Names.
- 3. A Checklist of New York State Plants, Contributions to a Flora of New York State, Checklist III, Bulletin #458, Richard S. Mitchell, State Botanist, New York State Museum, 1986.
- 4. Gleason, The Late Henry A. and Arthur Cronquist. 1991. Manual of the Vascular Plants of Northeastern United States and Adjacent Canada, 2nd ed, New York Botanical Garden.
- 5. Mitchell, Richard S. and Gordon C. Tucker. 1997. A Revised Checklist of New York State Plants, Bull. #490, New York State Museum.

D. <u>Quality Assurance</u>

1. Source Quality Control:

If private nursery sources are used, they must be within a 250-mile radius of the planting site. All specified plants must have also been grown in the same USDA climatic zone as that of the planting site.

All seed and original stock material for herbaceous plants must have been collected from locally adapted ecotypes within a 250-mile radius of the project site. Plant material may have to be contract grown in order to meet this requirement. Nurseries which collect plants from the wild will be rejected. Seed and stock material sources must be submitted to the Engineer to approval prior to approval.

No substitutions of specified plants will be accepted without prior approval of the Engineer.

2. General:

Landscape material must be shipped with certificates of inspection when required by governmental authorities. Comply with governing regulations applicable to landscape material. On landscape material arrival, the certificates must be filed with the Engineer. The Engineer must receive a copy of each shipping invoice immediately after the delivery has arrived at the job site.

E. <u>General Requirements</u>

- 1. All plants must be as specified as in the Contract Drawings. No substitutions will be permitted, except as authorized in writing by Engineer. If specified landscape material is not obtainable, submit proof of non-availability to Engineer, together with proposal for use of equivalent material appropriate for the project site.
- 2. The Contractor must comply with governing regulations applicable to wetland and landscape materials.
- 3. The Contractor must provide trees and plants of quantity, size, genus, species and cultivar/variety shown and scheduled in the Contract Drawings for landscape work and complying with recommendations and requirements of ANSI Z60.1 "American Standard for Nursery Stock" and the Manual of Vascular Plants of the Northeastern United States and Adjacent Canada.
- 4. The Contractor must provide healthy, vigorous stock, grown in a recognized nursery in accordance with good horticultural practice and free of disease, insects, eggs, larvae and defects such as knots, sun-scald, injuries abrasions, or disfigurement. Contractor must submit certification that wetland plants are procured at least six months prior to scheduled planting.
- 5. All plants furnished under this Item must be true to name. Plant names must agree with the nomenclature of Standardized Plant

Names as adopted by the American Joint Committee on Horticultural Nomenclature, 1942 Edition. Size and grading must conform to those of the American Association of Nurserymen. All wetland plants must come from within a 250-mile radius of the project site.

- 6. Utilities. The Contractor must determine location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Maintain grade stakes set by others until removal is approved by the Engineer.
- 7. Excavation. When conditions detrimental to plant growth are encountered, such as rubble fill, adverse draining conditions, or obstructions, notify the Engineer.
- 8. All existing landscape features including trees, shrubs, perennial, meadows, lawns, wetlands, paving, walls, stairs, etc. must be protected by the Contractor, using methods approved by the Engineer prior to start of work.
- 9. Preservation and Restoration of Existing Trees and Shrubs.
 - a. In order to avoid surface and subsurface root damage and soil compaction, the Contractor must not be permitted to stockpile materials of any nature under the drip line of existing trees and shrubs. This directive must apply to all areas within or outside the Contract limit line.
 - b. The Contractor must assume the responsibility for any remedial work such as root and top pruning required and/or necessary to prevent loss of plant material when this article is violated or when trees or shrubs are injured by construction equipment at Contractor's own expense.
 - c. Compensatory pruning and fertilizing of existing trees and shrubs must be performed to compensate for damage of roots incurred at Contractor's own expense. Fertilize in areas around undamaged roots only and not adjacent to the trunk or main stem. Fertilizer must be applied in the fall unless otherwise approved by Engineer. Tree pruning must be performed in accordance with Section 7.419 Tree and Root Pruning.
 - d. No existing plants may be removed, except as specifically required by this Contract or as specified on Contract Documents, or as specifically approved in writing by the

Engineer. Any areas or items of existing landscape which are removed or damaged must be replaced by the Contractor at the Contractor's own expense. The Contractor must match the existing condition prior to damage or as directed by the Engineer.

F. Inspection:

- 1. Prior to acceptance of material, the Engineer must inspect trees and shrubs at place of growth before planting, for compliance with requirements for genus, species, variety, size and quality. Contractor must be responsible for all inspection costs beyond a 50-mile radius from the Project Site.
- 2. Plant materials must be inspected by the Engineer upon arrival at the job site and prior to planting. Any materials not in compliance with specifications will not be accepted and must be removed from the job site immediately.
- 3. The Engineer retains the right to further inspect trees 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. The Contractor must remove rejected trees immediately from project site.

G. <u>Submittals</u>

The General Contractor must submit the following information for approval within ten (10) working days following the date in the Notice to Commence Work to the Engineer.

- 1. Subcontractors. Subcontractors proposed for landscaping and associated restoration and Site Work must be approved by the Engineer prior to start of Work. The Contractor shall submit at least three (3) alternative Subcontractors to the Engineer for review and approval. The Subcontractors proposed shall be evaluated on the following criteria, prioritized in descending order:
 - a. The wetland/landscape contractor shall have performed at least three (3) contracts that involved the restoration and/or creation of freshwater and tidal wetland systems. Additionally, the wetland/landscape contractor shall have performed at least three (3) contracts that involved the installation and maintenance of soil erosion and sediment control devices during construction of the project. The

BMP-81

projects shall be at least three (3) years old and successful. A digital submission of photographs via CD will be acceptable. The contractor shall demonstrate the capacity to accomplish the Work in the required time including qualification of key personnel, experience in digging and transplanting field stock, experience with State or Federal Agencies, particularly with experience in conducting mitigation pursuant to USACE or NYSDEC requirements (experience with agencies such as DOT, State or National Parks, etc. would be also acceptable), and other references or experience deemed appropriate to obtaining approval.

- b. Demonstrated capacity to accomplish the Work in the required time including qualification of experienced foreman and key personnel.
- c. Experience in digging and transplanting field stock.
- d. Experience with agencies, such as the Department of Parks and Recreation, Central Park Conservancy, and the Botanic Gardens.
- e. Experience with State or Federal Agencies, particularly with experience in conducting mitigation pursuant to USACE or NYSDEC requirements.
- f. Wetland/landscape contractor shall have performed at least three (3) contracts that involved the installation and maintenance of soil erosion and sediment control devices during construction of the project. The projects shall be at least three (3) years old and successful.
- g. Other references or experience deemed appropriate to obtaining approval.
- 2. List of growers/nurseries removal.
- 3. ISA Certified Arborist or nurseryman experienced in tree pruning, tree protection during construction, and tree removal.
- 4. List of all materials and certificates specified within this Item.
- 5. The General Contractor must submit the following information thirty (30) days prior to all landscaping activity unless indicated earlier for a specific item. The earliest date will take precedent.
 - a. Certificates

- i. All necessary State, Federal and other inspection certificates as may be required by law.
- ii. Two (2) copies to the Engineer of manufacturers' or vendors' certified analysis for soil treatments and fertilizer materials shall be submitted with samples.
- iii. Certification and guarantee that all plant material is true to name and in conformance with these specifications.
- iv. The invoice or a written statement showing the size and grade of materials received or shipped, together with the source and health of the plant material. No plants shall be accepted that have been collected from property other than that owned or leased by a nursery.
- v. Certification that all herbaceous plant material was grown from seed or stock collected from locally adapted ecotypes within a 250-mile radius of the Project Site.
- b. <u>Planting Schedule</u>: Submit proposed planting schedule within one month of official Notice to Commence Work, indicating dates for each type of Landscape Work as specified in the Contract Drawings. Included must be a schedule of nursery visits for Engineer to tag plant material. Correlate from date of substantial completion. Once accepted, revise dates only as approved in writing by the Engineer, after documentation of reasons for delays.
- c. List of equipment, methods of operation, and methods for protection of existing vegetation.
- d. Manufacturer's Literature. Manufacturer's literature for all materials furnished shall be submitted with samples of same.
- e. Watering, Weeding, and Maintenance Plan: Watering, weeding, and maintenance of seeding must be in accordance with Section 7.411 Watering and Weeding During the Guarantee Period.
- f. The approved plan and schedule do not relieve the Contractor in any way from any aspect of the replacement of dead plant material. The Contractor may alter the maintenance schedule based on weather and field conditions but must notify the Engineer a minimum of 24-hours in advance.

H. <u>Product Delivery, Storage and Handling</u>

- 1. Plants must be packed, transported, and handled with utmost care to insure adequate protection against injury. When transported in closed vehicles, plants must receive adequate ventilation to prevent sweating. When transported in open vehicles, plants must be protected by tarpaulins or other suitable cover material. All bare root plants must be adequately protected from drying out and immediately after inspection must be heeled in moist soil. Balled and burlapped plants must be set on the ground and the ball covered with soil. Until planted, all material must be properly maintained and kept adequately moist, to the satisfaction of the Engineer.
- 2. Packaged Materials. Deliver packaged materials in unopened bags or containers, each bearing the name, warranty, and trademark of the producer and the composition, analysis and the weight of the material. Contractor must notify the Engineer forty-eight (48) hours in advance of delivery of all plant material.
- 3. Trees and Plants. The Contractor must provide trees and plants of the stock type and quantities shown on the Contract Drawings. Do not prune prior to delivery unless otherwise approved by the Engineer. Do not bend or bind-tie trees or plants in such a manner as to damage bark, break branches or destroy natural shape. Provide protective covering during delivery, and insure that all balled and burlapped stock, container stock, tube stock, and/or bare root material is handled properly and is not dropped.
- 4. All plant materials must be protected from drying out and from wind damage during delivery.
- 5. The Contractor must deliver trees and plants after preparations for planting have been completed and plant immediately. If planting is delayed more than six (6) hours after delivery, set trees and plants in shade, protect from wind, weather and mechanical damage, and keep roots moist by covering with mulch, burlap or other acceptable means of retaining moisture. Water as necessary. Bare root material must be adequately protected from drying out and immediately heeled in after inspection. The bundles of heeled-in plants must be set upright on the ground, covered with mulch, and kept adequately moist until the time of installation. Until the time of planting, all plant material must be stored in an approved location, securely fenced and maintained, to the satisfaction of the Engineer, at the Contractor's own expense. All plants not planted immediately must be watered as necessary to maintain optimal health until planting.

- 6. The Contractor must not remove container grown stock from container until planting time.
- 7. Material should be planted in the ground immediately after delivery to site. Plants should be covered with damp-not wet-leaf compost while awaiting ground installation. Do not allow the plants to dry out or freeze.
- 8. Fertilizer delivered to the job site must be in original, unopened containers bearing the manufacturer's chemical analysis and essential information. Fertilizer containers must be protected from exposure to precipitation and direct sunlight.
- 9. Plant Material: Provide healthy, vigorous growing specimens exhibiting uniform growth and form characteristic of their species that satisfy the project specifications. Plants must be free of chlorosis, yellowing, blemished or damaged parts.
- 10. Label all flats of plants and all separate plants with a securely attached waterproof tag, bearing legible designation of botanical and common name, written with waterproof ink.
- 11. Store and cover materials to prevent deterioration. Remove packaged materials which have become wet or show deterioration or water marks from the site and replace at the Contractor's own expense.

I. <u>Guarantee</u>

- 1. All landscaping work must have a replacement guarantee for a period either of three (3) years beginning at the date of acceptance of the Landscaping work or the monitoring period indicated in the Natural Resource Conditions of the NYSDEC permit, whichever is longer, and must be considered as shown within the guarantee provisions of Schedule A.
- 2. The Contractor must, for a period either of three (3) years beginning at the date of acceptance of the Landscaping work or the monitoring period indicated in the Natural Resource Conditions of the NYSDEC permit, whichever is longer, cultivate, weed, mulch, prune, and water all trees, shrubs, herbaceous plants, vines, and permanent seeded areas under this Contract, to the satisfaction of the Engineer. The Contractor must replace, according to the original specifications, any plant material which is dead or in a dying condition at the request of the Engineer. The Engineer must be the sole judge as to the condition of the plants. The guarantee and

BMP-85

maintenance applies to all planted and grassed areas, meadows, paved and other landscaped areas.

- 3. The approved plan and schedule do not relieve the Contractor in any way from any aspect of the replacement of dead plant material. The Landscape Subcontractor may alter the maintenance schedule based on weather and field conditions.
- 4. Replacement. Any plant material that is dead or not showing satisfactory growth, as determined by the Engineer, must be promptly removed and replaced by the Contractor during the proper planting season as indicated in the Contract Documents. The replacement must be of the same variety, size and character as specified for the original planting. Unless a written waiver of this clause is issued, under the terms of the guarantee, replacement plants must be chosen only by the Engineer.
- 5. At the end of the guarantee period, and upon written request, an inspection will be made by the Engineer. If mortality exceeds ten percent or if bare areas occur, the Contractor must replace plant material.

J. <u>Planting Schedule</u>

- 1. Planting operations must be performed during the timeframes indicated below. No plant material may be installed when the ground is frozen or excessively moist in condition. The Engineer must be notified twenty-four (24) hours prior to proceeding with any planting operations.
 - a. <u>Deciduous Plantings</u>

Deciduous plant material must be planted and transplanted from March 15th to May 15th and from October 15th to December 1st unless otherwise shown on Contract Drawings or as directed by the Engineer.

b. <u>Evergreen Plantings</u>

Evergreen plant material must be planted and transplanted from March 15th to May 15th and from October 15th to December 1st unless otherwise shown on Contract Drawings or as directed by the Engineer.

c. <u>Herbaceous Material</u>

- i. Wetland herbaceous plant material must be planted and transplanted from April 15th to June 30th and from August 15th to September 15th unless otherwise shown on Contract Drawings or as directed by the Engineer.
- Upland herbaceous plant material must be planted and transplanted from April 15th to June 30th and from September 1st to October 15th unless otherwise shown on Contract Drawings or as directed by the Engineer.

K. <u>Materials</u>

- 1. <u>Topsoil</u>
 - a. Additional topsoil must be furnished from sources off the Contract site when existing on-site topsoil is not sufficient. Material must consist of natural loam topsoil, free from subsoil, obtained from an area which has never been stripped.
 - b. Topsoil must be in accordance with Section 7.403 Top Soil for Restored Area and in accordance with the Contract Drawings and as directed by the Engineer.

2. <u>Fertilizer</u>

a. For all plants, Fertilizer must be in accordance with NYCDOT Standard Highway Specification 4.17 Shrubs and Groundcover, Section 4.D – Fertilizer and in accordance with the Contract Drawings.

3. <u>Mycorrhizal Fungi Inoculant</u>

- a. For trees, Mycorrhizal Inoculant must be in accordance with NYCDOT Standard Highway Specification Section 4.16 Trees (Removal, Transplanting, Planting) Section 4.E Mycorrhizal Fungi Inoculant and in accordance with the Contract Drawings.
- b. For small trees, woody shrubs, woody groundcover, Mycorrhizal Inoculant must be in accordance with NYCDOT Standard Highway Specification Section 4.17 Shrubs and Groundcover, Section 4.H – Mycorrhizal Fungi Inoculant and in accordance with the Contract Drawings.
- 4. <u>Mulch</u>

a. For all plants, Mulch must be in accordance with NYCDOT Standard Highway Specification Section 4.17 Shrubs and Groundcover, Section 4.J – Mulch and in accordance with the Contract Drawings.

5. <u>Compost</u>

- a. For all plants, Compost must be in accordance with NYCDOT Standard Highway Specification Section 4.17.4.B – Compost and in accordance with the Contract Drawings.
- 6. <u>Staking and Wrapping</u>
 - a. For trees, staking and wrapping must be in accordance with NYCDOT Standard Highway Specification 4.16 Trees, Section 4.16.5 D Planting and in accordance with the Contract Drawings.
- 7. <u>Erosion Control Mat (Blanket)</u>
 - a. The erosion control mat or blanket must be in accordance with Section 7.407a – Erosion Control Mat - Straw or Section 7.407b – Erosion Control Mat – Curled Wood or Coconut Fiber and in accordance with the Contract Drawings.
- 8. <u>Seeding</u>
 - a. Seeding must be in accordance with Section 7.401-I Seeding and in accordance with the Contract Drawings.
- 9. <u>Plant Material</u>
 - a. The Contractor must furnish all plant material indicated in Contract Drawings and must be accordance with the following:
 - i. All containerized and balled and burlapped trees and shrubs must be freshly dug; neither heeled-in nor plants from cold storage will be accepted. All plants must have been transplanted or root pruned at least once in the past three years.
 - ii. All plants must conform to the measurements specified in the plant list on the Contract Drawings. All plants must be typical of their species and must have a normal,

BMP-88

healthy habit of growth and be of first quality, sound, vigorous, well-branched and densely foliated. Plants that meet the requirements specified in the plant list, but that do not possess a normal balance between height and spread will not be accepted. No damaged or diseased plants will be accepted.

- All deciduous trees must be well-branched and furnished to the ground. There must be no abrasion of the bark, no fresh cuts of limbs over 1-1/4" which have not completely calloused over and have a heavy fibrous root system.
- iv. All evergreen trees must be heavy, symmetrical plants well-furnished to the ground. They may be multiplestemmed. All evergreen trees must be free from winter injury and have a heavy fibrous root system.
- v. Trees 4" caliper or less must be calipered six inches above ground. Trees greater than 4" caliper must be calipered one foot above ground.
- vi. All trees must be tagged on north side of tree for proper orientation when planting.

L. <u>Installation</u>

- 1. Layout: All plants must be installed as indicated in the Contract Drawings unless otherwise directed by the Engineer. All plant and planting area locations must be staked prior to planting with located approved by the Engineer.
- 2. Obstructions Below Ground: Remove any rock, rubble, masonry, concrete, metal, stones over one inch or other underground obstructions to the depth necessary to permit proper planting.
- 3. Loosen subsoil/subgrade to a depth of six (6) inches prior to topsoil placement or as indicated on the Contract Drawings. Loosen subsoil with rototiller, backhoe or discer. After soil is loosen, there must be no more use of heavy machinery in planting plans.
- 4. For trees and shrubs: Rototill/cultivate soils to a depth equal to the depth of the root ball and two times the diameter of the root ball. Set the tree/shrub on the undisturbed solid ground in the center of the area.

- 5. Remove and dispose of all excess excavations and unsuitable materials except where soil is suitable for reuse on site. Reuse of on-site soil must be approved by the Engineer. Dispose in accordance with all local laws and regulations at the Contractor's own expense.
- 6. Apply clean sand topsoil mix as indicated by the Contract Drawings, equipment used for topsoil distribution must not compact the soil.
- 7. Setting Plants: Plant all plants to the same depth as their place of growth, unless otherwise directed. Center the plants in their planting pits. Set in the natural upright position at such a level that, after settlement, a normal or natural relationship of the crown of the plant with the ground surface must be established. The Contractor must not exert any pressure that will damage any portion of the plant.
- 8. Clean sand mix must be lightly tamped around the base of all plants and trees. Avoid compacting the soil. As clay soils are particularly prone to compaction, especially if worked when wet, transplant into clay soils when they are not saturated to the greatest extent possible. The Contactor must not leave plants exposed to sun or wind prior to planting and must take special care to avoid desiccation of fibrousrooted plants.
- 9. Trees and Shrubs: Trees and shrubs must be planted before herbaceous plants to avoid trampling of the smaller material. Trees should be placed with the "best" side rotated to be the most visible. Where trees are being planted and are not visible, they must be placed with the tags facing North. to limit bark sun scald. The Contractor must properly sequence plant delivery to achieve this progression.
 - a. Balled and burlapped. The roots of balled and burlapped plants must, if not immediately planted after digging and inspection, be adequately protected by topsoil until planted in their final location. Handle balled plants so that the ball will not be loosened. After the soil has been thoroughly firmed under and around the ball, cut the burlap away from the upper half of the ball and adjust remaining burlap to prevent the formation of air pockets; when directed by the Engineer remove the burlap entirely. Firm the soil at 6" to 8" intervals and thoroughly settle with water. Remove all wire baskets from root balls, unless otherwise directed by the Engineer. Install mulch around trees and shrubs immediately after installation.

- b. Container. Cut containers on two (2) sides with an approved can cutter and remove plant from container. Set container grown stock as specified. If container grown plant is root-bound or can be easily pulled from container, plant must be rejected. Place plant on a cushion of planting soil mixture and carefully work soil mix around roots by hand and puddle with water until the soil mix layers are completely saturated.
- c. Tube stock. Plants must be removed from tube entirely and without damage. Plugs must have solid soil/root masses with the soil in place. Roots must appear clean and white in coloration. If plug is root-bound or can be easily pulled from tube, plant must be rejected. Plug must be installed in hole perpendicular with root collar and even with the surrounding grades. Plant to be firmed in to remove air pockets, then watered to full saturation.
- d. Install Deer Protection Cage as per contract drawings after trees and shrubs are planted. The Contractor must be responsible for removing the cages at the end of the guarantee period for Trees and Shrubs, or at the direction of the Engineer.
- 10. Trees that are to be staked as indicated on Contract Drawings shall be staked as per NYCDOT Standard Highway Specification Section 4.16 – Trees (Removal, Transplanting, Planting) immediately after planting, as required by the Engineer. Trees planted as part of a natural area restoration must use modified staking system if deemed necessary and approved by Engineer. Stakes must be removed after one complete growing season.
- 11. Mulch or install Erosion Control Blanket as indicated on Contract Drawings.
- 12. Wetland Plants: Wetland plants must be planted at proper elevations as indicated in Contract Drawings. The Contractor is to stake out all wetland plantings with elevations indicated and receive written approval from Engineer prior to installation.
- 13. Apply fertilizer as indicated on Contract Drawings.
- 14. Prune all woody plant material as per Section 7.419 Tree and Root Pruning.

M. <u>Final Acceptance</u>

Trees, shrubs and herbaceous plants must be thriving to the discretion of the Engineer. Planting beds must be evenly mulched and free of invasive nonnative plant species. Paving/landscape interface must be a smooth, crafted transition free from defects such as gaps, sharp edges or sudden level changes.

N. <u>Final Cleanup</u>

At time of final inspection of work, and before final acceptance, clean any paved areas that are dirty or stained due to work of this Section by sweeping or washing, and remove any defacements or stains. Remove construction equipment, excess materials and tools. Remove from site any debris and dispose of off-site, in accordance with all local laws, and at the Contractor's expense. The Contractor must also cut all perimeter grass and weeds before final acceptance.

O. <u>Delivery</u>

The Contractor shall furnish and deliver unused trees elsewhere on Staten Island as directed by the Engineer.

P. <u>Measurement and Payment</u>

The quantity to be measured for payment under this section must be the total amount of trees, shrubs, herbaceous plants and seeded areas furnished, planted and maintained.

The contract price per unit for Landscaping Work must be as indicated on the BID SCHEDULE OF PRICES Item Nos. BMP-7.401-A1 through BMP-7.401-J. The price bid must be a separate unit price per tree, shrub and herbaceous plant specified within the Contract Drawings, and must include the costs of all excavating, backfilling, preparing planting pits and beds, adding soil amendments, furnishing plants, digging, inspecting, planting, pruning, staking, guying, anchoring, wrapping, mulching, fertilizing, liming, discing, raking, tilling harrowing, mowing, material, and maintaining all plant material.

The price bid must also include the costs of all rough and fine grading, all specified soils necessary and required for the satisfactory completion of all landscaping work and all other work incidental thereto in accordance with the plans and specifications to the satisfaction of the Engineer.

PLANT MATERIAL SUMMARY FOR LANDSCAPING WORK

BMP-92

Item

Description

2"
5'-6'
ugs
5

7.401-I <u>SEEDING</u>

A. <u>Description of Work</u>

1. <u>Description.</u>

Under this item, the Contractor must furnish all labor, materials, equipment and services necessary for the proper execution of all landscape seeding, as specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

2. <u>Related Sections.</u>

a.	Section 7.401	Landscaping for Terrestrial Zone and
		Wetland Zone
b.	Section 7.404-A	Restoration Specialist (Construction
		Monitor)
c.	Section 7.411	Watering and Weeding During the
		Guarantee Period

3. <u>General Requirements.</u>

- a. All seed must have been collected from locally adapted ecotypes within a 250-mile radius of the project site. Seed sources must be submitted to the Engineer to approval prior to approval.
- b. No substitutions of specified seed mixes will be accepted without prior approval of the Engineer.
- c. All seed must be shipped with certificates of inspection when required by governmental authorities. Comply with governing regulations applicable to landscape material.
- d. Packaged Material. Packaged material must include manufacturer's certified analysis.
- e. All seed must be interagency certified under the auspices of a State Seed Improvement Cooperative and must bear their seals of certification on bag. Permanent seed must be 75% Pure Live Seed minimum. Weed content of seed lots must not exceed 0.25 percent. All seed must be free of noxious weeds. Provide fresh, clean, new-crop seed complying with the tolerance for purity and germination established by the Official Seed Analysts of North America. Provide seed of

the species, proportions and minimum percentages of purity, germination, and maximum percentage of weed seed.

- f. All seed furnished under this Item must be true to name. Plant names must agree with the nomenclature of Standardized Plant Names as adopted by the American Joint Committee on Horticultural Nomenclature, 1942 Edition.
- 4. Inspection:
 - a. The Contractor must be responsible for all certificates of inspection of seed material that may be required by Federal, State or other authorities to accompany each shipment of plants. On arrival, the certificates must be filed with the Engineer. The Engineer must receive a copy of each shipping invoice immediately after the delivery has arrived at the job site.
- 5. <u>Submittals</u>
 - a. Certification that all seed has been collected from locally adapted ecotypes within a 250-mile radius of the project site.
 - b. Seeding Schedule: Submit proposed seeding schedule within one month of official Notice to Commence Work. Correlate from date of substantial completion. Once accepted, revise dates only as approved in writing by the Engineer, after documentation of reasons for delays.
 - c. List of equipment and methods of operation.
 - d. Manufacturer's Literature. Manufacturer's literature for all materials furnished shall be submitted with samples of same.
 - e. Purity and Gemination Testing: The Contractor must submit purity and germination tests on the seed mixes to be used on the project. The results of the germination test shall be included in with the information submitted to the Engineer for review and acceptance. The Contractor is advised that these tests can run two-months or more and should be prepared to have these tests completed in sufficient time for the next seeding season. Seed shall conform to all applicable state and federal regulations and to test provisions of the Association of Official Seed Analysts.

f. Watering, Weeding, and Maintenance Plan: Watering, weeding, and maintenance of seeding must be in accordance with Section 7.411 – Watering and Weeding During the Guarantee Period.

6. <u>Product Delivery, Storage and Handling</u>

- a. Seed must be clean and fresh and delivered to the site in the original, unopened bags showing the net weight, composition of mix, suppliers name and guarantee of analysis. Seed must be delivered and stored in original unopened packages, kept dry, and not opened until needed for use. Damaged or faulty packages must not be used and will be rejected. Seed must have been harvested for planting in the current growing season and must have been packed within the last nine (9) months.
- All seed must be interagency certified under the auspices of a State Seed Improvement Cooperative and must bear theirs seals of certification on each 50-pound bag. Permanent seed must be 75% pure live seed minimum.
- c. Seed materials will be inspected by the Engineer upon arrival at the job site and prior to seeding. Any materials not in compliance with specifications will not be accepted and must be removed from the job site immediately.
- d. Furnish seed in sealed, standard containers with germination and purity percentages clearly labeled.
- e. Store and cover materials to prevent deterioration. All materials must be stored in upland areas that are protected from weather. All seed materials must be protected from drying out and from wind damage during delivery. Remove packaged materials which have become wet or show deterioration or water marks from the site and replace at Contractor's own expense. Seed that is wet or moldy or that has been otherwise damaged in transit or storage must be replaced at Contractor's own expense.

7. <u>Guarantee</u>

a. Any areas which fail to show growth within three (3) weeks of seeding shall be immediately reseeded at the Contractor's own expense. Reseeding shall be carried out as many times as necessary until a uniform cover is established. Scattered

bare spots, none of which are larger than one (1) square foot, will be allowed up to a maximum of three (3) percent of any seeded area.

- b. The Contractor must, for a period either of three (3) years beginning at the date of acceptance of the Seeding or the monitoring period indicated in the Natural Resource Conditions of the NYSDEC permit, whichever is later, cultivate, weed, and water permanent seeded areas under this Contract, to the satisfaction of the Engineer. The Contractor must reseed, according to the original specifications, any permanent seeded area any bare or sparse areas at the request of the Engineer.
- c. At the end of the guarantee period, and upon written request, an inspection will be made by the Engineer. If the seeding areas do not display 85% coverage of the seeding material specified, the Contractor must reseed to the satisfaction of the Engineer.
- 8. Seeding Schedule
 - a. Permanent Seeding and Lawn Seeding must be installed between April 15th to May 30th and between September 1st and October 15th unless otherwise indicated on Contract Drawings or directed by the Engineer. The Contractor must be aware that if Lawn Seed is installed between April 15th to May 30th, additional seed may need to be applied at the Contractor's own expense if seed does not germinate to 85% cover.

B. <u>Materials</u>

1. <u>Temporary Seed Mixtures</u>

Temporary Seed Mixtures must be as indicated on Contract Drawings and as directed by the Engineer.

2. <u>Permanent Seed Mixture</u>

Permanent Seed Mixtures must be as indicated on the Contract Drawings and as directed by the Engineer.

3. <u>Nurse/Cover Seed Mixture</u>

Nurse/Cover Seed Crop must be as indicated on the Contract Drawings and as directed by the Engineer.

4. <u>Fertilizer and Limestone</u>

Fertilizer and Limestone must be as indicated on the Contract Drawings and as directed by the Engineer.

C. <u>Seed Installation</u>

1. <u>Temporary Seed Mixture</u>

Temporary Seed Mixture shall be applied as per Erosion and Sedimentation Control Plan, SWPPP, as indicated on Contract Drawings, or at the direction of the Engineer.

Temporary Seed Mixture shall be applied at rates as per Erosion and Sedimentation Control Plan, SWPPP, as indicated on Contract Drawings, or at the direction of the Engineer.

If temporary seeding is not made within twenty-four (24) hours of construction/disturbance the soil must be scarified prior to seeding.

Method of seeding – seed must be evenly applied with broadcast seeder, drill or cultipack seeder.

Mulch is not required if Temporary Seed Mixture is installed between (March 15 – May 15 or September 1 – October 15) Any temporary seeding outside of those dates must be hydroseeded with a mulch binder. Binder must be a cellulose or non-asphaltic emulsion, natural gum binder blended with gelling or hardening agents. A wood fiber mulch must also be added to the binder for improved stability. Terra-tack, as manufactured by Reinco, Inc., Hydrobond by JRM Chemical, Inc, Dustout by DustoutUS, or approved equivalent as by the engineer, must be used. Alternatively, the temporarily seeded area can be mulched with a straw of oat or wheat stalks (not hay) applied at a rate of 2 tons per acre (100 - 200 bales / acre) uniformly distributed over the sown seeds and held in place through the use of a straw crimper.

Any area that fails to establish vegetative cover adequate to prevent rill erosion will be reseeded as soon as such areas are identified.

2. <u>Permanent Seed Mixture</u>

Permanent Seed Mixture shall be applied as per as indicated on Contract Drawings, or at the direction of the Engineer.

Permanent Seed Mixture shall be applied at rates as indicated on Contract Drawings, or at the direction of the Engineer.

Seed may not be broadcasted by mechanical application when the wind velocity is such as to prevent uniform seed distribution.

All sticks, stones, roots or other objectional material shall be removed. Before any seed is placed, all areas to be seeded shall be thoroughly loosened with a rototiller to a depth of nine (9) inches below the proposed grade. Soil allowed to remain shall be amended in place, as necessary to meet the requirements for topsoil for a full depth of five (5) inches below the proposed grade. Hallows, depressions, gullies should be filled by raking to level and topsoil added as necessary to provide a smooth, level surface prior to seeding.

Method of Seeding – Seed must be broadcast by hand or mechanically using a drop-hopper. Seeds must be blended thoroughly with a sand filler and uniformly broadcast over the entire areas then gently hand raked 1/8 to 1/4 inch into the soil..

Seed must be watered as recommended by the seed manufacturer to achieve specified growth coverage.

Permanent seeded areas must be covered with erosion control mat per 7.407A and as indicated by Contract Drawings or as directed by the Engineer.

Seeding will be deemed acceptable when 85% coverage of the seeded area with the seeded species has been achieved. Any area not meeting this requirement must be reseeded with the original seed mix.

D. <u>Measurement and Payment</u>

The quantity to be measured for payment under this section must be the total amount of seeded areas furnished, planted and maintained in accordance with the plans and specifications and direction of the Engineer and must cover the cost of furnishing all labor, seed, fertilizer, lime, installation, equipment necessary to complete the work. The contract price per square feet of approved Seeding must be as indicated on the BID SCHEDULE OF

PRICES Item No. BMP-7.401-I. The bid prices must be a unit price per square feet of Seeding furnished.

* * * *

7.403 <u>TOP SOIL FOR RESTORED AREA</u>

A. <u>Description of Work</u>

Under this item, the Contractor shall prepare topsoil areas and shall furnish, place and incorporate topsoil in accordance with the plans and specifications or as directed by the Engineer.

The Contractor shall be liable for any damage to property caused by topsoiling operations and all areas of construction disturbed shall be restored to their original condition to the satisfaction of the Engineer.

B. <u>Material</u>

Material shall consist of natural loam topsoil, free from subsoil. It shall be removed to a maximum depth of one (1) foot, or until subsoil is encountered. Topsoil shall be of uniform quality, friable, free from hard clods, stiff clay, hard pan, partially disintegrated stone, stones larger than one (1) inch diameter, lime, cement, ashes, slag, concrete, tar residues, tarred paper, gasoline, motor oil, or other petroleum hydrocarbons, boards, brush, weeds, stalks, roots, sods, chips, sticks or any other undesirable material. Invasive, nonnative seed shall not be allowed in the topsoil material.

All topsoil shall be tested by a New York State Cooperative Extension office or by an approved analytical laboratory with 5 years documented history of soil testing for state, city or county projects.

Topsoil from site stripping shall be tested prior to stripping. Soil test shall be performed per five (5) acres and at the extremes of elevations. After site topsoil has been stripped, stockpiled, and amended per soil test results, the stockpiled topsoil shall be tested again. For imported and stockpiled topsoil, soil tests shall be required and shall serve as a representative analysis for every 200 cubic yards of material utilized.

Topsoil shall comply with the following requirements: No topsoil shall be delivered in a frozen or muddy condition.

1. <u>Organic Content</u>: Topsoil shall contain a minimum four (4) percent organic matter and a maximum of fifteen (15) percent organic matter determined by loss, on ignition, of moisture-free samples dried in accordance with the current method of the Association of Official Agricultural Chemists. The acidity range shall be pH 5.5 to pH 6.5 inclusive.

2.

levels, and soluable salts.

 Range
 Nutrient

Nutrient Content: Magnesium, nitrogen, postassium, phosphorus

	<u>Ra</u>	inge	Nutrient
4	—	8 (PPM)	Phosphorus (P)
66	—	100	Magnesium (Mg)
115	—	164	Potassium (K)
0.36	-	0.75	Boron (B)
0	—	49	Iron (Fe)
0.5	_	1.0	Zinc (Zn)
85	_	120	Nitrogen (N)

Soluble salts shall be less than 2.5 millisemens.

- 3. <u>Total Petroleum Hydrocarbon Content</u>: Topsoil shall be tested for total petroleum hydrocarbons (TPH) by the Gravimetric-Hexane Method, as approved by the US Environmental Protection Agency. Topsoil shall contain less than 150 ppm total petroleum hydrocarbons. All soil testing positive shall be rejected and removed from the site.
- 4. <u>Sieve Analysis</u>: (By Wash Test, ASTM Designation C117)

The mechanical analysis of the soil shall be as follows:

Passing 2" sieve 100% Passing 1" sieve 95% to 100% Passing #4 sieve 90% to 100% Passing #100 sieve 30 % to 60%

- 5. <u>Electrical Conductivity:</u> Topsoil should have a maximum electrical conductivity of 1,000 micromhos/centimeter.
- 6. <u>Invasive, Nonnative Plant Species</u>: Topsoil shall be free of invasive nonnative plant propagules or if present, topsoil shall be sterilized with documentation.

When topsoil otherwise complies with the requirements of the specifications but shows an organic matter deficiency of not more than one (1) percent, organic matter may be incorporated when and as permitted by the Engineer.

The Contractor shall at the direction and discretion of the Engineer, or when quantities exceed two hundred (200) cubic yards, furnish a certified report

of an approved analytical chemist showing the analysis of representative samples of the topsoil which he/she proposes to use. All samples are to be taken by the Engineer and delivered to the laboratory. The price bid shall include inspection and laboratory charges. No topsoil shall be delivered until the approval of samples by the Engineer, but such approval shall not constitute final acceptance. The Engineer reserves the right to reject on or after delivery any material which does not, in his/her opinion, meet these specifications.

The Engineer reserves the right to reject topsoil in which more than sixty (60) percent of the material passing the No. 100 U.S.S. mesh sieve consists of clay as determined by the Buoyoucous Hydrometer or by the decantation method. All percentages are to be based on dry weight of sample. If the Engineer directs, topsoil which varies only slightly from the specifications may be made acceptable by such corrections as the Engineer deems necessary.

C. <u>Preparation of Topsoil Areas</u>

Before any topsoil is placed, the subgrade shall be graded to a smooth, uniform surface, parallel to and below finished grade, the depths of which are shown on the plans or as directed by the Engineer. The subgrade surface shall be compacted with an approved roller weighing approximately five hundred (500) pounds. Hollows, depressions and gullies shall be filled with acceptable material free from stones over one (1) inch in diameter, cinders, rubbish and other unsuitable material. Fill which is four (4) inches or more in depth shall be compacted to the satisfaction of the Engineer.

All bumps, mounds, and ridges shall be cut down to subgrade elevations as shown in the Contract Drawings. All areas of the subgrade that are not in a friable condition shall be loosened to a depth of twelve (12) inches as directed by the Engineer. All surplus material and debris shall be removed and disposed of as directed by the Engineer.

D. <u>Spreading</u>

Topsoil for upland areas shall be spread and compacted to the overall depth of that which exists within the restoration area or to three (3) inches, whichever is greater. Topsoil for wetland areas shall be spread and compacted to the overall depth of that which exists within the wetland area or to four (4) inches, whichever is greater. The contractor shall use the lightest equipment appropriate to spread and compact the topsoil. Topsoil shall not be handled when, in the opinion of the Engineer, it is too wet.

Topsoil for backfilling planting pits and planting beds shall be mixed with compost having the general properties of humus in the following proportions:

Two (2) parts of topsoil to one (1) part of compost. They shall be thoroughly mixed by placing the compost evenly over the topsoil piles and turning the piles at least three (3) times or until thoroughly mixed to the satisfaction of the Engineer.

Topsoil mixed on-site must be tested by the Contractor and have a pH of 5.5-6.5.

The finish grade shall not be excessively compacted. Finish grade to 12" below soil surface shall be loose, friable soil and not excessively compacted to the satisfaction of the Restoration Specialist. Maximum acceptable compaction is to 83% of the standard (AASHTO) Proctor maximum dry density. Conversely, soil shall not be so loose that there is potential for extensive settlement, slumping, soil erosion, or excessive drainage. On-site compaction tests, if required, shall be a standard test such as Nuclear Density Meter, or Sand Cone, or Balloon Density performed at contractor expense. After finish grading, and prior to installation of any erosion control fabric, planting, seeding, the Restoration Specialist shall inspect extent of soil compaction. Restoration Specialist shall re-inspect extent of compaction after completion of all site work. If required, Contractor will be required to loosen top 12" of soil to the satisfaction of the Restoration Specialist.

E. <u>Mycorrhizal Inoculants</u>

All trees and shrubs planted in areas receiving topsoil from off-site sources or on-site topsoil stored more than one (1) year shall be inoculated with Mycorrhizal.

F. Measurement and Payment

The quantity of topsoil to be paid for under this item shall be the number of cubic yards of topsoil furnished from off-contract site sources (i.e. suppliers approved by the engineer), mixed, placed and incorporated in the completed work in accordance with the plans and specifications to the satisfaction of the Engineer, measured in trucks used for delivery, at the site of the work. The quantity of topsoil to be paid for under this item shall be measured in cubic yards in trucks used for delivery. No topsoil shall be furnished until ordered by the Engineer. (No deductions shall be made except for the volume of topsoil displaced by balls of trees, except in paved areas). Delivery ticket with name and address of vendor, date and estimated volume must be supplied to the Engineer prior to truck measurement.

BMP-104

The contract price per unit for Topsoil shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.403. The bid price shall be a unit price per cubic yard of topsoil, and shall include the cost of all labor, materials and equipment necessary to prepare topsoil areas, furnish, mix, place and incorporate topsoil and compost, and all other work incidental thereto, in accordance with the plans and specifications to the satisfaction of the Engineer.

7.404–A <u>RESTORATION SPECIALIST (CONSTRUCTION MONITOR)</u>

A. <u>Description of Work</u>

The Contractor is advised that the portions of work within this Contract pertaining to the construction of the outfall, stormwater basins and all other work in the project area must require the supervisory expertise of a Restoration Specialist. The Restoration Specialist must supervise all restoration work performed by the Contractor and its Subcontractors for the duration of the project, in accordance with the plans, specifications and directions of the Engineer.

The Restoration Specialist must also be responsible for overseeing the implementation of the project's soil erosion control plan. Furthermore, the Restoration Specialist must be responsible for overseeing all installation of plant material. The Restoration Specialist must be responsible for preparing a restoration plan for any property disturbed by sanitary or storm sewer construction. The Restoration Specialist must report to the Engineer. The qualifications of the Restoration Specialist must be approved by the Engineer and on-site prior to the start of any work.

B. <u>Qualifications</u>

The Restoration Specialist utilized to perform the work required must have performed at least three (3) projects similar in scope and type to the required work in the previous five (5) years. The Restoration Specialist must be a Registered Landscape Architect, Professional Wetland Scientist, or have equivalent professional experience. Prior to the start of work, the Contractor must be required to submit the names and resumes of at least three prospective candidates to the Engineer for approval. The Engineer may approve the qualifications of the prospective candidates or alternatively ask for more choices, if the Engineer deems the candidates to be not qualified.

C. <u>Site Monitoring</u>

The Restoration Specialist must monitor the Contractor's in-place erosion and sediment control devices, including, but not limited to, construction (limiting) fences, silt fences, etc., and must notify the Contractor when maintenance or repair of these devices is necessary. The Restoration Specialist must monitor related/adjacent construction to ensure that these activities do not adversely impact restoration activities or the success of the restoration work.

D. <u>Restoration Supervision</u>

The Restoration Specialist must supervise all aspects of the wetland and upland installation including vector, pest and wildlife control, in-stream sediment removal work, plant and sod salvage, and perimeter restoration work. The Restoration Specialist must oversee all landscaping activities including installation of plant material related to the restoration of wetland areas.

E. <u>Design and Design Review</u>

The Restoration Specialist must prepare, design, and review design work as needed during construction. This work must include but not be limited to the following:

- a. research and prepare design revision/modification drawings,
- b. research and prepare revisions/modifications to detailed specifications,
- c. prepare supplemental field sketches,
- d. review and critique design modification drawings and supplemental drawings.

The Restoration Specialist must undertake this work when directed by the Engineer.

F. Photo Documentation

The Restoration Specialist must keep a digital photograph log of the project. The photo log will follow the progress of the project, in a clear and understandable progression, and must incorporate before, in progress and completed photographs of the work area and natural area restorations within the project. Fixed photo points must be used at each site to ensure that before and after photographs are taken from the same location, direction, and angle.

The Restoration Specialist must use a digital camera with a minimum resolution of 4.1 megapixels for use during all phases of the project for photo-documentation purposes. The Restoration Specialist must assemble the completed photo log onto CD's and transmit the complete photo log to the Engineer.

G. <u>Monitoring Reports</u>

The Restoration Specialist must prepare and submit a Monitoring Report to the Engineer following the completion of all planting and associated restoration and wetland mitigation activities. The Restoration Specialist must continue to submit an annual Monitoring Report until the guarantee period(s) for the plant material and/or the reporting requirements per applicable project permits have expired. Six (6) copies of each report submittal must be prepared and submitted to the Engineer.

The Restoration Specialist must examine, monitor and report on the various components of the restoration and must incorporate color photographs, color photocopies, graphs, etc., as appropriate. All information must be reported in a concise format. The Monitoring Report must:

- report on all construction activities related to restoration and stabilization,
- report the conditions of the vegetation planted within this Contract,
- quantify survival and cover rates and compare to permit requirements,
- recommend replacement species,
- report observed impacts to existing vegetation,
- report success rates in controlling erosion and sedimentation,
- report voluntary plant species recruitment,
- present recommendations for the increasing the success of the restoration site,
- give general commentary for increasing the success of future restoration projects.

H. Measurement and Payment

The quantity to be measured for payment under this section must be the total number of hours necessary for the supervision of all restoration work within this Contract, site monitoring, design and diagram review, photo documentation, preparation of monitoring reports and completion of the asbuilt plans in accordance with the plans, specifications and direction of the Engineer, performed prior to the date of Substantial Completion.

BMP-108

For supplying all labor, materials and equipment necessary for Restoration Specialist, the Contractor must receive a unit price bid.

The contract price per unit for Restoration Specialist must be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.404-A. The unit price bid must include the costs for all labor, materials, equipment and incidental expenses necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the City and the Engineer.

No separate or additional payment will be made for work performed in accordance with the requirements of this section during the Maintenance and Guarantee Period specified for the Landscaping work. In addition, said work must be considered a part of the Maintenance and Guarantee and subject to the provisions thereof should the Contractor fail to complete this work as specified.

7.405 <u>VECTOR, PEST AND WILDLIFE CONTROL</u>

A. <u>Description of Work</u>

When, in the course of construction, the Engineer deems it necessary, the Contractor shall make arrangements to immediately implement a Vector and Pest Control Program at the construction site. All work is to be performed by a Licensed Applicator, and shall comply with all NYC and NYS Department of Health requirements for Vector and Pest Control and the methods outlined below. The work shall also include the control of mosquito larvae. The work shall be performed on a periodic basis as determined by the Engineer.

The Contractor shall also make arrangements to hire a Wildlife Control Agent, licensed by the NYSDEC, for live capture and removal of muskrats and any other wildlife if the Engineer deems it necessary. The wildlife, which shall include pond life such as fish, frogs, and turtles shall be removed before full-scale construction begins. The wildlife shall be relocated off-site and upstream.

It is anticipated that once construction commences, the resident water fowl will leave the existing wetland areas. However, if the waterfowl do not leave on their own following the commencement of work in the wetland areas, the Wildlife Control Agent shall make recommendations for their removal, and shall relocate the waterfowl to another water body on Staten Island.

All work in this item shall be supervised by the Restoration Specialist.

- B. <u>Material</u>
 - 1. <u>Rodent Control</u> Rodent control shall be done in accordance with the applicable sections of New York City Department of Transportation Standard Highway Specification 7.88 Rodent and Waterbug Pest Control.
 - 2. <u>Mosquito Control</u> As directed by the Engineer or Restoration Specialis, the licensed application shall treat stagnant water for mosquito larvae with products approved by the New York City Department of Health. These include Vectolex, Altosid, Vectobac, and Aquabac. Products used shall consist of the naturally occurring bacteria, Bacillus thuringienis.
 - 3. <u>Wildlife Control</u> The effort to live capture and remove pond life such as muskrats, fish, frogs and turtles shall be undertaken by a

BMP-110

Wildlife Control Agent, licensed by NYSDEC, employing various materials such as seines for catching fish, traps for live capture of turtles and muskrats, and possible use of electric shock to also capture fish.

C. <u>Method</u>

Application of rodent control shall be per the applicable section of New York City Department of Transportation Standard Highway Specification 7.88 Rodent and Waterbug Pest Control.

Application of insecticide shall be as per the manufacturer's recommended procedures and shall be in compliance with all applicable rules and regulations and at the direction of the Engineer.

The Applicator shall be responsible for collecting and disposing of all trapped and poisoned rats found in live-traps and tamper-proof boxes, and for the removal of all live-traps and tamper-proof boxes at the end of the work. The Applicator shall be responsible for posting and maintaining signs announcing the baiting and spraying of a particular location.

The Wildlife Control Agent licensed by NYSDEC, who will be responsible for the live-capture and removal of pond life shall use various techniques to accomplish his/her task. As the water in the pond is slowly drawn down, life will be concentrated in the center of the pond. A geofabric may need to be rolled over the muck to make the center of the pond accessible. The fish shall be caught with a seine (net), electric shock or other approved method, and shall be scooped into buckets. Traps shall be used for turtles. Buckets containing wildlife shall be kept shaded, and wildlife shall be relocated to off-site and upstream release sites immediately so that there is no need to use aerators.

D. <u>Measurement and Payment</u>

The quantity to be measured for payment under this section shall be the total number of hours necessary for completion of Vector, Pest and Wildlife Control.

The contract price per unit for Vector, Pest and Wildlife Control shall be indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.405-A. The unit price bid shall include the costs for all labor, materials, equipment and incidental expenses necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

7.407–A <u>EROSION CONTROL MAT - STRAW</u>

A. <u>Description of Work</u>

- 1. Under this item, the Contractor must furnish and place erosion control mat for slope protection within areas designated in the Contract Drawings or where directed by the Engineer.
- Contractor must submit manufacturer catalog cut sheet and min 10" x 10" sample of material to the City and Engineer for approval thirty (30) days prior to installation. The Contractor must have written approval from the City or Engineer prior to installation.

B. <u>Material</u>

The Erosion Control Mat must meet the following requirements:

Netting	One Side Only, Organic Leno Weave Jute, 100% Biodegradable 0.5" x 1.0" opening
Matrix	100% Agriculture Straw 0.55 lbs/yd ² 298.4 g/m ²
Thread	1.5" stitch space,

100% Biodegradable

	10070 Diodegradaoie		
Index Value Properties	3		
Property	Test Method	Typical	
Mass/Unit Area	ASTM D6475	10.00 oz/yd^2	
Thickness	ASTM D6525	.40 in	
Tensile Strength-MD	ASTM D6818	106 lb/ft	
Elongation-MD	ASTM D6818	16.7%	
Tensile Strength-TD	ASTM D6818	118 lb/ft	
Elongation-TD	ASTM D6818	26.8%	
Light Penetration	ASTM D6567	6%	
Water Absorption	ASTM D1117	322%	
Unvegetated Shear Stress	ASTM D6460	1.55 lbs/ft^2	
Slope		3:1 or flatter	

The Erosion Control Mat must be ECS-1B, by East Coast Erosion Blankets, Bernville, PA; BioNet S75BN by North American Green, Evansville, IN; US-1SNN by L and M Supply Co., Pearson, GA; or approved equal.

BMP-112

<u>Wire Staples</u> must consist of 12-inch lengths of No. 11 gauge wire bent to form a "U" or other wire staples as approved.

C. <u>Method</u>

Erosion control mat must be placed on topsoil perpendicular to slope contours where directed by the Engineer. Erosion control mat must be laid without stretching so that it lies loosely on the soil and in contact with the soil at all points and must be pressed firmly into the soil surface by rolling or tamping. If seeding is required, it must be done prior to the installation of the erosion control mat.

The upper end of each roll of erosion control mat must be turned and buried to a depth of six (6) inches, with the soil firmly tamped against it. Erosion control matting must have a minimum lap of six (6) inches on all sides. Ends of rolls must also have a minimum lap of six (6) inches with the upgrade section on top.

Check slots must be constructed at intervals of 50 feet, unless otherwise directed by placing a fold of erosion control mat six (6) inches vertically into the ground with replaced soil tamped firmly against it.

Erosion control mat must be held tightly to the soil by staples driven firmly into the ground. Staples must be spaced not more than three (3) feet apart, along the sides and center of the erosion control mat and not more than one (1) foot apart at roll ends, check slots and at other critical areas as determined by the Engineer.

D. <u>Maintenance</u>

The Contractor must maintain the areas of erosion control mat installation until final acceptance of the contract. Maintenance must consist of providing protection for erosion control mat and repair of areas damaged by equipment, erosion, fire, or other causes, as well as re-establishment of the grade and conditions of the area as specified.

E. <u>Measurement and Payment</u>

The quantity to be measured for payment under this Section must be the number of square feet of surface area on which erosion control mat has been installed in accordance with the plans and specifications and directions of the Engineer.

The Contract price per square feet of Erosion Control Mat - Straw must be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.407-A.

The bid price must include the costs for all labor, material, equipment and incidental in accordance with the plans and specifications to the satisfaction of the Engineer.

7.408-B <u>HERBICIDE APPLICATION</u>

A. <u>Description of Work</u>

1. Description

Under this item, the Contractor must apply herbicide to persistent herbaceous and woody growth in accordance with the Contract Drawings and as directed by the Engineer. The Contractor must secure all necessary state and local permits for the application of herbicide and adhere to any specific permit requirements or special conditions.

2. <u>General Regulations:</u>

The Contractor must carefully protect all plant material and structures during and following the herbicide application. Any repair to damaged plants and structures resulting from herbicide application must be repaired by the Contractor at the Contractor's own expense.

Invasive plants to be removed will be identified by the Engineer and clearly marked prior to removal. No trees are to be removed under this item.

B. <u>Quality Assurance</u>

- The Herbicide Applicator must possess a valid NYSDEC Type 5A
 Aquatic Vegetation Pesticide Applicator Certification License and personnel training records.
- 2. The Contractor must develop an herbicide application treatment plan for the control of invasive species prior to performing any construction activities. The plan must contain information on the products to be sprayed (including manufacturer's recommended application procedures and rates and all applicable material safety data sheets, the proposed schedule of herbicide application(s), credentials and certifications for all of the personnel that will be applying the herbicide. All appropriate health and safety data records and procedures to be implemented. Prior to execution of the herbicide application treatment plan, the Contractor must submit the plan for approval by the Engineer.
- C. <u>Materials and Methods</u>

- 1. The work will eradicate invasive, non-native plants in upland and wetland areas using Glyphosate isopropylamine salt type herbicide for eradication of all plants except Oriental Bittersweet, which will be treated with Garlon 4. All chemicals to be applied using backpack and hand-held sprayers and individual stem wipe or injection applications. Herbicides application to open water/marshlands is prohibited.
- 2. In wetlands, the Contractor must spray Rodeo Herbicide or approved equal onto specified weedy growth only, as directed and approved by the Engineer, between May and September.
- 3. All vine and invasive plant material must be removed by hand. The removal of these plant and materials must be from existing trees, fence lines, utility poles and lines, adjacent structures, BMP sites, and other areas within the watershed. All vines and invasive plant material removed must be disposed of by the Contractor at the Contractor's own expense.
- 4. Invasive tree climbing vines, including but not limited to Oriental bittersweet (Celastrus orbiculatus), porcelainberry (Ampelopsis brevipedunculata), greenbrier (Smilax spp.), honeysuckle vine (Lonicera spp.), must be cut flush to the ground. Herbicide must be applied to the cut stumps of the tree climbing vines where possible as determined by the Restoration Specialist and approved by the Engineer. The herbicide applied to the cut stump must be pure product not having been mixed with water. Once tree climbing vines have been cut, they are to be left in place until leaf material and clinging tendrils dry out. Invasive vines must then be removed from the trees by hand and as directed by the Restoration Specialist taking care to avoid damaging the trees.
- 5. The applicator must spray to wet--not to the point of runoff. Care must be taken to properly calibrate the tank nozzle so as to direct herbicide spray only onto the undesirable plants and obtain complete coverage of leaves and stems. Avoid spray drift onto desirable plants and minimize spray contact with soil. It is recommended to spray when plants are not under water stress. Only flat pan nozzles must be used when using a spray applicator.
- 6. In areas where invasive plants are tightly intermixed with native plants, the applicator must use the individual wipe or injection method to prevent the accidental treatment of desirable plant material. Marking dyes must be added to the herbicide at the request of the engineer to prevent the accidental treatment of desirable plant material.

- 7. Apply on a warm sunny day (75 degrees to 90 degrees preferred). Do not spray if wind speed exceeds 5 mph or if weather conditions would decrease the effectiveness of the herbicide or increase the intended target area. Do not apply or allow herbicide spray into surrounding waterbodies. Do not exceed the rates indicated on product labels.
- 8. A non-ionic surfactant that is labeled for use with herbicides must be added to the herbicide to help penetrate targeted plants for increased control. Surfactant must contain 50% or more active ingredient.
- 9. When using water from on-site hydrants, remove all suspended particles that may reduce the effectiveness of the herbicide prior to adding the water to the mixing tank.
- 10. All treated areas must be temporarily posted with signs indicating that the area has been treated with herbicide. Signs must be clearly posted in areas where the public may come into contact with the plant material.
- 11. The Contractor must return to the site after fifteen (15) calendar days and remove any dead vegetation that may interfere with planting of new material. If a second application is deemed necessary, a minimum of fifteen (15) calendar days is required before installing any new plant material. Planting may proceed when the site is deemed acceptable to the Engineer.
- 12. Any sucker or new growth that emerges post removal operations must be removed by the Contractor through the duration of the plant guarantee period.
- 13. The plant species to be eradicated must primarily include, but not be limited to, the following and must include additional species at the direction of the Engineer:
 - Asiatic sand sedge (*Carex kobomugi*)
 - black locust (*Robinia psuedoacacia*)
 - burning bush (*Euonymus alatus*)
 - common ragweed (Ambrosia artemisiifolia)
 - common reed (*Phragmites australis*)
 - English ivy (*Hedera helix*)
 - giant hogweed (Heracleum mantegazzianum)
 - giant ragweed (Ambrosia trifida)
 - Japanese honeysuckle (Lonicera japonica)
 - Japanese knotweed (*Polygonum cuspidatum*)

- Japanese stiltgrass (*Microstegium vimineum*)
- mile-a-minute vine (Polygonum perfoliatum)
- mugwort (*Artemisia vulgaris*)
- mutiflora rose (*Rosa mutiflora*)
- oriental bittersweet (*Celastrus orbiculatus*)
- porcelain berry (Ampelopsis brevipedunculata)
- purple loosestrife (Lythrum salacaria)
- Russian olive (*Elaeagnus angustifolia*)
- tree of heaven (*Ailanthus altissima*)
- white mulberry (Morus alba)

D. Measurement and Payment

The quantity to be measured for payment under this section must be the total number of crewday (shifts) necessary for completion of Herbicide Application. A crewday (shift) is defined as one period from 8AM - 4PM, including lunch and breaks. The crew must consist of two gardeners and one supervisor. The crew must also consist of the following equipment:

- a. one (1) truck (10-15 cubic yard enclosed hydraulic dump body)
- b. manual pole saw (2)
- c. full size lopping shears
- d. tool kit including files for minor mechanical repairs
- e. dirt shovel
- f. sweep type broom rake
- g. hand saw
- h. first aid kit
- i. ear and eye protectors
- j. hand saw with scabbard (2)
- k. axe
- l. broom
- m. hard hats
- n. safety cones
- o. red flags
- p. danger signs

The contract price per unit for Herbicide Application must be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.408-B. The unit price bid must include the costs for all labor, materials, equipment, vehicles and incidental expenses necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

7.411 WATERING AND WEEDING DURING GUARANTEE PERIOD

A. <u>Description of Work</u>

1. Description:

The Contractor must provide all labor, material, tools and equipment necessary to maintain and cultivate the healthy growth of all plantings in the planted area during the plant guarantee period. Plant material will not be accepted unless the plants exhibit healthy growth and satisfactory foliage conditions.

2. Related Sections:

a.	Section 7.401	Landscaping for Terrestrial Zone and
		Wetland Zone
b.	Section 7.401-I	Seeding

B. <u>Requirements</u>

The Contractor's responsibilities under this item consists of watering and weeding after installation as required to maintain installed plant material in a healthy and vigorous condition and to provide an acceptable growth medium, in accordance with the specifications and contract drawings throughout the three (3) year plant guarantee period.

Water all plants at least once per week between April 1 and October 31 with approximately 5 gallons per square yard (1 inch layer of water) per watering unless otherwise directed. Provide additional watering during periods of dry weather when required or when directed. Treat plants with good horticultural preventative or remedial measures to control insects, diseases, or rodents.

Weeding must occur at least once per month during the growing season. Each weeding event must be performed to the satisfaction of the Restoration Specialist and Engineer. Weeding must be performed with hand tools only. Weeds must be bagged and removed from the site.

The Contractor must submit a watering and weeding plan and maintenance schedule prior to the installation of plant material, to be approved by the Engineer or Restoration Specialist. The water associated with the irrigation of the plantings is the responsibility of the Contractor to deliver to the site by their means and methods.

The approved plan and schedule do not relieve the Contractor in any way from any aspect of the replacement of dead plant material. The Landscape

Subcontractor may alter the maintenance schedule based on weather and field conditions.

C. <u>Measurement and Payment</u>

The quantity to be measured for payment under this section must be the total number of hours necessary for one crew for the completion of the weeding and watering. The crew must consist of a minimum of two workers.

The contract price per crew hour for Weeding and Watering During Guarantee must be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.411-A. The unit price bid must include the costs for all labor, materials, equipment and incidental expenses necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

7.413 <u>TEMPORARY GOOSE EXCLUSION FENCE</u>

A. <u>Description of Work</u>

Under this Item, the Contractor must furnish, install, maintain and remove the Temporary Goose Fence according to the Contract Drawings and the direction of the Engineer.

The fence must be a minimum of five (5) feet high above existing grade and the posts must be a non-tropical hardwood. The fence must completely enclose all planted areas so as to prevent geese from entering any newly planted site.

The Contractor must repair the fence as often as is necessary throughout the guarantee period. The Contractor must remove the entire fence at the end of the maintenance period, or as directed by the Engineer.

B. <u>Submittals and Materials</u>

The Contractor must submit the following samples or the manufacturer's catalog cuts for approval ten (10) days before beginning work:

- 1. Non-tropical hardwood stakes (untreated). In salt or brackish water environments, posts must be oak
- Black Bi-oriented Utility Fence (TENAX C-Flex Pro, DF Supply Inc., Streetsboro, OH; HD Critterfence 1100, Critterfence, Chester, SC; Maximum Duty Perimeter Fence, Benner Fence Co., Allentown, PA or approved equal). The fencing must meet the following specifications:
 - a. Material: High density UV stabilized polyethylene plastic resin
 - b. Height: 60"
 - c. Weight per roll: 20 lbs
 - d. Nominal mesh opening: 1"
 - e. Tensile strength (range): 900 1,000 lbs/ft
 - f. Elongation at Break (%): 20%
 - g. 1/4" sisal or jute twine or string
 - h. 1" metallic mylar

BMP-121

- i. 1-1/2" galvanized roofing nails.
- j. 2" galvanized staples.
- k. 14" Nylon cable ties.

C. <u>Execution</u>

The goose fence must be installed by skilled laborers with proper tools and equipment for an aquatic environment within 1 day of completing each fifty (50) foot section of planting. Layout location of stakes according to the Contract Drawings. The Contractor must drive stakes so that they are level and 1' (min.) from the edge of proposed coir logs or wetland plugs. All broken or splintered stakes must be removed and replaced with new ones.

Install black bi-oriented utility fencing making sure that there is no space between the existing grade and the bottom of the fence. Fasten safety fence to stake by using 1-1/2" roofing nails. Close all gaps so that adjacent pieces of fence abut tightly together.

Attach twine or string to stakes as shown on the Contract Drawings. String must be pulled taught to reduce sagging. The string must alternate in and out of fence netting for increased stability of fence. Tie ten (10) inch strips of metallic (mylar) flagging along string every four feet. Work in one direction only. The Contractor must be responsible for removing the fence at the end of the guarantee period for the wetland plants, or at the direction of the Engineer.

D. <u>Measurement and Payment</u>

The quantity to be measured for payment under this Section must be the total number of linear feet of fence furnished, installed, maintained and accepted in accordance with the Plans and Specifications and the directions of the Engineer.

The contract price per linear foot for Goose Exclusion Fence must be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.413. The unit price per linear foot must include all labor, materials, equipment and work incidental expenses necessary or required to complete the work in accordance with the plans and specifications and to the satisfaction of the Engineer.

7.414 <u>BMP AS-BUILT PLANS</u>

A. <u>Description of Work</u>

Under this item the Contractor is to provide all labor, materials, tools and equipment necessary to complete the work described below in complete accordance with the Contract Documents and the direction of the Engineer.

B. <u>BMP As-Built Plans and Information</u>

The Contractor shall be responsible for providing a survey of final topographical features with contour lines every one (1) foot of elevation at a scale of 1" = 20'. The survey shall include all adjoining property lines. The survey shall indicate and clearly label all new reconstructed/ rehabilitated structural features which include but are not limited to the following:

- Tipping elevation of water at weir structure;
- Inlet and outlet elevation of low flow pipe;
- Inlet and outlet elevations of drain pipe;
- Permanent pool elevation;
- Bottom elevations of forebay, low flow channel and micropool;
- All pipes, headwalls, manholes, weirs, and any other structure that is part of the storm drainage system;
- Boundary fencing and survey monuments;
- Planting spreadsheet indicating zone elevation, species, and quantity planted;
- Location, size and species of all existing trees greater than six (6") caliper.

The Contractor shall submit the as-built plans with the above information included as an electronic file to the Restoration Specialist. The Contractor shall supply the surveys immediately after the completion of each BMP site to allow the Restoration Specialist time to complete the landscape survey. The Restoration Specialist shall verify the contractor's information and include his/her information along with any additional planting and natural features information on a separate sheet to the as-built plans. Paper prints of the completed as-built plans shall be provided by the Contractor to the Engineer for review.

The approved final as-built plans shall be stamped by the professional surveyor and sent as a mylar set to the NYC Department of Design and Construction for inclusion in the final complete set of project as-built plans. The final as-built BMP plans shall consist of the following three sheets per site; 1) a base map stamped by the surveyor with property lines, contours,

structures, and invert elevations, 2) a tree and shrub plan, and 3) a herbaceous planting plan. The NYCDDC shall be responsible for routing three (3) complete sets of as-built plans to the following locations:

NYCDEP Mapping and Records Division 59-17 Junction Boulevard Flushing, NY 11373-5108

NYCDEP Water and Sewer Permitting 10 Richmond Terrace Staten Island, NY 10301

NYCDEP Staten Island Bluebelt 182 Joline Avenue Staten Island, NY 10307

The Contractor shall also submit as an electronic file, AutoCAD 2017 or later and six sets of paper prints of the approved final (BMP only) as-built plans to the NYCDEP Bluebelt field office located at 182 Joline Avenue, Staten Island, NY 10307, and 3 sets of paper prints to the NYCDEP Staten Island Bluebelt main office located at 59-17 Junction Boulevard, 12th Floor, High Rise, Flushing, NY 11373-5108.

All CAD datasets or other geospatial files must be submitted with a horizontal datum in the 1983 North American Datum, State Plane New York, Long Island, in feet. The full specs for this datum are detailed below:

NAD_1983_StatePlane_New_York_Long_Island_FIPS_3104_Feet WKID: 2263 Authority: EPSG

Geographic Coordinate System: GCS_North_American_1983 Angular Unit: Degree (0.0174532925199433) Prime Meridian: Greenwich (0.0) Datum: D_North_American_1983 Spheroid: GRS_1980 Semimajor Axis: 6378137.0

Semiminor Axis: 6356752.314140356 Inverse Flattening: 298.257222101

The vertical datum for reporting elevation values must be explicitly stated. NAVD88 is preferred, but vertical values may be reported in a local datum in accordance with New York City survey precedence.

C. <u>No Separate Payment</u>

No separate payment shall be made for this work of the specification. All costs shall be included in the various Contract Items of this Contract.

7.415 <u>VINE AND INVASIVE PLANT REMOVAL</u>

A. <u>Description of Work</u>

Under this item, the Contractor shall remove all vines and invasive plants at Staten Island Bluebelt properties throughout the BMP project area and watershed and as directed by the Engineer.

B. General Removal Methods

All vine and invasive plant material shall be removed by hand. The removal of these plant and materials shall be from existing trees, fence lines, utility poles and lines, adjacent structures, BMP sites, and other areas within the watershed. All vines and invasive plant material removed shall be disposed of by the Contractor at the Contractor's own expense.

The Contractor shall carefully protect all trees, shrubs and other plant material and structures during the vine and invasive plant removal operation. Any repair to damaged trees, fence, shrubs, and other plants and structures resulting from the vine and invasive plant removal operation will be repaired by the Contract at the Contractor's own expense.

The removal of vines and invasive plants under this item is to be done in conjunction with the work covered under Specification Section 7.408B, Herbicide Application.

The vines and invasive plants to be removed will be identified by the Engineer and restoration specialist and clearly marked prior to removal. No trees are to be removed under this item.

The plant species to be eradicated primarily include, but shall not be limited to the following, and shall include additional species at the direction of the engineer:

Japanese Knotweed (Polygonum cuspidatum) Mutiflora Rose (Rosa mutiflora) Purple Loosestrife (Lythrum salacaria) Oriental Bittersweet (Celastrus orbiculatus) Black Locust (Robinia psuedoacacia) Japanese Honeysuckle (Lonicera japonica) Common Reed (Phragmites australis) Mile-A-Minute Vine (Polygonum perfoliatum) Mugwort (Artemisia vulgaris) Common Ragweed (Ambrosia artemisifolia) Giant Ragweed (Ambrosia trifida)

English Ivy (Hedera helix) Japanese Stiltgrass (Microstegium vimineum) Porcelain Berry (Ampelopsis brevipedunculata) Burning Bush (Euonymus alatus) Russian Olive (*Elaeagnus angustifolia*) Giant Hogweed (Heracleum mantegazzianum) Tree of Heaven (Ailanthus altissima) White Mulberry (Morus alba) Norway Maple (Acer platanoides)

C.

Measurement and Payment

The quantity to be measured for payment under this section shall be the total number of crewday (shifts) necessary for completion of Vines and Invasive Plant Removal. A crewday (shift) is defined as one period from 8AM – 4PM, including lunch and breaks. The crew shall consist of three gardeners and one supervisor. The crew shall also consist of the following equipment:

One (1) truck (10-15 cubic yard enclosed hydraulic dump body) Manual Pole Saw (2) Full Size Lopping shears Tool Kit including files for minor mechanical repairs Dirt Shovel Sweep Type Broom Rake Hand Saw First Aid Kit Ear and Eye Protectors Hand Saw with Scabbard (2) Axe Broom Hard Hats Safety cones **Red Flags Danger Signs**

The contract price per unit for Invasive Vine and Plant Removal shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.415. The unit price bid shall include the costs for all labor, materials, equipment, vehicles and incidental expenses necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

7.419 <u>TREE AND ROOT PRUNING</u>

A. <u>Description of Work</u>

Under this Section, the Contractor shall provide all labor, materials, equipment, insurance, licenses, permits and payments of fees, tolls and taxes, together with all work required for general branch and root pruning, including the removal of all debris generated during the completion of this work.

All work shall be performed as directed by DEP's on-site authorized Representative. The work to be performed by the Contractor shall be done only when and where the Contractor is ordered to perform such work by DEP. Tree pruning in natural areas may have restricted or no vehicle access and in such cases trees will have to be climbed and roped by experienced personnel.

Skilled persons directly employed and supervised by the Contractor shall perform all work. All work shall be performed in a professional manner and in accordance with the most current revisions of the American National Standards for Tree Care Operations: Tree, Shrub, and other Woody Plant Maintenance and Standard Practices A-300-2001 and the American National Standards for Arboricultural Operations: Pruning, Repairing, Maintaining, and Removing Trees, and Cutting Brush – Safety Requirements Z-133.1-2000, published by the American National Standards Institute (ANSI).

Contractors shall have in their possession, or available to them, the following materials: trucks, aerial lifts, chippers, hand tools, climbing equipment, and other equipment and supplies required to perform this work. The Contractor shall also have current certification to perform the work, as specified below.

The description of the work is for general information only. It is not to be construed as an exclusive definition of the quantity or type of work that will be required.

B. Health and Safety

All work shall follow all arboricultural standards, as specified herein, and all City, State and Federal regulations as applicable. The Contractor is responsible for the preparation and submission of a Health and Safety Plan to DDC. The HASP must be approved by DDC before any of the work begins. In accordance with the HASP, the Contractor shall perform the work with all due care, taking precautions against injury to persons and damage

to property, and against interference with traffic or abutting property. The Contractor shall at his/her expense erect barricades, display lights or signs, give warnings and adopt and enforce rules and regulations as may be necessary or required by DDC or by authorities having jurisdiction to safeguard the public.

The Contractor shall furnish a twenty-four (24) hour telephone number of three (3) responsible members or employees of the Contractor's firm who can be reached in times of emergency resulting out of or in connection with the work to be performed.

C. Personnel and Equipment

All work shall be performed by skilled persons directly employed and supervised by the Contractor.

- 1. <u>Contractor's Certification and Experience</u>
 - a. At least one employee on each crew working within ten (10) feet of energized conductors must be a qualified line clearance tree trimmer.
 - b. The pruning shall be performed under the supervision of an "ARBORIST" from the International Society of Arboriculture (I.S.A.) or an equivalent certification or experience.
 - c. The Contractor shall be certified by the New York State Department of Agriculture and Markets to perform work within Asian Longhorned Beetle Quarantine Zones.

2. <u>Contractor's Equipment List</u>

- a. The Contractor shall furnish a list of proposed vehicles and equipment to be used in the completion of this work at the time of the pre-construction meeting.
- b. All equipment shall be in good working condition. The Contractor shall remove and replace any equipment in unsatisfactory condition or unsuitable for the required work as deemed by DDC.
- c. To ensure that out of service equipment be returned to service in two (2) days or less, the Contractor shall provide at all times a 24 hour repair or replacement center with maximum response time of two (2) hours.

BMP-129

- d. Unacceptable equipment or lack of equipment shall be grounds for disqualification of the Contractor.
- e. All required documentation and information must be provided at the time of the pre-construction meeting unless otherwise agreed to by DDC.

D. <u>Tree Pruning Method</u>

The Contractor shall prune trees in accordance with accepted aboricultural practices, to the satisfaction of and in the order directed by DEP's authorized Representative.

At each marked tree location, the Contractor shall perform some or all of the following pruning work as directed by DEP's authorized Representative.

- 1. Crown Cleaning to remove dead, broken, crossing, rubbing, damaged (storm or otherwise), fungus and insect infected branches, dead or decaying stubs, suckers and all other undesirable growth. Live growth should not be removed unnecessarily. Clean pruning will be performed on all branches 1 inch in diameter and larger. Injured areas where healing is not taking place properly may be bark traced in accordance with accepted arboricultural practices.
- 2. Crown Thinning to improve the penetration of street lighting. Proper thinning retains crown shape and should provide an even distribution of foliage throughout the crown. The percentage of live foliage removed must not exceed 15%. Only remove branches ¹/₄ to 1 inch in diameter. Excessive limb removal on the lower two-thirds of any branch or stem (lion tailing) is not acceptable.
- 3. Crown Raising to provide a vertical and horizontal clearance from vehicles, pedestrians, signs, buildings, lights, and transmission lines. In lifting bottom branches of trees for under clearance, care should be given to preserve the symmetrical appearance of the tree. This work may involve both the removal and shortening of limbs. Branches greater than half of the trunk diameter should not be removed. Unless otherwise directed, the canopy should be raised to 15 feet over roads, 8 feet over sidewalks and pruned to give 6 feet clearance from buildings.
- 4. Root pruning shall be done when roots are damaged ruing construction or excavation.

BMP-130

All pruning shall be completed to current best practice for either branch removal cuts (thinning cuts) or reduction cuts (lateral cuts or drop crotch cuts). Reduction cuts (lateral cuts or drop crotch cuts) should be to a lateral branch at least one-third to one-half the diameter of the removed portion. Do not leave stubs. When removing a dead branch, the final cut should be made just outside the collar of living tissue. All limbs one inch (1") in diameter (the size of a quarter) and over must be pre-cut to prevent splitting and/or bark rips. No more than 25 percent of the live crown of a single tree should be removed.

The Contractor shall carefully protect against damage to all existing trees, plants, other growths and other features to remain. He/she shall be liable for any and all damage to such trees, plants, other growths, real property and vehicles. The Contractor shall replace any injured trees as per the instructions of DEP's authorized Representative.

All trees which require maintenance due to root and trunk damage shall be guaranteed for one year against death. If during this time, said trees die due to root and trunk damage, they shall be removed and replaced according to Department of Parks and Recreation removal and tree planting specifications.

The Contractor shall lower any branch that would injure the tree or other property when falling using ropes.

In the case of trees with Dutch Elm Disease, or as directed by DEP's authorized Representative, the Contractor shall disinfect all tools between use on other trees with alcohol or bleach, due to the danger of transmitting the disease on tools. All tools shall be disinfected between each use on each tree.

In the case of locations with restricted access, parked cars or where designated trees taller than the working height of a bucket, trees shall be pruned using ropes and saddles. The use of hydraulic limb loppers, hydraulic saws or climbing spikes is not acceptable. Use of any such prohibited equipment will be grounds for default proceedings.

Working Hours

All work shall be performed during the five- (5) day, forty- (40) hour week, from Monday to Friday, inclusive between the hours of 8:00 A.M. and 4:00 P.M., except for legal holidays or unless otherwise directed by DDC. The Contractor is expected to work in rain and adverse weather, unless otherwise approved by DDC. No work shall commence on streets adjacent

to schools prior to 9:00 A.M. or after 2:00 P.M., when school is in session. The Contractor's employees shall wear identification, approved by the Project Manager, at all times while performing this work.

Work Area

All work areas shall be kept in such a manner to cause as little inconvenience as possible to the general public and adjacent property owners. When it is necessary to close pedestrian walks, vehicular traffic lanes or private driveways, the Contractor shall provide personnel barricades, warning signs, cones, flags or other means required by governing rules and ordinances.

Should work require the Contractor to place equipment and/or personnel on private property, the Contractor shall obtain the property owners' permission in writing and shall notify DEP prior to the performance of any work. The Contractor shall develop a permission/indemnification form to be used for this purpose. Sites may be designated as temporary debris staging areas at the sole discretion of DEP.

External Situations

The Contractor shall appropriately address external influences, including encounters with rats, hornets, wasps, yellow jackets or other animals and insects that could interfere with tree pruning work. The Contractor shall remove all signs, boards, hoops, bags, guide wires, tree grates, tree guards, fences, poles or other foreign objects. The Contractor is responsible for addressing and solving these problems at no additional cost to the City.

E. <u>Debris Disposal</u>

The Contractor shall remove all debris generated during the course of a day from the contract site no later than the completion of that day's work.

The Contractor must obtain written approval from DEP's site representative to store or spread clean chips on City property within the borough at designated locations.

F. Plant Pest Control Requirements

Contractors shall comply with Federal and State Department of Agriculture regulations for plant pest control. In general, State Department of Agriculture regulations require contractors operating in infested areas to thoroughly clean all equipment units before moving to non-infested areas.

BMP-132

The Contractor and/or subcontractors shall be certified by the New York State Department of Agriculture & Markets to perform work within the Asian Longhorned Beetle Quarantine Zone. The Contractor must review and abide by the description of the quarantine and compliance agreements as presented in the publication entitled Part 139 of the New York State, Department of Agriculture & Markets law. Full information can be obtained from Federal and State Pest Control personnel. Quarantine areas, for the purpose of this contract shall be defined as all five Boroughs of New York City.

The Contractor shall also be responsible for complying with all state and federal requirements for infestations by the Emerald Ash Borer, including but not limited to those by the New York State Department of Agriculture and Markets.

G. <u>Contractor's Representative</u>

At the discretion of DEP's Representative, the Contractor or a DDC representative must be present at the work site during all times work is being performed. While this work is being performed, a Supervisor or employee of the Contractor with equivalent authority who is not a member of the work crew(s) shall be present to properly direct and deploy the work crew(s) in completing the listed work. The foregoing provision shall be complied with irrespective of whether work is being performed by the Contractor or his sub-contractor's forces. The Contractor's representative shall maintain daily communication with DEP's Representative.

H. Inspection

DEP shall conduct an inspection of all work to ensure compliance with specifications. DEP's Representative has final discretion for approving all work for payment. No partial payments will be made for incomplete of unsatisfactory work. After the inspection is completed and the Contractor is notified in writing by DEP, the Contractor has two (2) weeks from the date of notification to complete any incomplete or unsatisfactory work.

DDC reserves the right to hold/reject the invoice if there is any incomplete or unsatisfactory work outstanding. The City will not pay any interest on the invoices that are held due to incomplete or unsatisfactory performance of the Contractor.

I. <u>Completion</u>

DEP's Representative will supply the Contractor with a list of trees where pruning is to be performed. DEP's Representative shall have the right to add

or delete any locations from the list. In general, the Contractor shall mobilize his/her crews within five (5) working days from the issuance of the list.

J. <u>Measurement and Payment</u>

The quantity to be measured for payment under this section shall be the total number of crewday (shifts) necessary for completion of general tree pruning, for eight (8) consecutive hours of work performed on weekdays between the hours of 8 a.m. and 4 p.m. All mobilization and incidental costs, including the disposal of wood chips, are included in the prices submitted by the Contractor. The contract price per shift for Tree and Root Pruning shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.419.

7.500 SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

Under soil erosion and sedimentation control work, the Contractor must provide all labor, materials, tools and equipment necessary to complete the execution of the work in complete accordance with the Specifications and all Contract Drawings. All Soil Erosion and Sedimentation Control work must be done in conformance with and subject to the renewed State Pollutant Discharge Elimination System (SPDES) General Permits for Discharges Stormwater from Construction Activity, GP-0-15-002, NYCDOT Standard Highway Specifications Section 9.30, and the latest edition of the New York State Standards and Specifications for Erosion and Sediment Control, 2016, published by the New York State Department of Environmental Conservation, including, but not limited to, the following methods of erosion and sedimentation control.

- 1. Slopes left exposed will, within 30 working days of completion of any phase of grading, be planted or otherwise provided with ground cover device, or structures sufficient to restrain erosion.
- 2. A ground cover sufficient to restrain erosion must be planted or otherwise provided within 15 working days on that portion of the tract (disturbed area) upon which further active construction is not being undertaken.

The Contractor must submit for approval by the Engineer and NYSDEC, a written Erosion and Sedimentation Control Plan, prepared by a Certified Professional in Erosion and Sediment Control (CPESC), who is a Professional Engineer (P.E.) or under the supervision of a P.E. The Erosion and Sediment Control Plan must be signed and sealed by that CPESC and/or the supervising P.E. The Plan must comply with all conditions of the applicable freshwater wetland permit issued by NYSDEC.

The Erosion and Sedimentation Control Plan must conform to the guidelines as set forth in the latest edition of the New York State Standards and Specifications for Erosion and Sediment Control, 2016 and the Contractor must implement the followings:

- No stockpiling of excavated material would be allowed in a manner or location that would permit erosion and its subsequent sedimentation in wetlands or other natural areas.
- No storage of soil must be permitted within the Contract limits. Soil is deemed to be for this requirement any sediment including material such as topsoil fill, sand, any excavated material, boulders, stones, cold patch, etc.

- Storm sewers will be installed in a sequence and manner that reduces the time during which the tops of excavated areas would be exposed and vulnerable to erosion.
- At the end of each day's work, the street where sewers are being installed will be cleaned and swept to reduce the amount of soil that could potentially impact downstream areas as sediment. The Contractor must be required to have a street sweeper on the site.
- Use truck tracking pads at the construction access locations to remove sediment from the tires of the trucks and other construction equipment prior to driving on the adjacent streets.
- Utilize sediment basins, sediment traps and/or sediment filters in the erosion control plan to capture sediment form run-off and from water produced by dewatering operations.
- Use portable sediment tanks to remove sediment from water generated by dewatering operations. All water from dewatering must be treated before discharge into any surface water bodies, unless the turbidity of the effluent is less than the ambient level of the receiving water body as measured by the turbidity meter in standard units (i.e. NTU's).
- The Contractor must supply all portable equipment.
- Use construction limiting fence, and silt fence as shown on Contract Drawings, unless otherwise directed by the Engineer.
- Schedule work in wet areas, such as the mitigation site, during relatively dry summer months.
- Employ water diversions to direct the stream away from the area being worked on, so as to create drier conditions for in-stream work.
- Use temporary pumping sump to control water level at site.
- Prior to the start of construction activities, such as sewer installation, inspect all erosion control measures and continually monitor them, especially after each storm event.
- If the Contractor uses dewatering methods which produce effluent discharges, the Contractor must monitor each discharge effluent and receiving water body. Discharges must not cause substantial visible

contrast to the natural condition in any receiving water body. A meter which records turbidity in standard units (i.e. NTUs) must be utilized to establish ambient conditions in each water prior to discharge. If any monitored turbidity level exceeds the ambient level of the receiving water body, the Contractor must insure (e.g., by reducing the flow rate or otherwise adjusting the dewatering system) that no substantial visible contrast to the natural condition in the receiving water body occurs. The action(s) taken, or the decision not to take any action, must be recorded in the monitors log.

Measurement and payment for Erosion and Sedimentation Control shall be in accordance with NYCDOT Standard Highway Specifications Section 9.30. The Contractor will not receive any separate payment for the preparation of the Erosion and Sedimentation Control Plan. Installation of the Erosion and Sedimentation features and maintenance of them will have no separate payment and shall paid for as identified in NYCDOT Standard Highway Specifications Section 9.30.

The work must include items of work specified under the following sections:

Section Number	Title
7.501 7.502 7.504-A 7.506 7.509-A 7.510	Maintenance of Erosion Control Measures Construction Limit Fence Silt Fence Sediment Trap with Filter Stabilized Construction Entrance Portable Sediment Tank
7.512	Dirtbag

7.501 <u>MAINTENANCE OF EROSION CONTROL MEASURES</u>

Maintenance/repair of the erosion and sediment control measures must be performed by the Contractor only as directed by the Engineer.

When, in the judgment of the Engineer and DDC Construction Monitor, the soil erosion control measures have deteriorated to a point of not functioning adequately because of storm events, the Contractor must be notified to make the necessary repairs.

If the Engineer deems that the erosion control device was not adequately installed in the first place, repair of such a device must be the sole responsibility of the Contractor.

Damage to the erosion control measures caused by the construction activity of the Contractor is the responsibility of the Contractor. If the Engineer determines that the damage is the result of the Contractor's construction activity, then the Engineer must order that the devices are repaired. The Contractor must make the repairs at its own expense.

In the event that the erosion control measures are damaged as a result of vandalism by the general public, the Contractor must notify its insurance company and put forth a claim for remuneration to the said damage.

No separate payment will be made for this work of the specification. All costs must be included in the various Contract Items of this Contract.

7.502 <u>CONSTRUCTION LIMIT FENCE</u>

A. <u>Description of Work</u>

The Contractor must furnish all materials, labor, and equipment necessary to install the construction limit fence specified herein and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job. The construction limit fence is used to mark the limit of the construction activity and to protect the adjacent areas.

Prior to the start of work, Contractor must submit construction limit fence in accordance with the materials specified herein and the Contract Drawings for the approval of the Engineer. The Contractor must have written approval from the Engineer prior to installation.

Upon furnishing and installing the above sedimentation and erosion control device but prior to commencing any other work on-site, the Contractor must notify the Engineer and arrange for an on-site inspection.

The construction limit fence must be maintained in good condition and repaired as necessary by the Contractor during the construction and postconstruction/site stabilization phases as directed by the Engineer.

B. <u>Materials and Methods</u>

<u>Construction Limit Fence</u>: The construction limit fence must be high visibility orange construction fence with a minimum height of four (4) feet. The fence must be constructed of polyethylene fabric fastened to vertical line posts.

Fabric must be a high density polyethylene grid tightly secured to wood posts. The fabric must be securely fastened to vertical line posts by means of ties and spaced not more than 12 inches apart on rails and not more than 14 inches apart on line posts.

The construction limit fence must be located where indicated on the Contract Drawings. The fence must be adjusted to avoid interference with trees and to maintain access to houses.

Line posts must be conventional metal "T" or "U" post and must be spaced not more than 6 feet on centers. Posts must be securely set in the ground. Line posts must extend at least 2 feet below finished grade. Post locations must be adjusted to avoid tree roots as appropriate.

C. <u>Maintenance</u>

The construction limit fences must be inspected periodically (at least once per week), or as directed by the Engineer. Any required repairs must be made immediately.

D. <u>Measurement and Payment</u>

The quantity to be measured for payment under this Section must be the total number of linear feet of construction limit fence furnished, installed and maintained in accordance with the Plans and Specifications and the directions of the Engineer.

The contract price per linear foot for Construction Limit Fence must be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.502. The unit price per linear foot must include all labor, materials, equipment and work incidental expenses necessary or required to complete the work in accordance with the plans and specifications and to the satisfaction of the Engineer.

7.504-A <u>SILT FENCE</u>

A. <u>Description of Work</u>

The Contractor must furnish all materials, labor, and equipment necessary to construct silt fence as specified in NYCDOT Standard Highway Specifications Section 9.30 – Storm Water Pollution Preventions (Appendix B) and as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

Prior to the start of work, Contractor must submit silt fence in accordance with the materials specified in Section 9.30 and the Contract Drawings for the approval of the Engineer. The Contractor must have written approval from the Engineer prior to installation.

B. Measurement and Payment

If a Stormwater Pollution Prevention Plan (SWPPP) is required in the Contract, the contract price for silt fence must be included in the lump sum price bid under Item number 9.30 of the NYCDOT Standard Highway Specifications.

7.506 <u>SEDIMENT TRAP WITH FILTER</u>

A. <u>Description of Work</u>

The Contractor must furnish all materials, labor, and equipment necessary to construct the Sediment Trap as specified in NYCDOT Standard Highway Specifications Section 9.30 – Storm Water Pollution Preventions (Appendix C) and as shown on the Contract Drawings.

Prior to the start of work, Contractor must submit sediment trap in accordance with the materials specified in Section 9.30 and the Contract Drawings for the approval of the Engineer. The Contractor must have written approval from the Engineer prior to installation.

B. <u>Measurement and Payment</u>

If a Stormwater Pollution Prevention Plan (SWPPP) is required in the Contract, the contract price for sediment traps with filters must be included in the lump sum price bid under NYCDOT Standard Highway Specifications Section 9.30 – Storm Water Pollution Preventions.

7.509-A STABILIZED CONSTRUCTION ENTRANCE

A. <u>Description of Work</u>

The Contractor must furnish all materials, labor, and equipment necessary to construct the stabilized construction entrance specified herein and within the limits as shown on the Contract Drawings, including all incidental and appurtenant work required for a complete job.

Prior to the start of work, Contractor must submit stabilized construction entrance materials in accordance with the materials specified herein and the Contract Drawings for the approval of the Engineer. The Contractor must have written approval from the Engineer prior to installation.

Upon furnishing and installing the stabilized construction entrance but prior to commencing any other work on-site, the Contractor must notify the Engineer and arrange for an on-site inspection.

The entrance must be maintained in good condition and repaired as necessary by the Contractor during the construction phases as directed by the Engineer.

B. <u>Materials and Methods</u>

- 1. The entrance areas must be cleared and stripped of all vegetation, roots and other objectionable material prior to installation of the access way as specified.
- 2. Provide surface drainage and divert excess runoff to stabilized areas as required and as directed by the Engineer.
- 3. Rock use NYSDOT Size No. 3 coarse aggregate.
- 4. Thickness not less than six (6) inches for rock.
- 5. Width must be twenty-four (24) feet minimum.
- 6. Filter cloth must be placed over the entire area prior to placing of stone. Filter cloth must be as specified below.

Filter cloth underliner must be suitable for heavy duty construction traffic and have the following minimum properties:

Grab tensile strength (ASTM D5034)	220 lbs.
Elongation at failure (ASTM D5034)	60%
Mullen Burst Strength (ASTM D3786)	430lbs
Puncture Strength (ASTM D751)	125 lbs.
Equivalent opening size	40-80 mm

Filter cloth must be TenCate Mirafi 600X, Beltech 315, TerraTexHD or approved equal.

- 7. Surface water All surface water flowing or diverted toward construction entrances must be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
- 8. Maintenance the entrance must be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
- 9. When truck washing is required, it must be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- 10. Periodic inspection and needed maintenance must be provided after each rain.
- 11. After completion of the project, the stabilized construction entrance must be removed and regraded to its original condition. Prior to grading and planting, the area must be tilled to lessen the compaction of the soils.

C. <u>Maintenance</u>

- 1. Maintenance of the stabilized construction entrance will include periodic inspection of the surface condition. Top dress with new gravel as needed. Any areas producing sediment should be treated immediately.
- 2. After completion of the project, the stabilized construction entrance must be removed and the areas regraded to their original elevations. Prior to seeding and planting, the areas must be tilled to lessen the compaction of the soils.
- 3. For those stabilized construction entrances that are in the beds of accessways, the rock can stay in place for use in accessways.

D. <u>Measurement and Payment</u>

If a Stormwater Pollution Prevention Plan (SWPPP) is required in the Contract, the contract price for the stabilized construction entrance must be included in the lump sum price bid under Item number 9.30 of the NYCDOT Standard Highway Specifications.

7.510 PORTABLE SEDIMENT TANK

A. <u>Description of Work</u>

The Contractor must furnish all materials, labor and equipment necessary to install the portable sediment tank as specified in NYCDOT Standard Highway Specifications Section 9.30 – Storm Water Pollution Preventions (Appendix E) and as shown on the Contract Drawings.

Prior to the start of work, Contractor must submit portable sediment tank in accordance with the materials specified in Section 9.30 and the Contract Drawings for the approval of the Engineer. The Contractor must have written approval from the Engineer prior to installation.

B. <u>Measurement and Payment</u>

If a Stormwater Pollution Prevention Plan (SWPPP) is required in the Contract, the contract price for the portable sediment tank must be included in the lump sum price bid under Item number 9.30 of the NYCDOT Standard Highway Specifications.

7.512 <u>DIRTBAG</u>

A. <u>Description of Work</u>

The Contractor must furnish all materials, labor and equipment necessary to install the Dirtbags specified herein and as shown on the Contract Drawings.

Prior to the start of work, Contractor must submit dirtbag in accordance with the materials specified herein and the Contract Drawings for the approval of the Engineer. The Contractor must have written approval from the Engineer prior to installation.

Dirtbag is a fabric bag through which sediment laden water is pumped to trap and retain sediment. The Dirtbag is available from Erosion Control Technologies, Inc.; ACF Environmental; Dandy Products Inc. (dewatering bag); GEI Works or approved equal. The purpose of the Dirtbag is to prevent the silting of wetlands by trapping and retaining sediment prior to pumping the water to drainage ways, surrounding properties, and storm sewers.

B. Location

The Dirtbag must be added to the portable sediment tank at the tanks discharge point. The Dirtbag can either be placed within the sediment trap or sediment basin near the inlet so that effluent from the bag flows into the trap or basin. This will serve to reduce the amount of sediment that enters the trap/basin, and provide for effective collection and disposal of sediment.

C. <u>Specifications</u>

Properties	Test Method	Units	Woven 2016	Nonw	oven	
				<u>4551</u>	<u>4553</u>	<u>4555</u>
Weight	ASTM D-3776	oz./yd	8	6	8	10
Grab Tensile	ASTM D-4632	lbs.	300	150	200	270
Puncture	ASTM D-4833	lbs.	120	90	130	150
FlowRate	ASTM D-4491	Gal/Min/ft ²	40	130	80	70
Permitivity	ASTM D-4491	sec ⁻¹	0.55	1.9	1.5	1.3
UV Resistance	ASTM D-4355	%	80	70	70	80

D. <u>Methods/Maintenance/Disposal</u>

The flow pumped to the dirtbag should not exceed a rate of 750 gallons per minute, or as directed by the engineer. The Contractor is responsible for evaluating the pumping rates and sizing the dirtbags or number of dirtbags accordingly.

Dirtbags must be replaced when they observed to be half full or as directed by the engineer.

The Contractor must be responsible for the disposal of the Dirtbag off-site.

E. <u>Measurement and Payment</u>

If a Stormwater Pollution Prevention Plan (SWPPP) is required in the Contract, the contract price for Dirtbags must be included in the lump sum price bid under Item number 9.30 of the NYCDOT Standard Highway Specifications.

7.600 <u>PERIMETER SITE SECURITY/ACCESS CONTROL MEASURES –</u> <u>WORK INCLUDED</u>

Under Perimeter Site Security and Access Control Measures, the Contractor must provide all labor, material, tools and equipment necessary to complete the execution of the work in complete accordance with the Specifications and all Contract Drawings. The work must include items of work specified under the following sections.

Section Number	Title
7.601-B	Galvanized Steel "W" Beam Guide Rail and Guide Rail Gate
7.603	Fixed and Removable Steel Pipe Bollards
7.604	Black Chain Link Fence
7.605	Sign Installation on Steel Posts
7.606	Permanent Maintenance Accessway
7.608	Survey Bollards and Survey Monuments

7.601-B <u>GALVANIZED STEEL "W" BEAM GUIDE RAIL AND GUIDE RAIL</u> <u>GATE</u>

A. <u>Description of Work</u>

Under this item, the Contractor shall furnish and install galvanized steel W beam guide rail in accordance with the plans, specifications and directions of the Engineer. For galvanized steel W beam guide rail details refer to the New York State Department of Transportation (NYSDOT) standard sheet 606-07.

The Contractor shall verify in the field the locations and quantities of new galvanized W beam guide rail to be installed as well as any other pertinent information regarding existing underground utilities, and shall mark in the field all existing subsurface utilities within the area of installation.

B. <u>Materials</u>

- a. <u>Guide Rail</u>: Guide rail shall be "W" beam type, meeting NYSDOT specifications 710-14 and 710-20.
- b. <u>Detail</u>: Materials shall conform to NYSDOT sheet 606-07.
- c. <u>Gate:</u> The gate shall be a swing type made from No. 12 gauge galvanized steel with a welded $\frac{1}{2}$ " center braces at the mid span and at the end of the gate. The gate shall be 12' 0" in length. The gate shall swing outwards and have two (2) heavy duty steel hinges each with axial capacity greater than 1000 lb and a radial capacity greater than 1500 lb. The hinges shall be welded to $\frac{1}{2}$ " galvanized angle.

The gate is also to have a steel hasp that secures to a steel welded loop on the post. Slot in hasp shall be oversized to allow for misalignment.

One (1) heavy duty steel gate caster with a six inch (minimum) wheel shall be furnished for each gate. The gate caster shall be the Polyurethane Gate Caster as manufactured by Caster City of Las Vegas, Nevada or approved equal. The caster shall be spring loaded and have a minimum spring deflection of 0.75 inches. The load capacity of the caster shall be a minimum of 700 lb. The non-metal wheel shall be on a swivel and have a capacity equal to or greater than that of the selected caster. The caster shall be bolted with 3/8" stainless steel bolts (ASTM F593) and nuts (ASTM F594) onto a vertical steel beam that is fastened to the "W"- beam. The mounted caster shall be positioned such that the spring compresses as the

caster moves up to the high point of the gate's swing path.

Four (4) padlocks shall be furnished for each gate. The padlocks shall be American No. 5571 as manufactured by American Lock Company of Crete, Illinois (871-361-1040) or approved equal. All padlocks shall be keyed alike with two (2) inch width by three-quarter (3/4) inch thick brass body, maximum security, five (5) pin tumblers with hardened alloy steel chrome plated shackle no less than three-eighths (3/8) inch diameter and two (2) inch clearance (elongated shackle). The locks shall be keyed for NYC Fire Department No. 1620 keys. The Contractor shall furnish two (2) keys for each padlock.

C. <u>Shop Drawings</u>

The Contractor shall prepare and submit shop drawings to the Engineer for approval. No installation work shall begin until said approval has been obtained. Drawings shall show the spacing of posts, all necessary marking and dimensioning, and the details of fabrication and geometry of the special rail elements.

The Contractor shall be responsible for the proper fit of all components and completed installations.

D. <u>Site Preparation</u>

The area shall be cleaned and grubbed of all weeds and plant material under 6" in caliper only as necessary to install the new work by the Contractor. Wherever possible, trees are to remain. If the Engineer determines that plant material over 6" in caliper must be removed, the Contractor will perform this work under a separate item. If mounds of trash or dumped debris are present, the Contractor will be required to remove whatever is necessary for implementation of the new work. Precautions shall be taken by the Contractor to insure that all existing utilities and structures are safeguarded against injury. Any damage incurred shall be made good by the Contractor at no cost to the City.

E. <u>Erection</u>

Posts shall be set as shown on the plans or as directed by the Engineer, true to line and grade. The sections shall be erected in such a manner as to produce a smooth, continuous rail with the top about 29 inches above finished grade. Lap splices shall be lapped in the direction of traffic. Bolts shall be drawn tight and shall extend 3 to 2 inch beyond the nuts unless otherwise permitted.

Vertical Obstructions: The guide rail shall be interrupted for all vertical obstructions, including trees, clumps of trees, utility poles, fire hydrants and any other elements as determined by the Engineer. The Contractor shall allow a 1'-0" space on either side of the vertical element from the end of the appropriate terminal section.

The beams shall be spliced at or near each post by lapping or by butt joints with suitable splice plates allowing one-eighth (1/8) inch for change in temperature. Supporting posts shall be spaced not greater than twelve feetsix inches (12'-6") center to center. The splice plates shall make contact with the beams throughout the spliced area. Bolt holes in the beam at the post bolt and elsewhere as necessary shall be enlarged or slotted to permit expansion and contraction and to facilitate erection.

Posts shall be driven vertically plumb to the required depth in such manner and by such means as to insure no damage to the galvanized surface.

Water jetting in driving posts will not be permitted. The driving shall be accomplished with approved equipment and methods that will leave the posts in their final position, free of any distortion, burring or other damage. When posts are driven through asphalt concrete or a bituminous treated material, the Contractor shall take care to prevent damage to the paved or treated areas. Any voids caused by driving the posts shall be filled and compacted with bituminous material as approved by the Engineer.

F. Terminal Sections

Each end of every beam rail installation shall be fitted with an end section in the manner indicated on the plans. Each end section shall be made of the same material as that used in the construction of the beam rail. Where terminal section is not specified in plans, a single buffer end section shall be used.

G. <u>Concrete Anchor/Anchorage Unit</u>

Concrete anchor/anchorage unit shall be installed only as required by NYSDOT as shown on the Contract Drawings.

H. <u>Restoration</u>

Upon completion of the installation of the guide rail system components, the Contractor shall restore the area to the original state in which he/she found it. This may require the Contractor to repave, reseed and mulch all

BMP-151

areas disturbed by the guide railing installation, including the areas adjacent to the anchor unit installation.

I. <u>Measurement and Payment</u>

The quantity to be measured for payment under this section shall be the total linear feet measured along the axis of the railing, from end of cover to end of cover, furnished and installed in accordance with the plants, specifications and directed by the Engineer.

Terminal sections of various kinds, as required by the plans and approved by New York City Department of Transportation, shall be included in the linear foot price.

The contract price per linear foot for Galvanized Steel W Beam Guide Rail shall be as indicated on the BID SCHEDULE OF PRICES, Item and BMP-7.601-G. The bid price shall constitute full compensation for all labor, materials, equipment and incidental expenses necessary the work including site restoration, minor pavement restoration, hardware splice plates and other incidental work necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer, except concrete anchor. If required, the costs for all labor, materials and equipment required for the anchor shall be deemed included in the price bid under DETAILED SPECIFICATIONS FOR CONCRETE. (Anchorage unit, steel rail and posts and swing gate are considered part of the linear foot price for this item).

7.603 FIXED AND REMOVABLE STEEL PIPE BOLLARDS

A. <u>Description of Work</u>

Under this item, the Contractor shall furnish, erect and powder coat steel pipe bollard, fixed or removable in accordance with the plans, specifications and directions of the Engineer.

B. <u>Materials</u>

Steel pipe bollard shall be as manufactured by All City Play Equipment, Brooklyn, New York; Boundary Fence, Jamaica, New York; TrafficGuard Direct, Geneva, Illinois or approved equal.

All fittings and hardware shall be of the materials listed in the following schedule:

Post Caps:	Malleable iron - 3/16" thick
Drive Pins and Set Screws:	Stainless steel
<u>Flange</u> :	Pressed steel
<u>"U" Bolts</u> :	Pressed steel, extra heavy

Malleable iron castings shall be hot dipped galvanized in accordance with ASTM A153 and powder coated per this Specification.

Pressed steel fittings and appurtenances shall be powder coated and hot dipped galvanized in accordance with ASTM A123.

Posts: Posts shall be extra heavy galvanized steel pipe, 3.5" O.D. and shall conform to ASTM A120, Schedule 80 except that pipe shall be unthreaded and untested for water pressure.

Sleeves: Sleeves shall be standard weight galvanized steel pipe, 4" I.D. and shall conform to ASTM A120, Schedule 40 except pipe shall be unthreaded and untested for water pressure.

Padlocks: Four (4) padlocks shall be furnished for each removable bollard. The padlocks shall be American No. 5571 as manufactured by American Lock Company of Crete, Illinois; Yale Global-USA of Lenoir City, TN; The Wilson Bohannan Lock Company of Marion, OH; or approved equal. All padlocks shall be keyed alike with two (2) inch width by three-quarter (3/4) inch thick brass body, maximum security, five (5) pin tumblers with hardened alloy steel chrome plated shackle no less than three-eighths (3/8) inch diameter and two (2) inch clearance (elongated shackle). The locks

shall be keyed for NYC Fire Department No. 1620 keys. The Contractor shall furnish two (2) keys for each padlock.

C. <u>Erection</u>

The posts for fixed bollards shall be set in concrete footings as shown on the plans or as directed by the Engineer. Once erected, steel pipe of the fixed bollard shall be filled with average concrete. The sleeves for removable bollards shall be set in concrete footings as shown on the plans or as directed by the Engineer.

All posts and sleeves shall be set plumb and true to line and grade. Any post and sleeve not set true to line and grade shall be removed and replaced at the Contractor's expense. Bending posts to make them plumb will not be permitted.

D. <u>Powder Coating</u>

The galvanized steel pipe and fittings shall be powder coated with TGIC-Polyester.

Galvanizing shall provide an acceptable substrate for applied powder coatings. No lacquer, urethane or other coatings which would prevent proper adhesion of powder coating shall be applied to the pipe and fittings.

The powder coating shall be applied to the galvanized pipe and fittings in such a manner that the coating will not peel off. Insure surfaces to be coated are clean and dry and free of grease, dust, rust, etc. All coated parts shall first receive phosphating and chromatizing treatments to improve the adhesion of the surface coating. Color to be black unless otherwise indicated on the plans.

The TGIC-Polyester shall be applied at a film thickness of 3 to 4 mils by electrostatic spray process and bake finished per manufacturer's directions. The TGIC-Polyester shall be applied without voids, tears or cuts that reveal the substrate and shall thoroughly adhere to the metal without peeling when scratched with a pick device or knife blade point.

Laboratory Tests for TGIC-Polyester Powder Coat: At the discretion of the Engineer, a sample TGIC-Polyester powder coated bollard shall be laboratory tested for bonding of the powder coating to the metal. Test shall be the Cross Hatch test per ASTM D3359, Method B. Failure to satisfactorily pass this test shall be a basis for rejection.

Touch-up and Repair: For minor damage caused by installation or transportation, clean damaged area, then:

- 1. On damaged galvanized surfaces, apply organic zinc repair paint complying with ASTM A780, then repair powder coating per number 2 below. Galvanizing repair paint shall have 65 percent zinc by weight. Thickness of repair paint shall be not less than that required by ASTM A123.
- 2. On damaged powder coated surfaces, touch-up finish in conformance with manufacturer's recommendations. Provide touch-up such that repair is not visible from a distance of six (6) feet.

E. <u>Submissions</u>

Shop Drawings: Before the work is started, the Contractor shall submit shop drawings for approval by the Engineer.

F. Measurement and Payment

The quantity of Steel Pipe Bollard - Removable to be paid for under this item shall be the total number furnished and installed in accordance with the plans, specifications and directions of the Engineer.

The contract price for steel pipe bollard removable shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.603-B. The bid price shall include the cost for all labor, material, equipment and incidental expenses necessary to complete the work, including excavation, average concrete and powder coating, all in accordance with the plans and specifications to the satisfaction of the Engineer.

7.604 <u>BLACK CHAIN LINK FENCE</u>

A. <u>Description of Work</u>

Under this item, the Contractor shall excavate and install concrete footings and furnish, paint and erect chain link fences and gates, in accordance with the Plans and Specifications and directions of the Engineer. For Black Chain Link Fence details, refer to Contract Drawings.

The black chain link fence shall be as specified in the Contract Drawings.

B. Materials and Construction Methods

1. <u>Excavation Procedures:</u> Excavation for the concrete footings for the chain link fence posts shall be defined as the removal of earth necessary to install the concrete footings for the chain link fence in accordance with the Plans and Specifications and as directed by the Engineer.

The Contractor shall place, compact and/or dispose of any excavated material as directed by the Engineer, this includes any materials deemed suitable for re-use on site.

- a. <u>Surplus:</u> All surplus materials not suitable for backfill shall be removed from the site and properly disposed of by the Contractor at no additional cost to the City.
- b. <u>Maintenance and Draining</u>: The Contractor shall keep all excavations for concrete footings in a dry condition and shall furnish all equipment and labor required to keep the excavations free from water, ice, or snow during construction.
- c. <u>Backfill:</u> Following inspection and approval of concrete footings for the chain link fence posts, the excavated voids around these masonry footings shall be backfilled with clean, excavated material tamped and rammed into place in layers not over six (6") inches in depth.

2. <u>Concrete Footings:</u>

a. <u>Concrete:</u> Concrete footings shall be furnished and placed as shown on the Plans or as directed by the Engineer. Concrete for the footings shall conform to NYC Department of Transportation, Class B-32, Type II-A, air-entrained,

BMP-156

moderate sulphate resistant. Each batch shall contain a minimum of six (6) bags of cement per cubic yard of concrete, a maximum of 63" gallons of water per bag, and shall have a maximum three (3") slump. Each batch of concrete shall have a compressive strength of 3,000 psi. Large aggregate shall be limited to one (1").

- b. <u>Cement</u>: All cement used shall be Air Entraining Portland Cement, ASTM C175.
- c. <u>Forms:</u> The Contractor shall furnish and place forms for the concrete footings as required in order to successfully install the footings and shall remove them following curing as directed by the Engineer.
- d. <u>Curing</u>: All concrete footings shall be covered and kept moist during the curing process as directed by the Engineer.
- 3. <u>Fence Parts:</u>

All fittings, hardware and equipment shall be designed to carry one hundred (100) percent overload.

Malleable Iron castings shall be hot-dipped galvanized in accordance with ASTM A153.

Wrought iron forgings and pressed steel fittings and appurtenances shall be hot dipped galvanized in accordance with ASTM A123.

All fittings, hardware and equipment shall be of materials listed in the following schedule:

Fence Part	Material
Boulevards, Split Fittings	Malleable Iron or Pressed Steel 3/16" thick and End Clamps
Post Caps and Line Tops	Malleable Iron or Pressed
Couplings	Steel 3/16" thick
	Galvanized Steel Pipe - 1/8" thick with 1/4" Diameter Rivet
Bolts and Nuts	Galvanized Steel or Stainless Steel as indicated on plans
Tension Bars	1/4" x 3/4" Galv. Steel for 2" Mesh
Tension Bands	1/8" x 1" Pressed Steel

4. <u>Posts and Rails:</u>

Posts and Rails shall be of Type I or Type II specifications, as described below:

Type I - Posts and rails shall be standard weight galvanized steel pipe of the sizes shown on the plans and shall conform to ASTM F1083 Schedule 40. Posts and rails shall be galvanized in accordance with ASTM A123.

OR

Posts and rails shall be Type II, SS-40 steel tubing as manufactured by Allied Tube and Conduit Corp. of Harvey, Illinois, or approved equal. Tubing must conform to ASTM A569, cold rolled steel pipe and coated with a minimum of 0.9 ounces of zinc per square foot, a minimum of 15 micrograms of zinc chromate per square inch and a minimum of .3 mils cross link polyurethane acrylic exterior coating. Steel pipe supplied under this option shall be of the same outside diameter as Schedule 40 pipe and achieve a minimum yield strength of 50,000 psi.

5. <u>Fabric:</u>

Fabric shall be vinyl coated galvanized steel wire. The color of the vinyl coating shall be black.

Wire shall be of good commercial quality made in the open hearth or electric furnace and after manufacture shall have a minimum tensile strength of 78,000 psi.

Zinc for galvanized coating shall conform to ASTM B6, galvanized by the hot dipped process method, AISI, Type I, before vinyl coating. Coating shall be smooth.

Vinyl shall be polyvinyl chloride meeting the following requirements:

Specific Gravity shall be a minimum of 1.30 tested in accordance with ASTM D792.

Hardness shall have a minimum Durometer reading of A95 in accordance with ASTM D2240. Ultimate elongation shall be 275% in accordance with ASTM D412.

Tensile strength shall have a test minimum of 3,300 psi in accordance with ASTM D412.

Vinyl shall be a dense and impervious covering free of voids, having a smooth, lustrous surface without pinholes, bubbles or voids, rough or blistered surface.

- 6. <u>Thickness of Fabric:</u>
 - a. Two Inch Mesh: Uncoated wire dimension shall be 0.148 inches n diameter (9 gauge). Zinc coating shall be 0.40 ounces per square foot of wire surface. Vinyl coating shall be not less than 0.022 inches.
 - b. Ties: Tie-wire shall be three-sixteenth (3/16) inch diameter wrought aluminum alloy 1100-H16 wire. Ties shall be spaced fifteen (15) inches apart on rails and twelve (12) inches apart of posts. The ends of ties shall be wound in a telegraph twist two and one half turns.

7. <u>Gates</u>

- a. Fabrication and Materials
 - 1. All gates shall be of the swing type and shall comply with ASTM F 900.

Gate hinges shall be 180 degree heavy industrial, double clamping offset type. To hold the gate in the open or closed positions, each gate frame shall be provided with a keeper which automatically engages a gate shoe set in concrete. Gates shall have a drop latch with provision for a padlock.

Four (4) padlocks shall be furnished for each gate. The padlocks shall be American No. 5571 as manufactured by American Lock Company of Crete, Illinois (871-361-1040) or approved equal. All padlocks shall be keyed alike with two (2) inch width by three-quarter (3/4) inch thick brass body, maximum security, five (5) pin tumblers with hardened alloy steel chrome plated shackle no less than three-eighths (3/8) inch diameter and two (2) inch clearance (elongated shackle). The locks shall be keyed for NYC Fire Department No. 1620 keys.

The Contractor shall furnish two (2) keys for each padlock.

All gate frames shall have intermediate horizontal rails. Gate frames shall be of welded construction and shall be galvanized after fabrication. Single gates 6 feet wide or wider and double gates 12 feet wide or wider shall be provided with diagonal bracing in one direction, extending from top to bottom rail. The diagonal bracing shall be at least ½ inch in diameter and shall be provided with turnbuckles. The gate's fabric shall be polyvinyl chloride coated to match fence.

b. Adjustments

- 1. Gates: After repeated operation of completed installation equivalent to three days' use by normal traffic, readjust gates for optimum operation and safety.
- 2. Lubricate operating equipment and clean exposed surfaces.

8. <u>Field Installation</u>:

The posts shall be set in holes which shall have been formed in the footings as shown on the Plans or directed by the Engineer. After the posts have been set in place and properly supported to hold them in line and grade, the resulting space shall be filled with a grout consisting of one (1) part cement and two (2) parts sand.

All end and corner posts shall have a 2" diameter brace rod and turn buckle.

Chain link fabric shall be attached to line and corner posts and top, intermediate and bottom rails. Posts shall be set plumb and true to line and grade. Any post not set true to line and grade shall be removed and replaced at the Contractor's expense. Bending posts to make them plumb will not be permitted.

The Contractor shall maintain the chain link fences during the life of the contract and shall repair and replace all members that are disturbed, damaged, or destroyed from any cause at no cost to the City.

Precautions shall be taken by the Contractor to protect all utilities, structures, adjacent trees, shrubs and natural features against damage or injury. Any damage or injury incurred shall be made good by the Contractor at no extra cost to the City.

a. Bolt Installation: The ends of all bolts shall be peened after tightening. Bolts which are installed six (6) feet or less above the grade shall not protrude more than 3" beyond the nut after tightening. All rough edges resulting from the cutting of bolts to achieve this requirement shall be filed smooth to the satisfaction of the Engineer.

9. <u>Submissions:</u>

- a. Paint Substitution: A written request for paint substitution must be submitted to the Engineer. Contractor shall submit this request, along with manufacturer's data sheets for approval, a minimum of two weeks prior to the intended date of paint application. All paint substitutes must be approved in writing prior to use.
- 10. <u>Certification</u>: The Contractor shall submit at his own expense a certification from the supplier for the following:
 - a. All castings are made from malleable iron.
 - b. All hot-dipped galvanized items have met the ASTM as indicated in these Specifications.
- 11. <u>Shop Drawings</u>: Before all work in the shop is started, the Contractor shall submit shop drawings for approval by the Engineer.
- 12. <u>Shipping Lists:</u> The shipping list for the materials furnished shall be endorsed with the manufacturer's voucher certifying that the materials used comply with these specifications.
- 13. <u>Clean-up and Removals</u>: After field installation is complete, the Contractor shall remove from the work areas any excess material, debris, litter, etc. used for or remaining from the chain link fence installation.
- C. <u>Measurement and Payment</u>

The Contract price per linear foot for the Black Chain Link Fence shall be as indicated on the BID SCHEDULE OF PRICES, BMP - 7.604-8 for 8 ft fence.

For Black Chain Link Fence Gates, the Contract price per each gate furnished and installed shall be as indicated on the Bid Schedule of Prices, BMP-7.604-8G for 8-foot Black Chain Link Fence Gate. The bid price shall be a unit price per each gate furnished and installed and all other work incidental thereto in accordance with the plans and specifications to the satisfaction of the Engineer.

The unit price bid shall include the costs for all labor, material, equipment and incidental expenses necessary or required to complete the work in accordance with the plans and specifications to the satisfaction of the DEP Field Representative.

7.605 SIGN INSTALLATION ON STEEL POSTS

A. <u>Description of Work</u>

Under this item, the Contractor must provide all labor, materials, equipment, testing and incidentals required to furnish and install the temporary signs on construction limit fence and new rigid aluminum permanent Bluebelt Identification signs and Adopt-A-Bluebelt signs on steel sign posts, and furnish and deliver replacement Bluebelt Identification signs as required in this Contract and in accordance with the plans, specifications and directions of the Engineer.

B. <u>Materials and Construction Methods</u>

All steel sign posts must be rolled from material meeting ASTM A847 High Strength Low Alloy Steel Pipe and Tube, with a weathered steel finish.

The posts must be 2-3/8" round posts.

The length of each steel sign post must be 14'.

The finished posts must be machine straightened and have a smooth, uniform finish free from cracks, flaws, injurious seams, blisters, ragged, sharp and imperfect edges or other defects affecting strength, durability, or appearance.

All steel sign posts furnished under this Contract must be packed and delivered in such a manner that no injury or defacement may occur to the finished unit.

C. <u>Steel Post Installation</u>

The area for concrete footing must be excavated to the dimensions shown on the drawings. The footing must be dug with a power auger, post hole digger or as directed by the Engineer.

The steel sign post must be set and centered in the hole, to the elevation shown on the drawings which must have been previously excavated. After the post has been set and properly supported to hold it true and plumb, the hole must be filled with concrete. The concrete footing for the steel sign post must be constructed from 3,000 psi strength concrete.

The Contractor must take every precaution to safeguard against damage or injury to all existing utilities, structures, adjacent trees, shrubs and natural features to remain. Any damage or injury incurred must be remedied by the Contractor at no cost to the City and to the satisfaction of the Engineer.

BMP-163

For each post installed, one additional replacement post shall be delivered to the DEP at 182 Joline Avenue, Staten Island, NY.

D. <u>Signage Installation</u>

Following installation of the steel sign posts, the Contractor must install the rigid aluminum BMP Identification Signs on the steel sign posts in accordance with the plans and specifications and as directed by the Engineer.

Two (2) sets of replacement fasteners must be supplied to the Bluebelt Field Office located at 182 Joline Avenue, Staten Island, NY, for each sign installed.

The Contractor must remove any excess material, debris, litter, etc., used for or remaining from the installation work area.

E. <u>Furnish Temporary (During Construction) Flexible Aluminum Signs,</u> 0.020" Gauge Aluminum & Install on Construction Limit Fence

1. <u>Description of Work</u>

Under this item, signs furnished must be new aluminum, not previously used as a sign, with white vinyl sheeting. The appropriate lettering and graphics must be silk screened onto the vinyl sheeting.

The Contractor must provide all labor, materials, equipment, testing and incidentals required to furnish new signs and install the temporary (during construction) flexible aluminum signs on the construction limit fence and/or reinforced silt fence, in accordance with the plans, specifications and directions of the Engineer. The Contractor will be responsible for maintaining the signs on the fencing for as long as the adjacent street is an active construction site. In order to do this, the Contractor will replace as necessary. For each sign installed, the Contractor will supply one replacement sign to the DEP Bluebelt office located at 182 Joline Avenue. All leftover signs after the project is over will also be delivered to 182 Joline Avenue.

2. <u>Materials and Methods</u>

Signs must be made of flat, unpainted aluminum, Alloy 6063-T5, 0.020" thick. The sign dimensions must be 14" x 8-1/2". Each sign must be cut from one piece of aluminum, and must be free of wind buckle, dents, twists. The face of each sign must be substantially a

plane surface. All edges and corners must be filed or ground smooth, so that the sign must be free from sharp edges and burrs. Welded or jointed signs will not be accepted. The Contractor must install signs every fifty (50) feet on reinforced silt fence and on construction limit fence.

Signage must be as manufactured by the Walter Sign Corporation, 36-35 36th Street, Long Island City, N.Y. 11106, Telephone: (718) 784-7777, or Sign Designers of New York, Inc., 33-26 Northern Boulevard, Long Island City, N.Y., Telephone: (718) 392-0779 or approved equal.

3. <u>Cleaning Treatment:</u>

Each sign must be prepared by the manufacturer as follows:

- a. Initial cleaning of all blanks must be by complete submersion in a three percent (3%) solution of an inhibited alkaline cleaner at 160 to 180 degrees Fahrenheit for three (3) minutes, followed by a rinse with clean, cold running water. Alternatively, a grease solvent such as Naptha or Trichlorethylene may be used, when the application is in accordance with the directions of the manufacturer of the cleaner product.
- b. Secondary cleaning must follow preliminary cleaning by immersion for one (1) minute in circulating hot water at 180 degrees Fahrenheit. Each sign must then be dried by forced warm air. Alternatively, the clean sign blank may be prepared by the process conforming to military specifications MIL-C-5541, such as Alodine or approved equal. If a chemical conversion coating is employed, the coating must be free of all powder residue.
- c. Following preliminary cleaning, the sign blanks must be handled only by mechanical means or with gloved hands.
- d. All aluminum sheets must be guaranteed to maintain flatness when exposed to 340 degrees for ten (10) minutes.
- 4. <u>Vinyl Sheeting</u>

Vinyl sheeting must be either Type I, Class I, pressure sensitive adhesive or Type III, Class I, heat activated adhesive conforming to Military Specifications MIL-M-43719B.

Apply the vinyl sheeting to the treated sign in accordance with the manufacturer's specifications.

Durability of sheeting must provide for a minimum of 10 years of useful life in the climatic conditions existing in New York under normal, vertical, exterior street sign exposure when applied in accordance with the manufacturer's recommendations.

5. <u>Lettering</u>:

The signs must be inscribed by means of a silk screen process with the borders, lettering, and graphics as indicated on the Contract Drawings.

When vandal resistant inks, compatible with the vinyl sheeting, are available and are recommended by the sheeting manufacturer, these inks must be used. Vandal resistant inks must be applied in accordance with the manufacturer's specifications.

The colors must be blue and green lettering and graphics on a white baked enamel background in accordance with the Contract Drawings and to the satisfaction of the Engineer. Colors must correspond as follows: Green PMS 355 and Blue PMS 287.

Lettering must be the font styles and point sizes as represented on the Contract Drawings or approved substitute fonts and sizes.

6. <u>Sign Layout</u>

Layout of the sign must be in accordance with the Contract Drawings and to the satisfaction of the Engineer.

7. <u>Finish</u>

The finished sign must be clear coated, with a weather resistant Finishing Clear, unless the manufacturer of the sheeting recommends that the sign not be coated. The Finishing Clear must be compatible with the sheeting and applied in accordance with the specifications of the manufacturer of the vinyl sheeting. When clear coating is optional the sign must be clear coated. When the manufacturer of the sheeting recommends a vandal resistant Finishing Clear or vandal overlay, the Finishing Clear or overlay must be used and applied in accordance with the manufacturer's specifications. Vandal resistant inks will not be required when vandal resistant Finishing Clear or overlay is used.

The finished sign must be uniform in color and tone, with sharply defined edges and borders and without blemishes on the sign background that will affect sign use.

The sign surface must be readily refurbished by cleaning and clear overcoating in accordance with the manufacturer's recommendations.

8. <u>Provision of Sign Mock-Up</u>

The Contractor must provide one full-size sign as a mock-up, to the Engineer for approval, prior to production of the required number of signs. The Contractor must not begin sign production until the Engineer has given approval in writing. Any corrections required to make the mock-up in conformance with these specifications and Contract Drawings must be done at the Contractor's expense.

9. <u>Time of Performance</u>

The temporary flexible aluminum sign will be installed on the snow fencing with hay bales before sewer construction proceeds in the adjacent street or not later than fifteen (15) days after the date of the Notice to Proceed letter sent by the Engineer whichever is first.

10. Measurement and Payment

The quantity of 0.020" Gauge Aluminum Signs to be paid for under this item must be the total number of signs fabricated and installed at the designated locations or delivered to DEP, in accordance with the plans, specifications and directions of the Engineer.

The contract price per 0.020" Temporary Sign must be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.605-B. The unit price must include the costs of all labor, materials, equipment and incidental expenses necessary or required to complete the work in accordance with the plans and specifications and to the satisfaction of the Engineer.

F. <u>Furnish Permanent BMP ID</u>, Watershed ID, and Adopt-A-Bluebelt Rigid Aluminum Signs, Furnish Permanent Watershed ID Replacement Signs

1. <u>Description of Work</u>

Under this item, signs furnished must be new 0.080" gauge aluminum, not previously used as a sign, with white vinyl sheeting. The appropriate lettering and graphics must be silk screened onto the vinyl sheeting.

The Contractor must provide all labor, materials, equipment, testing and incidentals required to furnish and store new BMP Identification, Watershed Identification and Adopt-A-Bluebelt signs in accordance with the plans, specifications and directions of the Engineer. The Contractor must supply five replacement Watershed Identification signs to the DEP Bluebelt Field Office, located at 182 Joline Avenue. No Adopt-A-Bluebelt or BMP Identification replacement signs must be provided. Replacement signs must be provided to at no additional cost to the City.

2. <u>Materials and Construction Methods</u>

Signs must be made of flat, unpainted Aluminum, Alloy 6061-T6, 0.080" thick. The Adopt-A Bluebelt signs must be 24" x 38.4". The BMP ID and Watershed ID signs must be 12" x 15". Each sign must be cut from one piece of aluminum, and must be free of wind buckle, dents, and twists. The face of each sign must be substantially a plane surface. All edges and corners must be filed or ground smooth, so that the sign must be free from sharp edges and burrs. Welded or jointed signs will not be accepted. The sign blanks must be cut and drilled in accordance with the Contract Drawings. Holes must be drilled in the following manner: each rigid aluminum sign must receive a 5/16" diameter hole at the centerline of the sign 0.25" from the bottom of the sign. To permit interchangeability of signs on existing and new sign posts, the distance between drilled holes must be accurately maintained.

Signage must be as manufactured by Sign Designers of New York, Inc., 33-26 Northern Boulevard, Long Island City, N.Y., Telephone: (718) 392-0779, or Walter Sign Corporation, 36-35 36th Street, Long Island City, N.Y. 11106, Telephone: (718) 784-7777, or approved equal.

Signs must be affixed to the sign post using two center mounted sign brackets, with a 4 $\frac{1}{2}$ " sign support, as per Contract Drawings. All hexbolts must be 5/16" diameter, stainless steel material.

3. <u>Cleaning Treatment</u>

Each sign must be prepared by the manufacturer as follows:

a. Initially, clean all blanks by complete submersion in a three percent (3%) solution of an inhibited alkaline cleaner at 160 to 180 degrees Fahrenheit for three (3) minutes, followed by

a rinse with clean, cold running water. Alternatively, a grease solvent such as Naptha or Trichlorethylene may be used, when the application is in accordance with the directions of the manufacturer of the cleaner product.

- b. Secondary cleaning must follow preliminary cleaning by immersion for one (1) minute in circulating hot water at 180 degrees Fahrenheit. Each sign must then be dried by forced warm air. Alternatively, the clean sign blank may be prepared by the process conforming to military specifications MIL-C-5541, such as Alodine or approved equal. If a chemical conversion coating is employed, the coating must be free of all powder residue.
- c. Following preliminary cleaning, the sign blanks must be handled only by mechanical means or with gloved hands.
- d. All aluminum sheets must be guaranteed to maintain flatness when exposed to 340 degrees for ten (10) minutes.

4. <u>Vinyl Sheeting</u>:

- a. Vinyl sheeting must be either Type I, Class I, pressure sensitive adhesive or Type III, Class I, heat activated adhesive conforming to military specifications MIL-M-43719B.
- b. Apply the vinyl sheeting to the treated sign in accordance with the manufacturer's specifications.
- c. Durability of sheeting must provide for a minimum of 10 years of useful life in the climatic conditions existing in New York under normal, vertical, exterior street sign exposure when applied in accordance with the manufacturer's recommendations.

5. <u>Lettering</u>

- a. The signs must be inscribed by means of a silk screen process with the borders, lettering, and graphics as indicated on the Contract Drawings.
- b. When vandal resistant inks, compatible with the vinyl sheeting, are available and are recommended by the sheeting manufacturer, these inks must be used. Vandal resistant inks

must be applied in accordance with the manufacturer's specifications.

- c. For all signs, the colors must be blue and green lettering and graphics on a white baked enamel background except where indicated, in accordance with the Contract Drawings and to the satisfaction of the Engineer. Colors must correspond as follows: Green PMS 355 and Blue PMS 287.
- d. Lettering must be the font styles and point sizes as represented on the Contract Drawings or approved substitute fonts and sizes.
- 6. Sign Layout
 - a. Layout of the sign must be in accordance with the Contract Drawings and to the satisfaction of the Engineer.
- 7. <u>Finish</u>
 - a. The finished sign must be clear coated, with a weather resistant Finishing Clear, unless the manufacturer of the sheeting recommends that the sign not be coated. The Finishing Clear must be compatible with the sheeting and applied in accordance with the specifications of the manufacturer of the vinyl sheeting. When clear coating is optional the sign must be clear coated. When the manufacturer of the sheeting recommends a vandal resistant Finishing Clear or vandal overlay, the Finishing Clear or overlay must be used and applied in accordance with the manufacturer's specifications. Vandal resistant inks will not be required when vandal resistant Finishing Clear or overlay is used.
 - b. The finished sign must be uniform in color and tone, with sharply defined edges and borders and without blemishes on the sign background that will affect sign use.
 - c. The sign surface must be readily refurbished by cleaning and clear overcoating in accordance with the manufacturer's recommendations.
- 8. <u>Provision of Sign Mock-Up</u>:

The Contractor must provide one full-size sign as a mock-up, to the Engineer for approval, prior to production of the required number of signs. The Contractor must not begin sign production until the Engineer has given approval in writing. Any corrections required to

make the mock-up in conformance with these specifications and Contract Drawings must be done at the Contractor's expense.

9. <u>Delivery of Replacement and Left-Over Signs</u>

After all signs required for this project are installed, the Contractor must deliver all replacement and left-over signs to the following location:

DEP Staten Island Bluebelt Field Office 182 Joline Avenue Staten Island, New York 10307 718-668-6305

The signs must be packaged so as to prevent scratching, bending or other damage while they are being shipped and stored. DEP reserves the right to inspect and reject any damaged signs. The Contractor will supply five replacement Watershed Identification signs to the DEP Bluebelt Field Office. No BMP Identification or Adopt-A-Bluebelt replacement signs must be provided.

10. <u>Time of Performance</u>:

The Contractor must supply all the signs not later than fifteen (15) days after the date of the Notice to Proceed Letter sent by the Engineer.

11. <u>Packaging and Storage:</u>

The signs must be packaged and stored so as to facilitate their proper handling and storage until such time the Contractor can install them on the steel sign posts.

12. <u>Measurement and Payment</u>

The quantity of 0.080" Gauge Aluminum Signs to be paid for under this item must be the total number of signs, fabricated and installed on steel posts or delivered in accordance with the plans, specifications and directions of the Engineer. All extra signs and posts not installed must be delivered to the DEP Bluebelt Field office on Staten Island at no extra cost to the City.

The contract price per 0.020" Temporary Sign and 0.080" Permanent Sign furnished and delivered must be as indicated on the BID SCHEDULE OF PRICES as follows:

BMP-171

Item	Description
BMP-7.605-B	0.020" TEMPORARY SIGNS
BMP-7.605-C	0.080" PERMANENT SIGNS (BMP ID)
BMP-7.605-D15	0.080" PERMANENT SIGNS (NEW CREEK)
ВМР-7.605-Е	0.080" PERMANENT SIGNS (ADOPT A BLUEBELT)

The unit price must include the costs of all labor, materials, equipment, installation and incidental expenses necessary or required to complete the work in accordance with the plans and specifications and to the satisfaction of the Engineer.

7.606 PERMANENT MAINTENANCE ACCESSWAY

A. <u>Description of Work</u>

The Contractor must provide all labor, materials, tools and equipment necessary to complete the permanent accessways as shown in the Contract Drawings and as directed by the Engineer.

Prior to the start of work, Contractor must submit permanent accessway with concrete pavers in accordance with the materials specified herein and the Contract Drawings for the approval of the Engineer. The Contractor must have written approval from the Engineer prior to installation.

B. <u>Materials and Methods - Concrete Pavers</u>

1. <u>Pavers</u>

The Permanent Accessway must be constructed using concrete grid pavers. Unless directed by the Engineer, materials and methods must conform to ICPI Technical Specification #8. The pavers must be 23 5/8" x 15 ³/₄". They must be made in a grid-like pattern 3 1/8" in height. The Permanent Accessway edges must be secured with a concrete curb. The pavers and adjoining curb must be earthtone brown in color. The pavers must be fabricated of Portland Cement Type II or III fine and coarse aggregates (ASTM C-33) achieving a concrete strength of 5,000 psi at 28 days (ASTM C-39) and a maximum water absorption of 10 lb/ft³ (ASTM C-97). The concrete grid pavers must be manufactured by Metromont Materials Company; Grinnell Concrete Paving Stones, Inc.; Ideal Concrete Block Co.; or approved equal.

2. <u>Crushed Stone</u>

The crushed stone layer must consist of 1/2" to 1" stone, with gradation conforming to ASTM D2940.

3. <u>Sand</u>

Sand bedding must consist of concrete sand, with gradation conforming to ASTM C33(6).

4. <u>Filter Cloth</u>

Filter cloth underliner must have the following minimum properties:

Grab tensile strength (ASTM D5034) 220 lbs. BMP-173

Elongation at failure (ASTM D5034)	60%
Mullen Burst Strength (ASTM D3786)	430lbs
Puncture Strength (ASTM D751)	125 lbs.
Equivalent opening size	40-80 mm

Filter cloth must be TenCate Mirafi 600X, Beltech 315, TerraTexHD or approved equal.

5. <u>Testing</u>

The pavers should be tested and confirm to the following tests:

Compression/Load Test (ASTM C 67 - Adapted)

Samples are to be conditioned at $70^{\circ}F$ (21°F) and 50% relative humidity room for 24 hours prior to testing. Cut samples of 12" x 12" were used for this test.

Sample No.	Effective Area (sq.in)	Maximum Load (lbs.)	Load Strength Per Unit (PSI)
1	49.00	287,000	5,857
2	49.00	296,000	6,041
3	49.00	322,000	6,571
		Average:	6,156

A. Load Tests - Quarter of a full Panel.

B. Compression Tests - Single Block Unit

Sample No.	Effective Area (sq.in)	Maximum Load (lbs.)	Compression Strength Per Unit (PSI)
1	12.25	68,500	5,592
2	12.25	65,000	5,306
3	12.25	70,000	5,714
		Average:	5,537

6. <u>Installation Procedure</u>

- a. Prior to placing a dense-graded base, the soil subgrade or approved fill should be uniformly compacted to at least 95% of standard Proctor density per ASTM D698(4). Remove from the setting bed rock or other materials which would create uneven bearing.
- b. Install concrete curb along the perimeter outlining the entire area to receive crushed stone and pavers.
- A 12 inch deep crushed stone base should then be installed, compacted to a minimum of 98% standard Proctor density (4).
- d. Place sand in a 2" compacted layer over the base to present a true and even grade over entire area to receive pavers.
- e. Set pavers and line up to abut.

7. <u>Void Filler</u>

Thoroughly mix topsoil with fertilizer and spread loosely to fill voids in pavers. Water with a mist spray to settle. Add additional topsoil mix to bring the topsoil flush with top of the paver. Seed at slightly less than normal rate. When grass is 2 1/2" high, cut to 1 3/4".

C. <u>Material and Methods – Gravel</u>

- 1. The entrance areas must be cleared and stripped of all vegetation, roots and other objectionable material prior to installation of the access way as specified.
- 2. Provide surface drainage and divert excess runoff to stabilized areas as required and as directed by the Engineer.
- 3. Gravel use NYSDOT Size No. 3 coarse aggregate.
- 4. Thickness not less than 18 inches
- 5. Width must be twelve (12) foot minimum.
- 6. Filter cloth must be placed over the entire area prior to placing of stone. Filter cloth must be as specified below.

Filter cloth underliner must be suitable for heavy duty construction traffic and have the following minimum properties:

Grab tensile strength (ASTM D5034)	220 lbs.
Elongation at failure (ASTM D5034)	60%
Mullen Burst Strength (ASTM D3786)	430lbs
Puncture Strength (ASTM D751)	125 lbs.
Equivalent opening size	40-80 mm

Filter cloth must be TenCate Mirafi 600X, Beltech 315, TerraTexHD, or approved equal.

- 7. Surface water All surface water flowing or diverted toward construction entrances must be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
- 8. Maintenance the entrance must be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
- 9. When truck washing is required, it must be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- 10. Periodic inspection and needed maintenance must be provided after each rain.

D. <u>Measurement and Payment</u>

The contract price per square foot for Permanent Maintenance Accessway must be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.606-B for Concrete Pavers and Item No. BMP-7.606-C for Gravel. No separate payment must be made for concrete curbing or sub base material used for pavers. The unit price per square foot must include all labor, materials, equipment and incidental expenses necessary to complete the work in accordance with the plans and specifications to the satisfaction of the Engineer.

7.608 SURVEY BOLLARDS AND SURVEY MONUMENTS

A. <u>Description</u>

The Contractor shall furnish and install Survey Bollard and Survey Monuments which are used to delineate the boundaries of DEP properties. The Surveying services to determine the location of the Survey Bollards and Monuments is provided under a separate contract item. The general location of the Bluebelt properties to have the Survey Bollards and Survey Monuments to be installed are shown on the Contract Drawings.

B. <u>Materials</u>

 Survey Bollards – All bollards shall be made of wood. All wood bollards shall be Southern Yellow Pine, No. 1 grade timbers as graded by the Southern Pine Inspection Bureau (SPIB), conforming to the American Softwood Lumber Standards and defined in paragraph 402 of the SPIB grading rules, 1994 edition. Additionally, the following requirements shall be met:

All bollards shall be free of any knots on edges or ends.

All bollards shall be free of holes, ring shakes, warp (including bow, cup, crook and twist). Warp is restricted to the "light" category as described in SPIB paragraph No. 752.

The bollards shall be free from wane and bark inclusions and decay. Splits and checks shall not exceed 3/8" in width of more than one-half the length and thickness of the timber. The grain deviation shall not deviate more than 1 in 15.

All wood bollards shall be fabricated in strict accordance with the contract drawings and specifications and shall be dressed to finished dimension of not less than 1/2" below nominal thickness and width. Bollards which measure below 1/2" finished dressed size will be rejected in the field by the Engineer. All edges and ends shall be uniformly eased. The top exposed end shall receive a 1" chamber in accordance with the contract detail plan drawings. All fabrications shall take place before pressure preservative treatment.

Wooden Bollards shall be manufactured by Boro Lumber & Timber Company, Inc.; Maspeth, NY; Great Southern Wood Preserving Incorperated, Abbeville, AL; Georgia-Pacific Building Products, Atlanta Ga; or by an approved equal.

Wood Bollards shall be CCA (Chromated copper Arsenate) pressure treated to a maximum retention of 0.40 lbs per cubic foot in accordance with the American Wood Preservers' Association (APWPA) Standards C1 and C2. The preservative shall penetrate 2.5" or 85% of the sapwood. The method of preservative treatment shall be in accordance with the latest AWPA standards.

Each bollard shall be installed plumb and square and to the required height, at the locations specified, and to the satisfaction of the Engineer. After the installation of the bollard is complete, the contractor shall remove all excess excavated material and dispose of off-site. The disturbed area shall be graded and mulched by the Contractor, as directed by the Engineer. No extra payment shall be made for this work.

2. Concrete Property Monuments

The concrete monument shall be dimensioned as shown on the detail on the Contract drawing. The concrete monument shall consist of a concrete shaft 30 inches long with dimensions at the top of five (5)inches and five (5) inches. The dimensions at the bottom of the shaft shall be five (5) inches and six (6) inches, so there shall be a slight taper on one side of the shaft.

The top of each monument shall have an aluminum disk with a diameter of two (2) inches attached to an 18 inch long #4 rebar embedded in the concrete. The concrete shall be class A-40 with a compressive strength of 4,000 psi. The following wording shall appear on the top of the disk:

N.YC.D.E.P. MONUMENT BLUEBELT BOUNDARY

Each disk shall have a cross in the middle marking the exact boundary point, and the number for the monument shall be stamped on the top. The Engineer will instruct the Contractor as to what number the contractor is to stamp on a particular aluminum disk.

The installation of the monument in the field shall consist of digging a hole with a diameter of 12 to 16 inches and a depth of at least 36 inches. The hole shall be filled with cement into which the monument shall be set. The hole shall then be backfilled.

The top of the monument shall be set so that it is flush with existing grade in areas where pedestrians frequent such as sidewalks. This

is required so the monument will not become a tripping hazard. If the monument is located in areas without pedestrians, the top of the monument shall be elevated 1 to 2 inches above existing grade, so it can be more easily found in the future. In all cases, the concrete part of the top of the monument shall be painted red, omitting the aluminum disk, again for ease of detection. The Engineer shall direct the Contractor in all aspects of monument installation.

As directed the Engineer the monument shall be located at a corner or other point easily identified. If a tree, structure, fence or other obstruction prevents the monument from being located exactly on a line, the surveyor shall provide an $8\frac{1}{2} \times 11$ inch sketch indicating what offset from the line was necessary because of the obstruction.

After installation of the monument is complete, the contractor shall remove all excess excavated material and dispose off-site. The Contractor shall also be responsible for a general clean-up of the work-site.

C. <u>Extra Materials</u>

The Contractor shall furnish extra materials and deliver it to the following address:

DEP Staten Island Bluebelt 182 Joline Avenue Staten Island, NY 10307 718-668-6305

The extra material shall consist of a five (5) wooden bollards and ten (10) survey monuments that meet all requirements of specification section 7.608. The extra material shall be delivered to the DEP Bluebelt Field Office and a signed receipt (from DEP) shall be submitted to the Engineer to acknowledge DEP's receipt of the forementioned materials. Failure to supply the extra materials shall result in the DEP taking a total credit of three thousand dollars (\$3,000).

D. Measurement and Payment

The quantity to be measured for payment under this section shall be the total number of survey monuments supplied in accordance with the plans and specifications and directions of the Engineer.

The contract price per unit for survey monuments furnished and installed shall be as indicated on the BID SCHEDULE OF PRICES, Item No. BMP-7.608-B. The bid price shall be a unit price per survey monument, and shall

include the cost of all labor, materials, equipment, and all work incidental thereto, necessary to complete this item in accordance with the plans and specifications and to the satisfaction of the Engineer.

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7.700 STREAMBANK STABILIZATION – WORK INCLUDED

Under Streambank Stabilization, the Contractor shall provide all labor, material, tools and equipment necessary to complete the execution of the work in complete accordance with the Specifications and all Contract Drawings. The work shall include items of work specified under the following Sections.

Section Number <u>Title</u>

7.710

Reno Mattress

* * * * *

7.710 <u>RENO MATTRESS</u>

A. <u>Description of Work</u>

Under this item the Contractor shall furnish all labor, materials, equipment necessary to install Reno Mattress as shown on the Contract drawings and in accordance with the specification and as directed by the Engineer.

B. Materials and Construction

Reno Mattress is a wire mesh container uniformly partitioned into internal cells with relatively small height in relation to the other dimensions. The internal cells are interconnected with other units and filled with stone at the project site to form flexible, permanent monolithic structures used for channel bottom protection. The reno mattress shall have the dimensions as shown on the contract drawings.

The wire mesh shall be non-raveling mesh made of twisting continuous pairs of wires to form hexagonal shaped openings which are interconnected to adjacent wires. The wire is made from zinc coated and overcoated with PVC. PVC coatings shall not show cracks or breaks after the fabrication of the mesh. Fasteners used to assemble and interconnect the individual units shall be made of stainless steel.

The stones for the reno mattress shall be between 4" and 6" in diameter. The stones shall meet the specifications of the Rip Rap, Section 7.107 of this contract.

The subgrade shall be excavated to allow for the placement of the reno mattress to form the grade shown of the contract drawings. The reno mattress shall be placed on geotextile fabric laid directly on the compacted subgrade.

C. Measurement and Payment

The quantity to be measured for payment under this Section shall be the total number of square yards of reno mattress installed as directed by the Engineer.

The contract price per square yard of reno mattress installed shall be as indicated on the BID SCHEDULE OF PRICES Item No. BMP-7.710. The contract price shall include all excavation, grading and geotextile fabric necessary to install the reno mattress as directed by the Engineer. The bid price shall constitute full compensation for all labor, materials, equipment

BMP-182

and work incidental thereto, necessary to complete this item in accordance with the plans and specifications to the satisfaction of the Engineer.

* * * * *

UI - PAGES UTILITY INTERFERENCES SECTION

NOTICE

The PAGES CONTAINED IN THIS SECTION (UI - PAGES) REPRESENT ADDITIONAL CONTRACT REQUIREMENTS APPLYING TO WORK PERFORMED IN THE PRESENCE OF PRIVATELY OWNED UTILITY FACILITIES.

PROJECT ID: MIBBNC04A

(NO TEXT ON THIS PAGE)

UTILITY INTERFERENCES (UI) SECTION

DATED: December 20, 2021

- 1. The Contractor shall be responsible for compliance with all the provisions of the following Sections and Schedules, which are hereby made a part of the original contract documents:
 - A. "UI SECTION: Additional Contract Requirements Applying to Work Performed in the Presence of Privately Owned Utility Facilities" (Pages UI-3 through UI-11).
 - B. Schedule U-1 (Page UI-13).
 - C. Schedule U-2 (Page UI-14).
 - * Consolidated Edison Pages UI-15 through UI-31 * Verizon – Pages UI-32 through UI-33
 - D. Utility drawings (6 Sheets) consisting of:

*Con Edison-Guidelines For Working Near Energized Overhead Electrical Distribution Systems (1 sheet)

- * Con Edison- Overhead Condition Report (1 sheet)
- * Con Edison- Conduit and Duct Occupancy Plate (2 sheets)
- * Con Edison– Low Tension Mains and Service Plate (2 sheets)

All six (6) drawings are attached to the Plans.

- 2. Each facility operator shall provide inspectors at the work site to inspect methods of interference work, verify quantities and items of Utility Work, and coordinate all phases of the facility operator operations.
- 3. In addition, the following statements are made to provide clarification of various Paragraphs under UI Section:
 - A. UI Section, Paragraph 4, requires the Contractor to immediately commence negotiations with each Company for an Interference Agreement under which the Company will compensate the Contractor for any Interference Work which the Company does not elect to perform with its own forces or by specialty contractors retained by the Company. Thus, the Contractor is on notice that its work under the Contract may be affected by Interference Work performed by (a) the Contractor pursuant to a separate Interference Agreement with the Company, (b) the Company, or (c) partly by each.

- B. UI Section, Paragraph 2, informs the Contractor that the duration of the Contract as shown in Schedule A includes the time which may be necessary for the Contractor to perform the necessary Interference Work.
- C. The Contractor is hereby informed that the duration of the Contract as shown in Schedule A includes the time which may be necessary for the Company to perform whatever portion of the Interference Work which the Company elects to perform with its own forces or by specialty contractors retained by the Company.
- D. UI Section informs the Contractor that the City has entered Into an Interference Agreement with the Companies regarding interferences to the City work in this Contract created by the facilities owned and/or operated by such Companies. Pursuant to this Section, a sample of the Utility Agreement letter as executed by the Companies is annexed on page UI-12, as an Exhibit to the Contract. Signed copies of those Utility Agreement letters are on file with New York City Department of Design and Construction (DDC).
- E. The City has no contract with any of the Companies for work on or adjacent to the site of work under this Contract, and the Companies are not "Other Contractors" as defined for the purposes of this Contract. The Contractor is reminded, however, that pursuant to UI Section, Paragraph 4, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, regardless of whether such Interference Work is covered by an Interference Agreement between the Contractor and the Company or is performed by the Company using its own forces or by specialty contractors retained by the Company.
- F. UI Section, Paragraph 14, provides that the provisions of UI Section are material provisions of the Contract and that the Contractor's failure to comply with the procedures set forth in UI Section are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

Pursuant to this Section, the Contractor is informed that the Performance Bond required of the Contractor pursuant to the Contract is not deemed to guarantee performance of any of the Interference Work.

PROJECT ID: MIBBNC04A

Utility Interferences Section - Additional Contract Requirements Applicable to Work Performed in the Presence of Privately Owned Utility Facilities

The Contractor is hereby notified that pursuant to the law and franchise agreements issued by the City, certain private utility and public service companies named in Schedule U-1 ("the Companies") own and/or operate surface and/or subsurface facilities within the limits of this contract. The existence of these facilities impacts the productivity of the City work called for in the contract. In order to improve coordination of the City construction with the private utility facilities owned and/or operated by the Companies named in Schedule U-1, Article 1.06.30 of the Standard Highway Specifications of the New York City Department of Transportation, Dated August 1, 2015; and/or Articles 10.15 through 10.18 of the Standard Sewer and Water Main Specifications of the New York City Department of Environmental Protection, Dated July 1, 2014; as applicable, are amended and will be implemented as follows:

1. **Pre-engineering:**

The anticipated scopes of private utility facilities interferences and anticipated work items and specifications are included in this contract. The locations of these interferences are indicated on the plans and/or listed in the specifications for this contract, and a schedule of estimated quantities by type of interference expected to be encountered within the limits of this project area have been listed on Schedule U-2. In addition, in Schedule U-3 the Companies have provided standard details and methods for supporting, protecting, relocating, and/or working around their facilities when they are in interference with City contract work.

2. Means and methods for City work:

a) The Contractor is hereby notified that the utility interferences identified on the plans and/or listed in the Specifications to be known conditions which may impact the performance of, and/or interferes with, City work. The Contractor will be required to perform such utility work as directed by the Resident Engineer in order to clear all utility interferences from the project site as required for satisfactory completion of City work within specified contract schedule.

b) In areas serviced by overhead lines on poles carrying electric, telecommunication and cable system, the Contractor understands and by bidding for this contract agrees that he/she has reviewed the schedule of estimated quantities by type of interference expected to be encountered within the limits of this project and that he/she will be required to perform the public work in the presence of these overhead lines and appurtenances located in areas adjacent and/or within the project area. As a consequence, he/she will select means and method of construction appropriate to maintain the safety clearances required or as permitted by contract specifications (e.g. "CET 350 – Overhead Accommodation Protection of Overhead Facilities, Poles, and Appurtenances") in order to avoid damaging the insulation or shielding of these lines and also to prevent knocking them down. The duration of the contract as shown in Schedule A thus includes the time which may be necessary for the Contractor to remove, repair, protect, support, shift, temporarily remove and replace, work around and/or work in the presence of the Companies' facilities ("Interference Work") as described on the plans and/or specifications of the contract during the progress of the City work.

3. Field inspection prior to construction:

Prior to the start of any contract work in areas serviced by overhead electric lines, and after the award to the apparent low bidder for this contract, the Contractor must request a field walk of the project area along with the operator of the overhead electrical facilities and the DDC Engineer-In-Charge. At that time the facility operator, pursuant to contract specification (e.g. "CET 350 – Overhead Accommodation Protection of Overhead Facilities, Poles, and Appurtenances") will confirm the type and condition of the overhead electrical lines and the sufficiency of their insulating properties with respect to the means and methods proposed by the Contractor. The Contractor must be prepared to describe in enough details his/her proposed means and methods of construction operations in order to anticipate the likelihood that electric lines insulation would be cut or otherwise compromised. Also, such details will allow the facility operator to anticipate the need for added insulation and/or shielding of non-insulated lines.

4. Compensation for interference work:

Compensation for Interference Work is a matter of adjustment between the Contractor and each private utility company located within the limits of the project area and whose utility facilities are affected by City contract work. In particular, the City will not compensate the Contractor for any direct and/or indirect costs related to Interference Work, including, but not limited to, delay, lost profit, increased overhead, or any other impact costs which are deemed to be included in cost agreement between the Contractor and private utility company affected by such work. Upon receipt of a Notice of Award from the City, the Contractor shall immediately commence negotiations with each of the Companies concerning the manner in which and the price for which the Contractor, through its own forces or by others hired by it, will perform and be paid by the Company for all necessary Interference Work as defined above that the Company(ies) choose(s) not to perform with its(their) own forces or by specialty Contractors hired by it (them) (as per "Interference Agreement"). Specialty contractors' work is limited to (i) insulation installation and removal, (ii) live gas and steam work, (iii) cleanup and disposal of hazardous materials, (iv) splicing live electrical and telecommunications facilities, and (v) work not within the competence of general construction contractors.

5. Interference Agreement:

a) The Companies have provided estimate of the quantity of each type of interferences expected to be encountered in the contract in Schedule U-2. The parties may negotiate an Interference Agreement in any format or manner they deem fit based on quantities and types of Interferences expected to be encountered on this Contract as stated in Schedule U-2.

b) Furthermore, in Schedule U-3, standard unit work measurement and payment provisions are specified and shall apply only if the Contractor and affected Utility companies enters into a unit price based on an Interference Agreement, otherwise the unit of work measurement, and payment provisions set forth in Schedule U-3 shall not apply. The Contractor shall notify the City upon concluding an Interference Agreement with each of the Companies, which shall be binding and final once concluded.

6. City contract work to continue without Interference Agreement:

If, prior to the start of construction, as directed by the City's Order to work / Notice To Proceed (OTW/ NTP) date any of the Companies and the Contractor have not concluded an Interference Agreement as described above, then the City will issue to private utility company (ies) in a written "48 Hours' notice to Public Corporation" in accordance with the Administrative Code of the City of New York. Construction will then proceed as ordered and the Contractor will be directed by the Resident Engineer (RE) to perform the City work on Time, Material and Equipment basis (T&M) as specified in standard City contract agreement Article 26.2. T&M records will include identification of types of utility facilities interfering with City work, utility facility owners, specifying the nature and quantity of any materials, plant and equipment furnished or used in connection with the performance of such work and crew size, such as: name and number of each worker employed on such work. T&M records will also indicate the hours of active time, standby time and idle time. The Company (ies) and the Contractor will maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and will provide copies of this information to the other party daily for reconciliation. These T&M records along with cost evaluations will be submitted daily to the Resident Engineer for review and approval. The total cost of City work will be based on quantity of work performed multiplied by unit price contract bid items. The total interference cost will be calculated as the difference between the total T&M cost and total cost for City work. The Resident Engineer will conduct a monthly reconciliation session of the daily T&M records with the affected Company (ies) and the Contractor. If the Contractor and affected utility companies cannot reconcile their T&M records, by the last day of each month, then the Resident Engineer will submit the approved City's T&M records along with total cost evaluations to the DDC Director of Construction who will review these records and recommend approval and validity certification by the DDC Construction Assistant Commissioner.

a) Copies of the DDC approved and certified T&M records will then be transmitted by the DDC to the Contractor and the utility companies. These certified records may be used by the Contractor for compensation claims against the responsible private facility owners, or may be used by any party as supporting documentation in dispute regarding compensation for performing Interference Work as identified in Schedule U-2. The Contractor will be required to perform City work while invoices are submitted by the Contractor to the utility companies for payment within 30 days, or while compensation disputes between the Contractor and affected company (ies) are submitted to Binding Arbitration process described in Paragraph 10.

b) All issues related to utility work and/or delays due to compensation disputes or claims against utility companies are not allowable as justification for granting contract time extensions or delay claims against the City. The City may assess liquidated damages specified in the contract for net overall delays suffered by City contract work as a result of utility issues, disputes and claims.

c) The standard City contract dispute resolution process specified in Article 27 "Presentation of disputes to Commissioner", of the standard City contract agreement is not applicable to any disputes related to utility work and/or compensation for such work or claim against utility companies. Utility work issues, disputes and claims may only be submitted to Binding Arbitration process described in Paragraph 10.

d) The Contractor will notify the Resident Engineer when utility capital work not specified in Schedule U-2 and/or for utility work that require the intervention of company utility specialty crews causes excessive contractor's labor and equipment standby or idleness and, thereby jeopardizing the City project schedule. The Resident Engineer will submit the facts to the DDC Director of Construction who will recommend to the DDC Deputy Commissioner regarding the issuance of a "48 Hours' notice to Public Corporation" to the concerned utility company as authorized by the New York City Administrative Code Section 19-143 and/or Section 24-521 as applicable.

e) Utility delays caused by utility capital work not listed in Schedule U-2 and/or by unavailability of utility specialty crews cannot be discounted for earning any contractual bonus when such bonus clause is included in a contract. However, if such specified bonus is not earned or is disallowed by the City or if the City assesses specified liquidated damages as a result of such excessive delays, the Contractor may seek damages from the responsible utility company (ies).

7. Extra utility work with Interference Agreement:

If during construction the Contractor encounters utility facilities interferences or utility scope of work that it believes is not covered by the Interference Agreement as described above, then the Contractor shall immediately notify the Company in writing, with a copy to the City, describing the nature and location of the extra work in question. The Company then has five (5) business days to investigate the conditions and then:

a) Advise the Contractor and the City in writing that no interference with its facilities exists at the location in question, and hence that the Contractor may proceed with City work without providing for any impact from Company facilities;

b) Advise the Contractor and the City in writing that the Interference Agreement negotiated pursuant to Paragraph 6, above, provides for the scope of work encountered, specifying the exact unit items and/or terms of the agreement that cover the work;

c) Advise the Contractor and the City in writing that it intends to perform the necessary utility work with company forces or with its own contractor including, but not limited to, relocating its facility out of the way of the proposed City work. In this case, the Company shall provide a written schedule for the performance of the utility work it proposes to perform, which shall be subject to approval by the City based on its impact to the Contractor's currently approved progress schedule. Upon approval of the Company's schedule by the City, the Contractor shall provide access to the worksite to the Company and/or any contractors hired by it to perform this utility work. If necessary, the City may grant a contract time extension for delays caused by the performance of such utility work by the company.

d) Reasonably specify in writing the scope of work to be performed by the Contractor on behalf of the Company that is not covered under the Interference Agreement negotiated pursuant to Paragraph 6, including, but not limited to, relocating, supporting, and/or protecting the Company's facilities, and/or shifting the City facility if approved by the Resident Engineer, and/or otherwise changing its operations to work in the presence of the Company's facilities. Should the Company elect this option, it must adequately define and provide an initial price offer for the work required to be performed.

8. Means and Methods for utility work:

Upon receipt of the Company's determination pursuant to Paragraphs 7.b, or 7.d, above, the Contractor shall determine reasonable means and methods of performing the work defined by the Company. These means and methods are subject to approval of the Company, which shall not be unreasonably withheld. If, however, the Company objects to the Contractor's proposed means and methods then it shall define an alternate method of construction. Upon receipt of the Company's approval or its proposed alternate method of construction, the Contractor shall commence performance of the work defined by the Company as soon as possible, and shall

perform the work in a good, workmanlike, and efficient manner, using the means and methods approved by the Company, in order to permit the City work to proceed in the most expeditious manner possible, but without imposing unreasonable and/or unnecessary costs on the Company. It is expressly understood by all parties that the City's rights pursuant to Article 4 of the Contract apply to Utility Work performed pursuant to this Section.

9. Disputed utility work covered by an interference agreement:

The City Work will continue as described in Paragraph 6 above. In the event of any dispute between the Company (ies) and the Contractor regarding any issue related to the performance of, or payment for, utility work, including, but not limited to, any indirect or impact costs incurred by the Contractor due to the Utility Work and/or to the existence of facilities owned or operated by the Company (ies) on the line of the work. The Company (ies) and the Contractor hereby agree to submit to each other a "Final Offer," in writing, by certified mail. Each party shall then have three business days to consider each other's Final Offer. In the event that neither party accepts the other's Final Offer within those three days, the Company (ies) and the Contractor agree to immediately submit the dispute to binding arbitration as described in Paragraph 10. During the pendency of any arbitration, the Company (ies) and the Contractor shall maintain separate records of the actual quantity and cost of labor, materials, and equipment expended, and to provide copies of this information to the other party on a daily basis for reconciliation. Any and all disagreement with the records maintained and provided by the other, must be documented in writing to all parties. However, these records are solely for the benefit of presentation to the arbitrator, whose decision may not necessarily be based on these records and in any event, is final. Both parties should be aware that the City will not confirm or deny the accuracy of any records that is not certified by DDC. While the arbitration is pending, the Company shall pay the Contractor on a monthly basis, based on the price offered by the Company to the Contractor for the performance of the work.

10. Arbitration of utility work:

The arbitration of the issues described above shall be conducted pursuant to the Construction Industry Arbitration Rules of the American Arbitration Association (hereinafter "the Rules" and "AAA") in effect on the date the arbitration is initiated except as set forth herein. The arbitration award shall be final and binding upon the parties to the arbitration and judgment upon the award may be entered in a court having jurisdiction.

a) Once an arbitrator(s) has been appointed by the AAA, the arbitration shall be scheduled as promptly as possible given the arbitrator(s) and the parties' schedules.

b) No later than seven days prior to the first arbitration hearing, Company and the Contractor shall submit to the arbitrator(s), and to each other, a summary of each

party's respective position and such other information as is deemed appropriate, along with a copy of each party's Final Offer as specified in Paragraph 9.

c) The arbitration shall be conducted and concluded in two days.

d) On the morning of the first day of the arbitration, the Contractor and/or representatives shall have 3 ½ hrs. to make a presentation of its claim to the arbitrator. During its presentation, the Contractor shall not be permitted to produce any documents or cost records which have not already been provided to the Company. The Contractor shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.

e) Company and/or its representatives shall have two hours to ask the Contractor questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask the Contractor questions about its claim and its presentation.

f) On the morning of the second day of the arbitration, Company and/or its representatives shall have 3 ½ hours to make a presentation of its claim to the arbitrator. During its presentation, the Company shall not be permitted to produce any documents or cost records which have not already been provided to the Contractor. The Company shall be permitted to produce any analysis or description of its claim which has been prepared for the purpose of its presentation.

g) The Contractor and/or its representatives shall have two hours to ask Company questions about its claim and its presentation. Thereafter the arbitrator(s) shall have two hours to ask Company questions about its claim and its presentation.

h) Subject to the above time limitations, the arbitrator(s) may conduct the arbitration in such manner as the arbitrator(s) deems reasonable.

i) The arbitrator(s) shall then have one week to select in writing, as the arbitrator ('s) award, that party's Final Offer which appears to be more reasonable, based on the presentations at the arbitration hearings.

j) The arbitrator shall have no discretion to grant an award other than one of the two Final Offers submitted by the parties.

k) Any award for work that has already been performed shall be paid on the 7th day after receipt of the arbitrator's decision, or on the 30th day after completion of the work, whichever is later. Payment for work not yet completed at the time of the arbitrator's decision shall be paid within 30 days of completion of work. Interest shall accrue from the date payment is due at the rate of 9% per annum. Either party may cause judgment to be entered in accordance with the arbitrator(s) decision in a court in the State of New York, County of New York.

I) The arbitrator's fees and any other costs of the arbitration shall be initially shared equally by Company and the Contractor. The non-prevailing party shall then pay all

arbitrator's fees and costs of the arbitration and shall reimburse the prevailing party for its share of such fees and costs theretofore paid.

m) The parties may, at any time, settle any matter submitted to arbitration.

11. Order-out waiver:

The Contractor and all subcontractors hired by it, if an Interference Agreement is executed as specified between the concerned parties, agree to waive any rights they may have, if any, under law, contract or otherwise to compel the City to assert any right the City may have, including the issuance of any directives required under the New York City Administrative Code, Section 19-143 and Section 24-521, to require any or all of the Companies to maintain, repair, replace, protect, support, shift, alter, relocate, and/or remove utility facilities in connection with the work to be performed under this contract. However, nothing in this Section shall preclude the City from exercising its rights under the Law to issue such a directive to the Company.

12. Cost of insurance:

Each of the named Companies, at their option and if an Interference Agreement is executed as specified between the concerned parties, may be named as an additional insured on all insurance policies required to be maintained under this contract. In the event that a Company opts to be so named as an additional insured, the actual incremental cost, if any, to the Contractor of providing such insurance coverage shall be borne by that Company. The Contractor shall provide a written statement from its insurance provider documenting the actual cost of this added coverage to the Company. Under no circumstances shall the cost of insurance coverage on behalf of any Company be borne by the City. Nothing in this paragraph shall be interpreted to imply the City's acceptance of any additional responsibility or liability for any matter related to the performance of Utility Work. In particular, the Company and the Contractor bear joint and full responsibility to ensure that any Utility Work performed by the Contractor is in compliance with all applicable government and Company regulations.

13. Cost of utility interference work:

The Companies, by virtue of participating in design alignment meetings and submitting their scope of Utility Interferences Work to the City, have agreed to perform their obligations described in this Section. It is expressly understood that the cost of Utility Work or any delays caused by such Utility Work shall not be a charge against the City, but shall be a matter for adjustment between the Contractor and the Company or Companies concerned. The City and the Contractor agree that the Companies are third party beneficiaries of this Section of the contract, if an Interference Agreement is executed between the Contractor and utility company (ies). The provisions of this Section shall govern in all cases where Company property interferes with or is about to be disturbed by the City work, notwithstanding any other provision of the Contract, except for Natural Gas transmission/distribution facilities covered subject to the Gas Facility Cost Allocation Act (GFCAA) and covered separately in this contract.

14. Default declaration:

The Contractor agrees that the provisions of this Section are material provisions of the contract, and that the Contractor's failure to comply with the procedures set forth above are sufficient for the Commissioner to declare the Contractor in default pursuant to Article 48 of the Contract.

15. NYS Labor Law:

The Contractor is hereby advised that New York State Labor Law and/or, Davis-Bacon Act if federally funded, applies to public work. The work described in this Utility Interferences Section of the contract performed by utility company (ies) with their own forces or vendors hired by such company (ies) is not public work.

16. Facility operators:

The insurance requirements in Paragraph 12 of this UI Section apply to: (i) additional Companies, if any, who were not named in Schedule "A" but which have executed an Interference Agreement with the Contractor for utility work; and (ii) additional coverage, if any, paid for by Utility Companies whose utility facilities are located within the project limits, that they may require for the utility work pursuant to an Interference Agreement between the Contractor and such utility company (ies).

(End of Section)

"STANDARD UTILITY LETTER OF AGREEMENT"

Eric MacFarlane, P.E. Deputy Commissioner, Infrastructure Division Department of Design and Construction 30-30 Thomson Avenue Long Island City, NY 11101

RE: <u>City Work Performed in the Presence of Private Utility Facilities</u> Project No:

Dear Mr. MacFarlane:

This letter is to certify that______, has requested the inclusion of the attached "Utility Interferences (UI) Section: Additional contract requirements applying to work performed in the presence of privately owned utility." The company agrees to abide by the terms of this UI Section at the company's own expenses due to their facilities interferences with the Public work.

Sincerely,

By: Authorized Company Representative

Title

NOTARY PUBLIC

CERTIFIED AS TO FORM AND LEGAL AUTHORITY:

By: _____

SCHEDULE U-1

LISTING OF COMPANY (IES) NAMED FOR THIS CONTRACT

COMPANY NAMECONTACT NAMECONTACT TELEPHONECONTACT EMAILCONSOLIDATED EDISONDENNISBRADY917 608 3435bradyd@coned.comVERIZON/ECSAUBREY MACKHANLALL516 758 3705aubrey.n.mackhanlall@verizon.com

UI-Pages Revision 10/24/2016

SCHEDULE U-2

UTILITY INTERFERENCE ENGINEER'S ESTIMATE OF QUANTITY AND TYPES OF INTERFERENCE FOR CONSOLIDATED EDISON

MIBBNC04A

STORMWATER AND SANITARY DRAINAGE MANAGEMENT PLAN FOR SOUTH RICHMOND

	DESCRIPTION		ESTIMATED QUANTITY
CET 350	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES	LS	1
CET 351	INSTALL AND REMOVE "A" FRAME ON UTILITY POLES	EA	3
СЕТ 353Е	SPECIAL CARE OPERATION - TREE PRUNING	EA	10
CET 450.1	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SIZE SURVEY CREW PERFORMING TYPICAL SURVEY FUNCTIONS (TYPE .1)	CRHRS	1
CET 450.2	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .2)	CRHRS	1
CET 450.3	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE MEDIUM SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .3)	CRHRS	1

0

October 29, 2021

CON EDISON SCOPE OF WORK SUPPORT AND PROTECTION

MIBBNC04A

STORMWATER AND SANITARY DRAINAGE MANAGEMENT PLAN FOR SOUTH RICHMOND

CET 350	OVERHEAD ACCOMMODATION, PROTECTION OF OVERHEAD FACILITIES, POLES AND APPURTENANCES	LS
	At the following locations:	
	As Shown On Overhead Condition Report	
	AS SHOWN ON CONTRACT DOCUMENTS	
	Total Quantity for CET 350 = 1	
CET 351	INSTALL AND REMOVE "A" FRAME ON UTILITY POLES	EA
	At the following locations:	
	E/S Boundary Ave., S/O/Zwicky Ave. (P-30067) E/S Boundary Ave., 100' S/S/C Zwicky Ave. (P-22345) N/S Lincoln Ave., I/O Sanilac St. (J-5038)	
	Total Quantity for CET 351 = 3	
CET 353E	SPECIAL CARE OPERATION - TREE PRUNING	EA
	At the following locations:	
	As Required	
	Total Quantity for CET 353E = 10	
CET 450.1	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SIZE SURVEY CREW PERFORMING TYPICAL SURVEY FUNCTIONS (TYPE .1)	CRHRS
	At the following locations:	
	As Shown	
	Total Quantity for CET 450.1 = 1	
CET 450.2	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE SMALL SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .2)	CRHRS
	At the following locations:	
	As Shown	
	Total Quantity for CET 450.2 = 1	
CET 450.3	CONSTRUCTION FIELD SUPPORT REQUIRING AVERAGE MEDIUM SIZE CREW CAPABLE OF PERFORMING VARIOUS TASKS (TYPE .3)	CRHRS
	At the following locations:	
	As Shown	
	Total Quantity for CET 450.3 = 1	

0

October 29, 2021

	Guideline Document for Public Improvement				
conEdison	CONS	ST- 029 Revision Number 4			
Purpose:	To update the Public Improvement Contractor Guideline document for safe entry into Sub-Surface Structures and moving energized underground cables.				
Revision Date:	7-30-2020	Next Revision Due Date:	7-30-2022		
Supersedes Date:	6-30-2018	Revision Cycle Period:	Once every 2 years		

TYPE	NAME	DATE
EH&S	Glenn D. Newell	7/30/2020
Technical	Joseph Bedell, Joseph Bedell Jr. John Stefandl & Marlon Kalloo	7/30/2020
Legal	Inna Rozenberg	7/30/2020

Summary of Changes:	1. 2.		n Moving Energized	<u>OSHA 1926 Subpart V</u> d U.G. Cables Located usly Section 4.0 in
	3.	,	ections 1.4, 2.1, 2.2	2.2, 3.4, 3.6, 3.8, 3.9, 4.5.5,
	4.	Added New Section	4.5.4 - HDPE Con	duit
5. Added New Chapter 5.0 – Breaking Out a Point of Entry (POE)				
Training				
Requirements	-	N/A		
	etc. A	ssociated with this O	perating Documen	t:
Subject Matter Ex	pert:	Marlon Kalloo	Approved Date:	7/30/2020 M. Kallas
Approver Name:		Theresa Kong	Approved Date:	7/30/2020

Consolidated Edison Company of New York, Inc.

Guideline

For

Safe Entry into Sub-Surface Structures (Electrical Enclosed Space),

Moving Energized Underground Cables

Removal of Conduit from Cables, and

Breaking Point of Entry (POE's) Into Sub-Surface Structures

Performed by

Municipal Contractors

TABLE OF CONTENTS:

- 1.0 Definitions
 - 1.1 Competent Person
 - 1.2 Attendant
 - 1.3 Electrical Enclosed Space
 - 1.4 CET Specification
 - 1.5 JB Specification
 - 1.6 Public Improvement Representative
 - 1.7 Municipal Contractor
 - 1.8 Electrically Competent Qualified Municipal Contractor

2.0 - References

- 2.1 OSHA Sections 1910.269 & 1926 Subpart V
- 2.2 Training
 - 2.2.1 Electrically Competent Qualified Municipal Contractor
 - 2.2.2- Municipal Contractor Employee

3.0 - Safe Entry into Sub-Surface Structures, (Electrical Enclosed Space)

- 3.1 Purpose
- 3.2 Application
- 3.3 Guideline
- 3.4 Inspection / Testing
- 3.5 Job Briefing
- 3.6 Attendants
- 3.7 Hazardous Atmosphere
- 3.8 Personal Protective Equipment
- 3.9 Con Edison's Personal Protective Equipment Guideline
- 3.10 Access

4.0 - <u>Removal of Conduit from Cables and Moving Energized Underground Cables</u> Located Outside of Subsurface Structures

- 4.1 Purpose
- 4.2 Application
- 4.3 Guideline
- 4.4 Job Briefing
- 4.5 Removal of Conduit from Cables
 - 4.5.1 Pre-cast Concrete Conduit
 - 4.5.2 Concrete Encased Conduit
 - 4.5.3 Wooden Conduit
 - 4.5.4 HDPE Conduit
 - 4.5.5 Metal Conduit
- 4.6 Visual Inspection
- 4.7 Cable Moving Operations
- 4.7.1 Personal Protective Equipment

5.0 - Breaking Out a Point of Entry (POE's) in an Electrical Enclose Space

- 5.1 Activities Prior to creating POE's
- 5.2 Creation of POE Operations

1.0 <u>Definitions</u>

- **1.1 Competent Person-** As a general rule, a Competent Person is an individual who, by way of training and/or experience, is knowledgeable of OSHA and other applicable standards, is capable of identifying workplace hazards relating to the specific operation, and is designated by the employer with the authority to take all appropriate actions necessary to comply with all applicable standards and properly address hazards. Some OSHA standards add additional specific requirements that must be met by the Competent Person.
- **1.2 Attendant -** An authorized individual who is stationed outside a sub-surface structure or an Electrical Enclosed Space to monitor the authorized entrants and to perform duties assigned including providing assistance to individual inside the sub-surface structure or Electrical Enclosed Space.
- **1.3** Electrical Enclosed Space OSHA defines an Electrical Enclosed Space as a working space, such as a manhole, vault, tunnel, service box, or shaft, used for the operation and maintenance of electric power generation, transmission, and distribution lines and equipment. An Electrical Enclosed Space has a limited means of egress or entry, and is designed for periodic entry under normal operating conditions. Under normal conditions, an Electrical Enclosed Space does not contain a hazardous atmosphere, but may contain a hazardous atmosphere under abnormal conditions.
- **1.4 CET Specification** CET Specification defining private utility work within Municipal Construction Contracts.
- **1.5 JB Specification** Joint Bid specification defining private utility work within a NYC DDC Capital contract.
- **1.6 Public Improvement Representative -** Con Edison employee, (Inspector, Construction Representative, Chief Construction Inspector, Project Specialist, or Manager) assigned to the Public Improvement section.
- **1.7 Municipal Contractor** Construction municipal contractor performing work for Municipal, State or other Public Agencies or Authorities.
- 1.8 Electrically Competent Qualified Municipal Contractor - is a Municipal Contractor employee designated and documented by the Municipal Contractor employer, in writing, as the electrically competent and gualified person who, by way of training and/or experience has the skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment, can identify non-insulated conductors from insulated conductors and/or cables and has the knowledge of the precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools that are required for working on or near exposed energized electrical equipment. The Electrically Competent Qualified Municipal Contractor employee is capable of identifying varying workplace electrical hazards relating to the specific operation and has the authority to take appropriate actions, as required. In order to meet the task specific qualifications of this guideline, the Electrically Competent Qualified Municipal Contractor employee must be familiar with this document and be able to demonstrate adherence.

2.0 <u>References</u>

- 2.1 OSHA Section 1910.269 Electric Power Generation, Transmission & Distribution & 1926 Subpart V –Electric Power Transmission and Distribution
- **2.2 Training-** The OSHA Office of Training and Education (OTE) develops, directs, oversees, manages and ensures implementation of OSHA's national training and education policies and programs in support of OSHA's strategic goals with the objective of reducing occupational hazards through direct intervention, promoting a safety and health culture through compliance assistance, cooperative programs and strong leadership and maximizing OSHA effectiveness and efficiency by strengthening capabilities and infrastructure.

All Municipal Contractor employees shall be trained in and familiar with the safety-related work practices, safety procedures, and other safety requirements in section 1910.269(a)(2) and 1926 Subpart V that pertains to the Municipal Contractor employees' respective job assignments. Municipal Contractor employees' shall also be trained in and familiar with any other safety practices, including emergency procedures, such as manhole rescue, that are not specifically addressed by this referenced section but that is related to their work and is necessary for their safety.

Con Edison manhole inspection and underground awareness training can be scheduled through the Con Edison TLC upon request of the municipal contractor. OSHA 10 certification cards and CPR / First Aid training are prerequisites.

2.2.1 Electrically Competent Qualified municipal contractors shall also be trained and competent in:

- a- The skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment
- b- The skills and techniques necessary to determine exposed live parts from other parts, (determination of non-insulated conductors from insulated conductors / cables).
- c- The knowledge of the precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools that are required for working on or near <u>exposed energized parts of</u> <u>electrical equipment</u>. Generally, the Municipal Contractor will not be required to work on or near exposed/non-insulated energized parts of electrical equipment or cables. In the event special conditions exist requiring working near exposed/non insulated energized parts of electrical equipment or cables, the Municipal Contractor shall cease working and immediately contact the authorized Con Edison Inspector so that a further assessment of the condition can be evaluated, and appropriate guidance provided.
- d- The Electrically Competent Qualified Municipal Contractor employee shall determine, through regular supervision and through inspections conducted on at least an annual basis that each Municipal Contractor employee is complying with the safety-related work practices outlined in this guidance document.

- **2.2.2** A Municipal Contractor employee shall receive additional training (or retraining) by the Electrically Competent Municipal Contractor under any of the following conditions:
 - a- If the Electrically Competent Qualified Municipal Contractor employee indicates that the Municipal Contractor employee is not complying with safety-related work practices
 - b- If new technology, new types of equipment, or changes in procedures necessitate the use of safety-related work practices that are different from those which the Municipal Contractor employee would normally use
 - c- If the Municipal Contractor employee must employ other safety-related work practices that are not normally used or that require modification from those stated in this guidance document

Note: OSHA requires retraining before commencing with a task that has not been performed within one year.

The required training shall be of the classroom and/or on-the-job type. The training shall establish Municipal Contractor proficiency in the work practices required and shall introduce the procedures necessary for compliance. The Electrically Competent Qualified Municipal Contractor shall certify that each Municipal Contractor employee has received the training required and retains records of this training to be supplied upon request by Con Edison.

3.0 Safe Entry into Sub-Surface Structures, (Electrical Enclosed Space)

- **3.1 Purpose:** To establish a guideline that shall be employed for safe entry into Con Edison sub-surface structures by Municipal Contractors.
- 3.2 Application: Municipal Contractor personnel
- **3.3 Guideline:** This guideline provides the requirements for practices that shall be employed for safe entry into Con Edison sub-surface structures. Municipal Contractor personnel requiring entry into Con Edison sub-surface structures shall adhere to this guideline.

3.4 Inspection/Testing

Prior to entry into a Con Edison sub-surface structure, properly trained and qualified Con Edison electrical personnel must conduct an inspection. The assessment will determine if the condition of the electrical facilities contained therein is sufficient to allow need based unrestricted access. Con Edison electrical personnel shall validate that the Con Edison sub-surface structure inspected is approved for need based unrestricted access. The Con Edison Inspector shall communicate and document to an Electrically Competent Municipal Contractor personnel any safety precautions to be taken and that the subsurface structure is safe for entry. Any condition deemed to be un-safe through this formal inspection process would preclude granting access. An inspection must take place daily prior to Municipal Contractor entry. Once the cover is placed on the electric subsurface structure another inspection must occur prior to Municipal Contractor entry. Inspections include but are not limited to:

- 1) Testing for stray voltage by a qualified Con Edison employee or qualified Municipal Contractor employee.
- 2) Completion of atmospheric testing.
- 3) Determination that it is safe to enter the space.
- 4) A visual inspection for any abnormalities previously defined.
- 5) Communication of inspection results and hazards to the Con Edison inspectors and the municipal contractor supervisor.

3.5 Job Briefing

The Electrically Competent Qualified Municipal Contractor in charge shall conduct a job briefing with the municipal contractor's employees involved before they start the job. The briefing shall cover: the hazards associated with the job; work procedures involved; special precautions; and personal protective equipment requirements. The Electrically Competent Qualified Municipal Contractor shall instruct that all cables are to be treated as energized. Additional briefings shall be held if significant changes, which might affect the safety of the municipal contractor's employees, occur during the course of the work. The Electrically Competent Qualified Municipal Contractor shall document completion of the job briefing. A copy of the documented job briefing should be available upon request by Con Edison.

3.6 Attendants

While work is performed in a Con Edison sub-surface structure, a Municipal Contractor Attendant shall be available in the immediate vicinity to render emergency assistance. Sub-surface structure Attendants shall comply with applicable OSHA requirements.

3.7 Hazardous Atmosphere

Municipal Contractor personnel shall perform a hazardous atmosphere test before entry into any Con Edison sub-surface structure and perform continuous air monitoring in compliance with applicable OSHA requirements. Any atmospheric reading deemed to be un-safe would prohibit access to the structure. The Municipal Contractor shall immediately notify the authorized Con Edison Inspector.

3.8 Personal Protective Equipment

Municipal Contractor personnel requiring entry into Con Edison sub-surface structures shall refer to and comply with applicable OSHA requirements regarding the use of Personal Protective Equipment when performing this work. In addition, Con Edison is requiring that Municipal Contractor personnel assigned to work inside Con Edison sub-surface structures shall at all times wear Flame Resistant (FR) Clothing with a rating of 8 cal/cm² or HR2, a retrieval harness and that a retrieval device be on location. In addition, an atmospheric tester must be in use continuously anytime a structure is occupied. See section 3.9 for Matrix on Con Edison's Personal Protective Equipment Guideline.

3.9 Con Edison Personal Protective Equipment Guideline

	Task	Class 0 Gloves	FR Clothing	FR Hood	Blast Goggles	Face Shield	Safety Glasses
1	Pavement breaking	N	N				Y
2	Breaking out concrete encased duct	Y	Y				Y
3	Moving energized primary cables that are located outside a structure while in proximity to joints	Y	Y	Y	Y		
4	Moving primary cables outside a structure (no joints involved)	Y	Y				Y
5	Moving energized secondary cables	Y	Y				Y
6	Hand excavate to locate precast ducts	N	N				Y
7	Hand excavate to locate direct buried cables	Y	Y				Y
8	Removing cable from conduit	Y	Y				Y
9	Breaking structure for POE from outside/inside	Y	Y	1		Y	Y
10	Breaking sub-structure walls	Y	Y				Y
11	Pulling rope within structure with energized cable	Y	Y				Y
12	Pulling rope in enclosed spaces	Y	Y				Y
13	Building a bench or platform within a subsurface structure to support or protect cables.	Y	Y				Y
14	Breaking out unknown precast electric duct	Y	Y				Y
15	Using digging bar over electric facility	Y	N				Y
16	Using digging bar over direct buried cables	Y	Y				Y
17	Using Pneumatic clay digger in vicinity of electric facility	Y	Y				Y
18	Installing forms for field-constructed sub- surface structures from inside the designed footprint when connected cables are present	Y	Y				Y
19	Installing forms for field-constructed subsurface structures from outside the designed footprint when connected cables are present	N	N				Y
20	Installing forms for field-constructed subsurface structure prior to first energization of new cables	N	N				Y
21	Saw cutting operation	Y	N				Y
22	Hand excavate to locate cable fault	Y	Y				Y
23	Hand excavating to find service dead leg	Y	Y				Y
24	Removing underground silo	Y	Y				Y
25	Regrade	Y	N				Y
26	Build/remove shunt box w/ energized cable inside	Y	Y				Y

3.10 Access

Municipal Contractor personnel shall not climb into or out of Con Edison subsurface structures by stepping on cables or hangers.

4.0 <u>Removal of Conduit from Cables and Moving Energized Underground</u> <u>Cables Located Outside of Subsurface Structures</u>

- **4.1 Purpose:** Establish a guideline that shall be employed by Electrically Competent Qualified Municipal Contractor personnel, meeting OSHA training requirements, when removing conduit from cables and moving Con Edison energized underground cables located outside structures.
- 4.2 Application: Municipal Contractor personnel
- **4.3 Guideline:** This guideline details the requirements for practices that shall be employed when moving Con Edison energized underground cables located outside of Con Edison structures. Movement of energized cables on the Con Edison system shall be performed in accordance with the following directions. Only Electrically Competent Qualified Municipal Contractor personnel who been trained and meet necessary OSHA requirements for moving energized underground cables and in accordance with the following directions shall perform movement of energized cables on the Con Edison system.

4.4 Job Briefing

The Electrically Competent Qualified Municipal Contractor in charge shall conduct a job briefing with the Municipal Contractor's employees involved before they start the job. The briefing shall cover: the hazards associated with the job; work procedures involved; special precautions; and personal protective equipment requirements. The Electrically Competent Qualified Municipal Contractor shall instruct that all cables are to be treated as energized. Additional briefings shall be held if significant changes, which might affect the safety of the Municipal Contractor's employees, occur during the course of the work. The Electrically Competent Qualified Municipal Contractor shall document completion of the job briefing.

4.5 Removal of Conduit from Cables

All subsurface electric cable systems and related components shall be considered energized. Caution shall always be employed whenever conduits are opened to expose the interior cable.

4.5.1- Pre-cast Concrete Conduit

- a- The conduit shall be fractured by striking the top end corner of the conduit with a 3 lb. hammer equipped with a non-conductive handle. When fracturing the conduit, all impact/chipping action shall be performed in such a manner so as to be directed across the top of the conduit away from any cable that may be inside of the conduit.
- b- A small piece of the concrete conduit shall be chipped away so that a visual examination of the interior of the conduit can be made to verify the presence of cable. All impact/chipping actions shall be performed in such a manner so as to be directed across the top of the duct, away from the cable.

- c- If cable is present, concrete-chipping operations shall continue until enough material has been removed to permit insertion of a non-conductive protective shield barrier between the conduit and cable or as directed by the authorized Con Edison Inspector based on existing field conditions. Material such as exterior grade plywood or lumber (min. thickness ³/₄") or suitably reinforced plastic sheet material (min. thickness 0.060" – e.g. Norplex Micarta RT504 NEMA Grade G-3) shall be used for this purpose. This shield material shall provide protection for the cable during the remaining conduit removal operations. The remainder of the conduit shall be fractured using the 3 lb. hammer equipped with a non-conductive handle. Care shall be taken so as to avoid any impact upon the cable, either by direct or indirect hammer blows.
- d- During and after conduit removal operations, cable/conduit shall be properly supported as indicated in Section 5.7, below.

4.5.2 - Concrete Encased Conduit

- a- The concrete encased conduit (including but not limited to precast, fiber, tile, clay), shall be fractured by striking the top end corner of the conduit with a 3 lb. hammer equipped with a nonconductive handle. When fracturing the conduit, all impact/chipping action shall be performed in such a manner so as to be directed across the top of the conduit away from any cable that may be inside of the conduit.
- b- For concrete encased conduit, it may be necessary to employ a handheld cold chisel (in conjunction with the 3 lb. hammer) to remove concrete encasement. If a chisel is utilized, all impact/chipping actions shall be performed in such a manner so as to be directed across the top of the duct, away from the cable.
- c- If the concrete encasement is so dense as to render the use of a hammer and handheld chisel non-effective, an 8-pound sledgehammer may be employed. If neither of these devices proves effective, the use of a pneumatic chipping hammer will be permitted. The weight/size of the pneumatic chipping hammer shall not exceed 20 lbs. When utilizing a pneumatic chipping hammer, the device shall be securely positioned and be under close operator control at all times. The tool bit used for these operations shall be chisel shaped with a minimum width of two (2") inches. All impact/chipping actions shall be performed in such a manner so as to be directed across the top of the duct, away from the cable.
- d- A small piece of the concrete conduit shall be chipped away so as to permit verification of the presence of cable inside the conduit.
- e- If cable is present, concrete-chipping operations shall continue until enough material has been removed to permit insertion of a non-conductive protective shield barrier between the conduit and cable or as directed by the authorized Con Edison Inspector

based on existing field conditions. Material such as exterior grade plywood or lumber (min. thickness $\frac{3}{4}$ ") or suitably reinforced plastic sheet material (min. thickness 0.060" – e.g. Norplex Micarta RT504 NEMA Grade G-3) shall be used for this purpose. This shield material shall provide protection for the cable during the remaining conduit removal operation.

- f- After installation of the shield material has been completed, continue removal of remaining conduit and encasement, using handheld and power tools.
- g- During and after conduit removal operations, cable/conduit shall be properly supported as indicated in Section 5.7, below.

4.5.3 – Wood Conduit

- a- Wooden conduit shall be split using a handheld cold chisel and a 3 lb. hammer equipped with a non-conductive handle. All impact/chipping action shall be performed in such a manner so as to be directed across the top of the conduit away from the cable.
- b- The chisel shall use to create a small window in the conduit that will permit a visual inspection of the conduit interior for the presence of cable.
- c- If cable is present, wood conduit material shall continue to be removed until enough material has been removed to permit insertion of a non-conductive protective shield barrier between the conduit and cable or as directed by the authorized Con Edison Inspector based on existing field conditions. Material such as exterior grade plywood or lumber (min. thickness ³/₄") or suitably reinforced plastic sheet material (min. thickness 0.060" – e.g. Norplex Micarta RT504 NEMA Grade G-3) shall be used for this purpose. This shield material shall provide protection for the cable during the remaining conduit removal operation.
- d- After installation of the shield material has been completed, continue removal of remaining conduit
- e- During and after conduit removal operations, cable/conduit shall be properly supported as indicated in Section 5.7, below.

4.5.4 – HDPE Conduit

- a- HDPE conduit shall be split using hand tools or a handheld pneumatic rotary cutting tool. All splitting/cutting actions shall be performed in such a manner so as to be directed across the top of the duct, away from the cable.
- b- Pneumatic Rotary Cutting Tool A pneumatic rotary cutting tool shall be used to score an access area in the surface of the conduit., Prior to application of the cutting tool to the surface of the

conduit, the depth collar on the pneumatic rotary cutting tool shall be set so that the cutting bit will penetrate approximately ³/₄ of the wall thickness of the conduit. After the conduit has been cut to the maximum depth allowable (such that the bit does not fully penetrate the thickness of the conduit), a 3 lb hammer shall be used to knock out the access area (window) outlined by the cutting tool. This will permit visual inspection of the conduit interior for the presence of cable.

- c- If inspection of the interior of the conduit reveals that cable is present, a non-conductive protective shield barrier shall be inserted into the conduit between the conduit and cable. This shield material shall provide protection for the cable during the remaining conduit removal operations. Material such as exterior grade plywood or lumber (min. thickness ³/₄") or suitably reinforced plastic sheet material (min. thickness 0.060" e.g. Norplex Micarta RT504 NEMA Grade G-3) shall be used for this purpose. This shield material shall provide protection for the cable during the remaining conduit removal operations.
- d- If inspection of the conduit interior does not reveal the presence of cable, the remaining conduit may be removed using the tool choices mentioned in 4.5.4.a.

4.5.5 - Metal Conduit

- a. When removing metal conduit, the Municipal Contractor should first excavate and expose a collar connecting two sections of conduit. Once the collar is accessible, split and/or cut the collar off to inspect the conduit interior for the presence of cable. If a metal conduit collar is NOT easily accessible, or found within 20 to 40 feet of open excavation, proceed to section 4.5.5.b. Note: If the work to be performed is in response to a suspected natural gas leak or in the presence of natural gas, only the use of nonpowered hand tools is allowed. Further guidance will be provided by Gas Engineering.
- b. If a collar connecting two sections of conduit cannot be found, metal conduit will be split using hand tools and/or a handheld rotary cutting tool. All splitting actions will be directed across the top of the conduit, away from the cable. Note: If the work to be performed is in response to a suspected natural gas leak or in the presence of natural gas, only the use of non-powered hand tools is allowed. Further guidance will be provided by Gas Engineering.
- c. Score the outline of an access area onto the surface of the conduit. Do not fully penetrate the conduit with the tool while making this outline.
- d. Use this outline as a guide for further splitting and cutting operations that will eventually create a viewing window into the conduit.

- e. If inspection of the conduit interior reveals the presence of cable, insert a non-conductive protective barrier between the cable and conduit wall. The barrier will provide physical protection for the cable during remaining conduit removal operations. Materials including, but not limited to, exterior grade plywood, lumber, and Norplex Micarta are acceptable. After the installation of the non-conductive protective barrier, the removal of the remaining conduit may proceed using the tool choices mentioned in section 5.5.4b.
- f. If inspection of the conduit interior does not reveal the presence of cable, the remaining conduit may be removed using the tool choices mentioned in section 4.5.5b.

4.6 Visual Inspection

- A visual inspection of cables located outside Con Edison structures that will be moved, shall be performed by Electrically Competent Qualified Municipal Contractor personnel or the authorized Con Edison Inspector.
- b- After the conduits have been broken out (removed from the cables), the exposed cable(s) shall be inspected by the Electrically Competent Qualified Municipal Contractor personnel.
- c- The cables shall be visually inspected by the Electrically Competent Qualified Municipal Contractor personnel, and determined to be free from any of the defects that would prevent relocation. Cable(s) shall be free of cracks, tears, and evidence of oil stains, swelling, or melting of the insulation. Cables shall not have any exposed conductor.

4.7 Cable Moving Operations – Outside Structures

- a- Prior to moving any cables outside of a subsurface structure, the cables located within the associated connecting subsurface structures shall be inspected in accordance with the guideline requirements for moving cables within Con Edison sub-structures.
- b- Municipal Contractor personnel experienced in moving Con Edison cables only shall move cables.
- c- Cables shall not be moved until plastic "fair-leaders" are positioned at the duct edges to prevent chaffing damage.
- d- Synthetic web slings having a minimum width of two (2) inches shall support cables that have been removed from conduit. Slings shall be used in a basket hitch configuration.
- e- Conduits housing cables shall be supported using slings, cable, or rope. Conduits shall be supported in such manner as to maintain alignment with one another.
- f- Maximum distance between support points shall be four (4) feet.

- g- To prevent inadvertent over bending of the cables, the maximum vertical or horizontal offset between supports shall be one foot (1') for cable that is supported outside of conduit. For cable that is being moved while still installed in conduit, the conduit shall not be offset more than one foot per four-foot section of conduit.
- h- Each set of cables (cables from one duct/conduit) shall be moved individually. Cables from multiple ducts/conduits shall not be moved as a bundle.
- i- Relocation of cables shall be performed in a careful manner with the movement of cable under complete control at all times. There shall be no sudden movements of the cable or the conduit that contains cable.
- j- An observer shall be positioned so as to determine proper slack in structures and to ensure that joints remain properly supported on rack arms and specified offsets are maintained. This observation shall be performed from outside of the structure while the cable is being moved.
- k- Allowable horizontal and vertical offsets shall be determined based on applicable CET or JB item sketches and/or as directed by the authorized Con Edison Inspector.
- I- Cables shall not be permitted to fall freely from temporary supports.
- m- All cables supported by slings shall be visually inspected at the beginning and end of each work shift to ensure that no cracks, leaks, or other defects have developed.
- n- Cables shall be repositioned with care when being moved into their final position for the installation of split conduit.

4.7.1 Personal Protective Equipment

Municipal Contractor personnel moving Con Edison energized cables shall refer to and comply with applicable OSHA requirements regarding the use of Personal Protective Equipment when performing this work. See Section 3.9 for Matrix on Con Edison's Personal Protective Equipment Guideline.

5.0 Breaking Out a Point of Entry (POE's) in an Electrical Enclosed Space

5.1 Activities Prior to creating POE's

- **5.1.1** Prior to creating POE's, the location of all conduit and cable passing through the section of the wall shall be visually identified and protected inside structure.
- **5.1.2** If any cables are required to be moved prior to creation of a POE, they shall be moved by properly trained and qualified Con Edison electrical personnel.

5.2 Creation of POE Operations

- **5.2.1** Using caution, expose the exterior section of the wall that you intend to create the POE (typically done in 2' deep vertical sections) by carefully excavating on the outside of the structure.
- **5.2.2** When there is a potential for contact between the existing cables that have been visually identified and the tool being used to break out the POE, protect the cables using fire rated wood, phenolic board, cable shields or other acceptable non-conductive materials. Along with protecting the cable from coming in contact with the implement being used for breaking, cables on the walls in the POE area shall also be protected from falling debris using FR wood even if there is no potential for contact with said cables.
- **5.2.3** Once the following conditions have been satisfied:
 - **5.2.3.1** Location of cables inside the structure and the associated conduit outside have been verified.
 - **5.2.3.2** Protection of cable on both the inside and the outside of the structure walls
 - **5.2.3.3** Structural integrity of the proposed POE area has been confirmed using hand tools

Then use the appropriate tool (up to and including a 90 lb. jackhammer) to create the POE on the section of structure wall that was previously prepared.

- **5.2.4** If a jackhammer is being used for the POE breakout operation, where feasible, support the tool from underneath to prevent slippage.
- **5.2.5** Where possible, the use of a 90 lb. jackhammer shall be avoided within 8" of a live conduit. If the competent person determines that the breakout can only be made using a jackhammer within 8" of live conduit, a physical barrier must be placed between the jackhammer and all facilities that could possibly come in contact with the jackhammer. The Municipal Contractor may then begin utilizing the 90 lb. jackhammer using a 3" bit or wider.

December 2021

VERIZON

MIBBNC04A BMP NC-6 BOUNDARY AVENUE BMP NC-15 LACONIA AVENUE STATEN ISLAND Schedule UI: Estimate of Work for CET Items

CET ITEM NUMBER	DESCRIPTION	ESTIMATED OUANTITY
CET 350	OVERHEAD ACCOMMODATION, PROTECTION OF OH FACILITIES & APPURTENANCES	1
CET 351	INSTALL AND REMOVE "A" FRAMES ON UTILITY POLES	2
CET 802A	SPECIAL MODIFICATION OF WORK METHODS FOR INSTALLATION OF NEW SIDEWALKS	280
CET 802B	SPECIAL MODIFICATION OF WORK METHODS FOR INSTALLATION OF NEW CURB	56

12/17/2021

MIBBNC004A sect-u

DECEMBER 2021

	MIBBNC04A BMP NC-6 Boundary Avenue & BMP NC-15 Laconia Avenue Borough of Staten Island Schedule UI: Scope of Work for CET Items	
CET 350	OVERHEAD ACCOMMODATION, PROTECTION OF OH FACILITIES & APPURTENANCES	LS
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	1
	Total quantity for CET 350 📼 1	
CET CET 351	INSTALL AND REMOVE "A" FRAMES ON UTILITY POLES	EA
	At the following locations:	
	AS ENCOUNTERED OR DIRECTED BY VERIZON FIELD REPRESENTATIVE	2
	Total quantity for CET $351 = 2$	
CET 802A	SPECIAL MODIFICATION OF WORK METHODS FOR INSTALLATION OF NEW SIDEWALKS	SF
	At the following locations	
	N S LINCOLN AVENUE 🕊 SANILAC STREET	200
	E/S BOUNDARY AVENUE	80
	Total quantity for CET 802A = 280 SF	
CET 802B	SPECIAL MODIFICATION OF WORK METHODS FOR INSTALLATION OF NEW CURB	LF
	At the following locations:	
	N/S LINCOLN A VENUE 60 SANILAC STREET	40
	E/S BOUNDARY AVENUE @ ZWICKY AVENUE	16

Total quantity for CET 802B = 56 LF

12/17/2021

UI-Pages Revision 10/24/2016

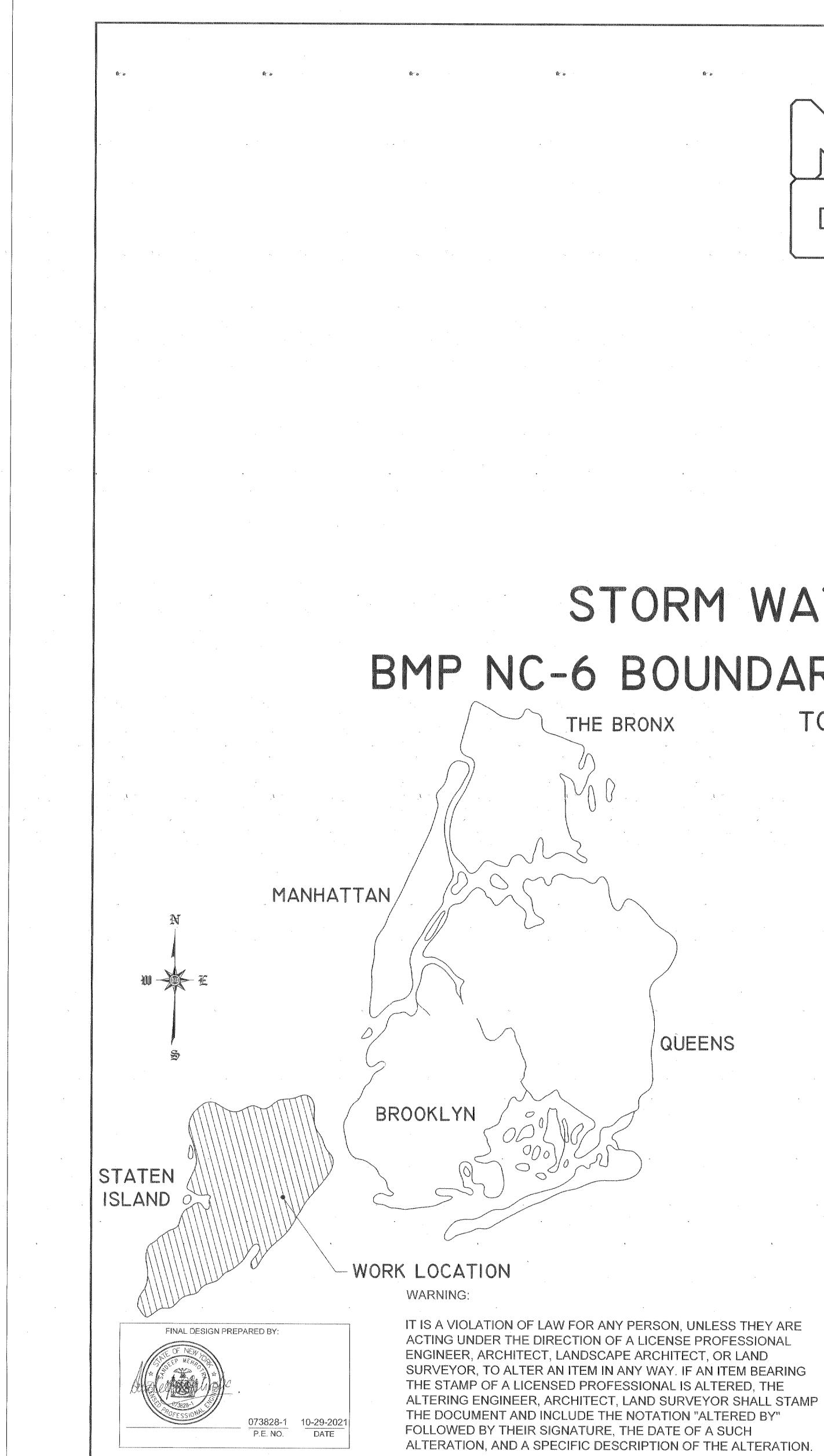
UI-33

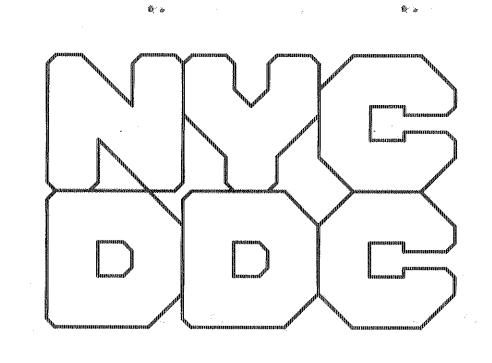
MIBBNC004A sect-u SCOPE OF WORK

VERIZON

END OF UI-PAGES

THE UI-PAGES CONSIST OF THIRTY- FOUR (34) PAGES AND SIX (6) SHEETS OF PRIVATE UTILITY DRAWINGS ARE ATTACHED TO THE CONTRACT PLANS





Department of Design and Construction

\$ \$

DIVISION OF INFRASTRUCTURE BUREAU OF DESIGN

PROJECT ID: MIBBNCOLA

CONSTRUCTION OF STORM WATER BEST MANAGEMENT PRACTICES BMP NC-6 BOUNDARY AVENUE AND BMP NC-15 LACONIA AVENUE TOGETHER WITH ALL WORK INCIDENTAL THERETO

BOROUGH OF STATEN ISLAND

CITY OF NEW YORK

QUEENS

LOCATION PLAN N.T.S. COMMUNITY BOARD NO. 2 ZZZ PROJE

ð - ð		OF CONTENTS
SHEET NO.	DRAWING NO.	DESCRIPTION
1	Τ1	TITLE SHEET TABLE OF CONTEN
. 2	G-1	BMP COVER SHEET WITH LOCAT
3	G-2	BMP DRAWING INDEX, LEGEND,
4-13	C-O THRU C-9	BMP CIVIL DRAWINGS
14-22	S-1 THRU S-9	BMP STRUCTURAL DRAWINGS
23-24	SD-1 THRU SD-2	BMP TYPICAL DETAILS
25-39	SD-C-1 THRU SD-C-15	BMP STANDARD CIVIL DETAILS
40-41	SD-ES-1 THRU SD-ES-2	BMP STANDARD EROSION AND S CONTROL DETAILS
42	SD-L-1	BMP STANDARD LANDSCAPE DE
43-44	SD-SF-1 THRU SD-SF-2	BMP STANDARD STONE FACING
45-46	MPT-1 THRU MPT-2	MAINTENANCE AND PROTECTION
	UI-1 THRU UI-6	SECTION UI (FOR REFERENCE C
	R1 THRU R25	RECORD DRAWINGS (FOR REFER

C MACEARLANE, P.E. EPUTY COMMISSIONER THOMAS WYNNE, P.E. FIRST ASSOCIATE COMMISSIONEP

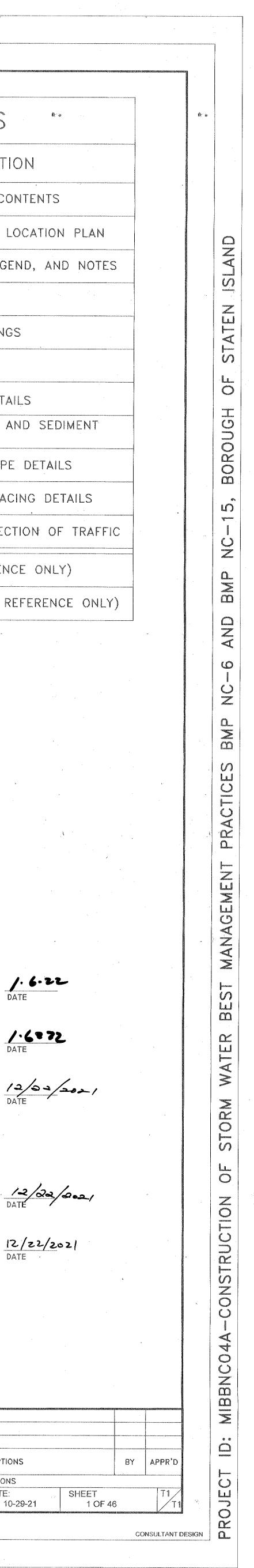
The KLARA SIGAL, P.E. EXECUTIVE DIRECTOR

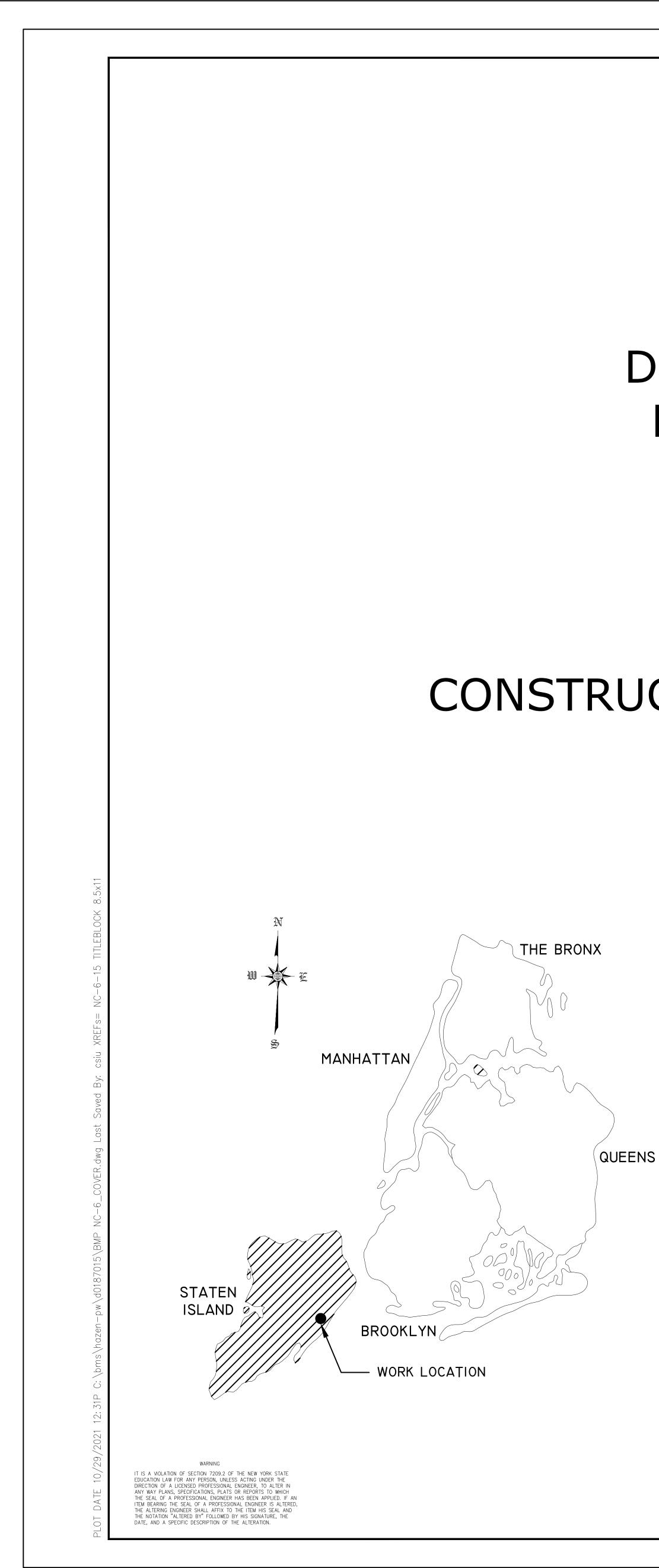
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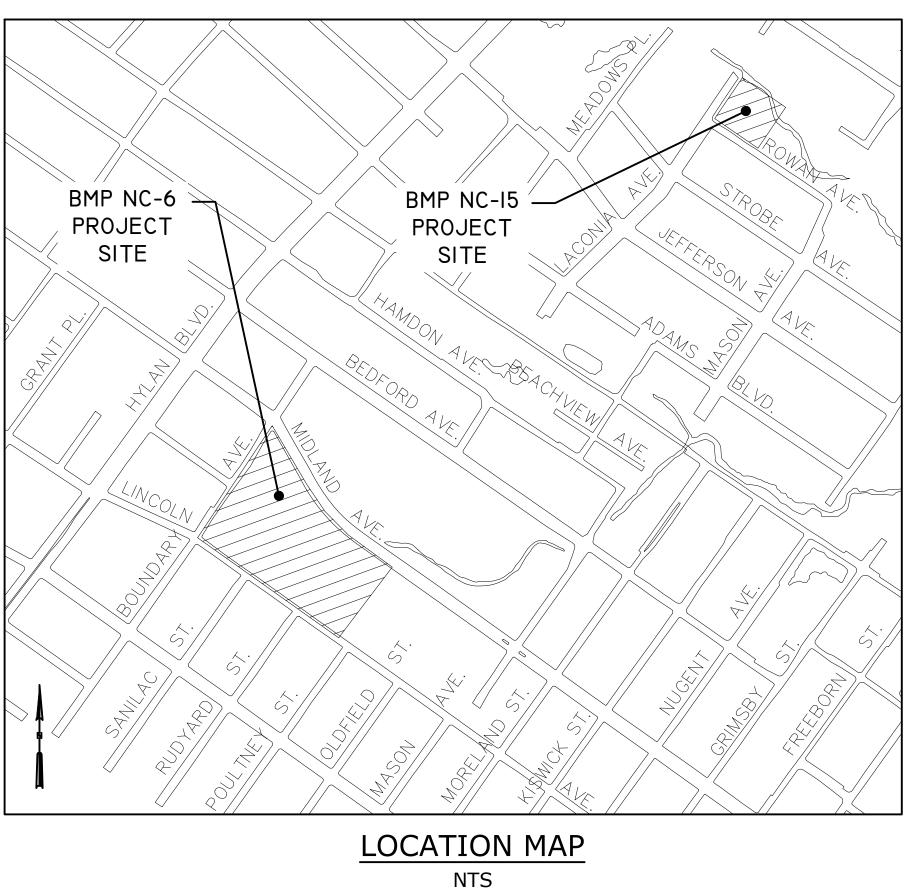


CITY OF NEW YORK DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER AND SEWER OPERATIONS

CAPITAL PROJECT MIBBNC04A BMP NC-6 BOUNDARY AVENUE BMP NC-15 LACONIA AVENUE

CONSTRUCTION OF STORMWATER BEST MANAGEMENT PRACTICES AND ASSOCIATED FACILITIES: NEW CREEK BOROUGH OF STATEN ISLAND

OCTOBER 2021



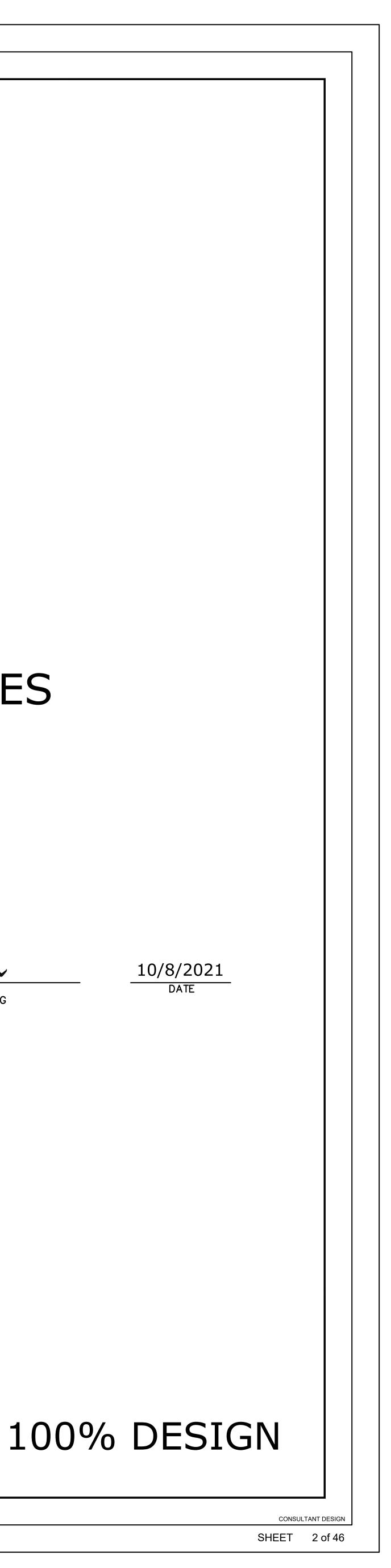
Hazen

HAZEN AND SAWYER

498 SEVENTH AVENUE, 11th FLOOR

NEW YORK, NEW YORK 10018

APPROVED BY:



GENERAL NOTES

TOPOGRAPHIC NOTES:

- 1. ALL ELEVATIONS REFER TO THE BOROUGH OF STATEN ISLAND SEWER DATUM WHICH IS 3.190 FEET ABOVE MEAN SEA LEVEL AS ESTABLISHED BY THE U.S. COAST AND GEODETIC SURVEY AT SANDY HOOK, NEW JERSEY.
- 2. EXISTING TOPOGRAPHIC CONDITIONS OF THE WORK SITE, AS SHOWN ON THE CONTRACT DRAWINGS, ARE OBTAINED FROM THE MOST CURRENT INFORMATION AVAILABLE BUT ARE NOT GUARANTEED TO BE ACCURATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY EXISTING AND PROPOSED GRADES.

UTILITY NOTES:

- 3. EXISTING UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN OR DESCRIBED HEREIN HAVE BEEN DETERMINED BY STANDARD SURVEYING METHODS, FIELD RECONNAISSANCE AND AVAILABLE RECORDS. NEITHER THE EXACT LOCATION NOR THE INFORMATION OF THESE EXISTING UTILITIES IS GUARANTEED TO BE COMPLETE OR CORRECT.
- 4. EXCAVATION AND FILL IN AREAS WHERE UTILITIES ARE PRESENT SHALL BE DONE WITH UTMOST CARE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EXISTING GAS, ELECTRIC, TELEPHONE, COMMUNICATIONS, SEWER, AND WATER LINES. ANY DAMAGE OR INJURY RESULTING FROM THIS OPERATION TO UTILITY LINES SHALL BE REPAIRED IMMEDIATELY AT NO COST TO THE CITY.
- 5. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH UTILITY COMPANIES AND AGENCIES PRIOR TO THE START OF WORK.

EROSION AND SEDIMENT CONTROL:

- 6. THE IMPACTS TO ADJACENT NATURAL AREAS DUE TO EROSION AND SEDIMENTATION FROM SEWER INSTALLATION AND ASSOCIATED BMP CONSTRUCTION WITHIN THIS CONTRACT SHALL NOT BE ANY GREATER DURING AND FOLLOWING LAND DISTURBANCE ACTIVITIES THAN UNDER PRE-CONSTRUCTION CONDITIONS.
- 7. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED PRIOR TO BEGINNING ANY LAND DISTURBANCES AS REQUIRED BY THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN. ALL RUNOFF FROM DISTURBED AREAS SHALL BE DIRECTED TO THE SEDIMENT CONTROL DEVICES. THESE DEVICES SHALL NOT BE REMOVED UNTIL THE DISTURBED LAND AREAS ARE STABILIZED.
- 8. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", 2005, OR LATEST EDITION.

GENERAL:

- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL ITEMS REQUIRED TO COMPLETE ALL WORK ACCORDING TO PLANS AND SPECIFICATIONS.
- 10. SLOPE, X:Y, \overbrace{X}^{Y}
- 11. CONTRACTOR SHALL REPLACE ANY LOST OR DAMAGED SIGNS.
- 12. CONTRACTOR SHALL REPAINT ROADMARKINGS AFTER COMPLETION OF WORK.
- 13. SIGN LOCATIONS (AS SHOWN ON THE CONTRACT DRAWINGS) ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
- 14. NYCDDC HAS MULTIPLE SIMULTANEOUS CONSTRUCTION CONTRACTS BEING EXECUTED IN THE VICINITY OF THIS CONTRACT, INCLUDING SANDRO1 AND MIBBNC003. THE PROJECT AREAS FOR SANDRO1 AND MIBBNC003 ARE SHOWN ON THE LOCATION MAP ON THIS SHEET. THE CONTRACTOR MUST NOT STORE ANY MATERIALS OR EQUIPMENT IN THESE AREAS, WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER. ACCORDINGLY, THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE OTHER CONTRACTORS AS SPECIFIED IN ARTICLE 12 OF THE STANDARD CONSTRUCTION CONTRACT.

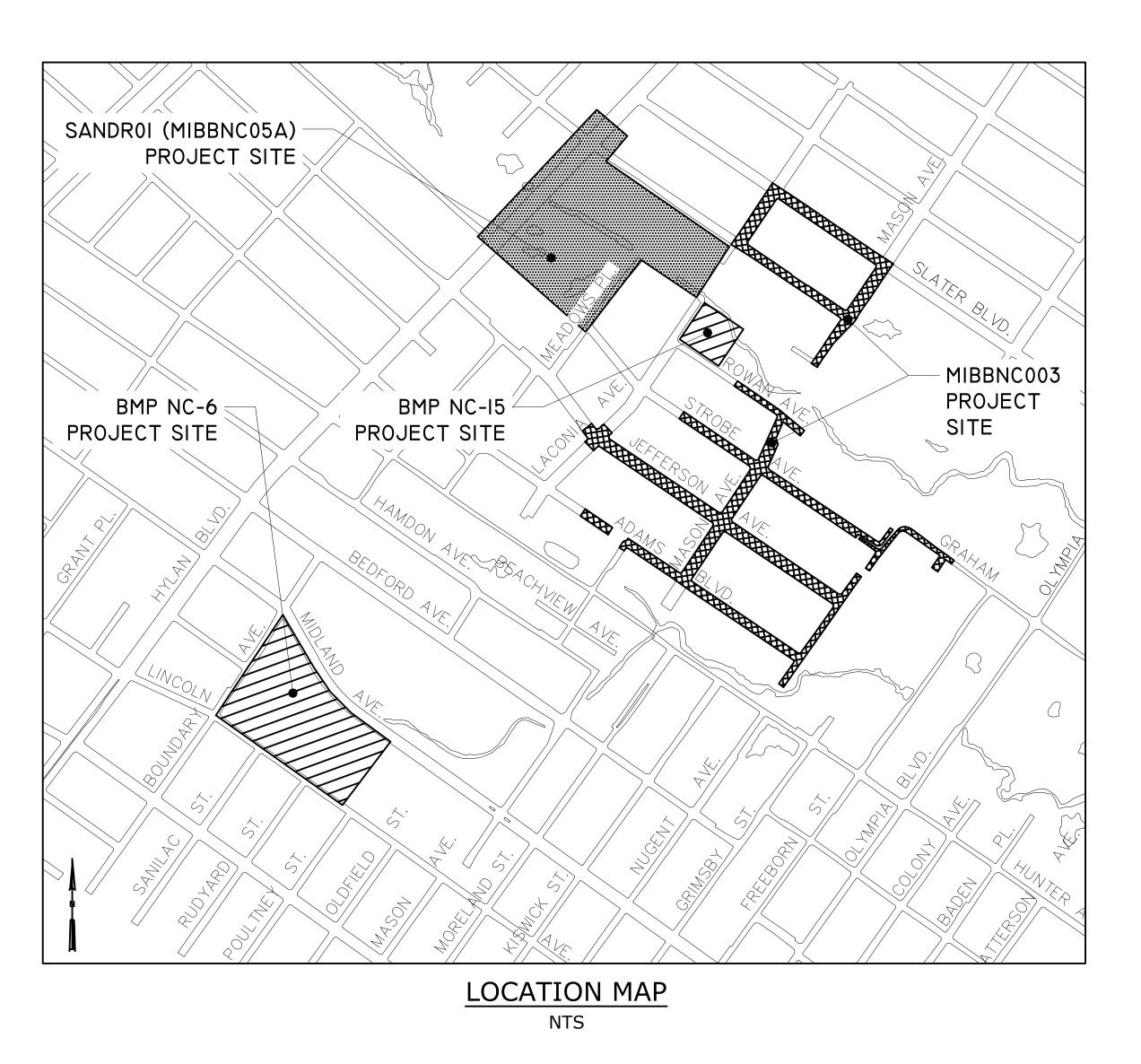
IT IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK STATE
EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE
DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER IN
ANY WAY PLANS, SPECIFICATIONS, PLATS OR REPORTS TO WHICH
THE SEAL OF A PROFESSIONAL ENGINEER HAS BEEN APPLIED. IF AI
ITEM BEARING THE SEAL OF A PROFESSIONAL ENGINEER IS ALTERED
THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND
THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE. THE
DATE, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

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DRAWING LIST

SHEET NO.	DRAWING NO.	SHEET TITLE
		GENERAL
1	G-1	COVER SHEET WITH LOCATION MAP
2	G-2	DRAWING INDEX, LEGEND, AND NOTES
3	C-0	NC-6 EXISTING HABITATS
4	C-1	NC-6 EROSION AND SEDIMENT CONTROL
5	C-2	NC-6 FINAL SITE PLAN
6	C-3	NC-6 GEOMETRY PLAN
7	C-4	NC-6 PROFILES
8	C-5	NC-6 CROSS-SECTIONS
9	C-6	NC-6 LANDSCAPING PLAN
10	C-7	NC-15 EROSION AND SEDIMENT CONTROL
11	C-8	NC-15 FINAL SITE PLAN, GEOMETRY PLAN, AND PROFILE
12	C-9	NC-15 LANDSCAPING PLAN
		STRUCTURAL
13	S-1	GENERAL NOTES
14	S-2	NC-6 CONCRETE HEADWALLS PLANS
15	S-3	NC-6 CONCRETE HEADWALLS SECTIONS AND DETAILS
16	S-4	NC-6 CONCRETE HEADWALL PLAN AND SECTION
17	S-5	NC-6 WEIR CHAMBER PLAN, SECTIONS AND DETAILS
18	S-6	NC-6 WEIR CHAMBER PLAN, SECTIONS AND DETAILS
19	S-7	NC-6 JUNCTION CHAMBER BOTTOM AND TOP PLANS
20	S-8	NC-6 JUNCTION CHAMBER SECTION AND DETAILS
21	S-9	NC-6 JUNCTION CHAMBER CONSTRUCTION SEQUENCE
22	SD-1	STANDARD DETAILS
23	SD-2	STANDARD DETAILS CONTINUED









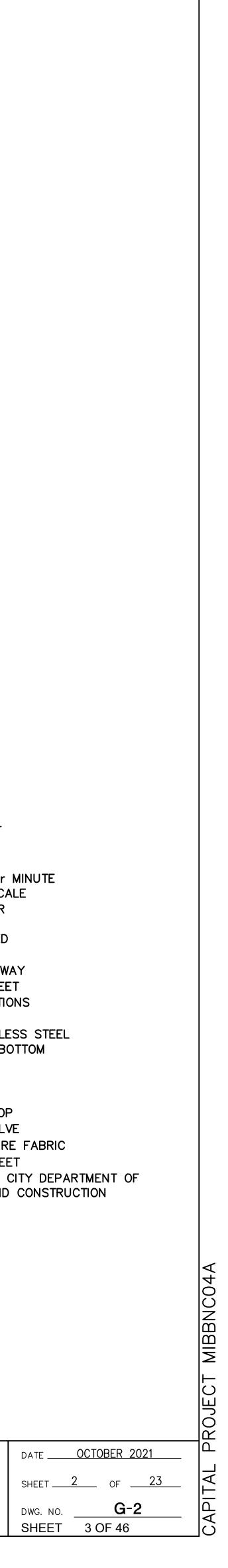
<u>LEGEND</u> *

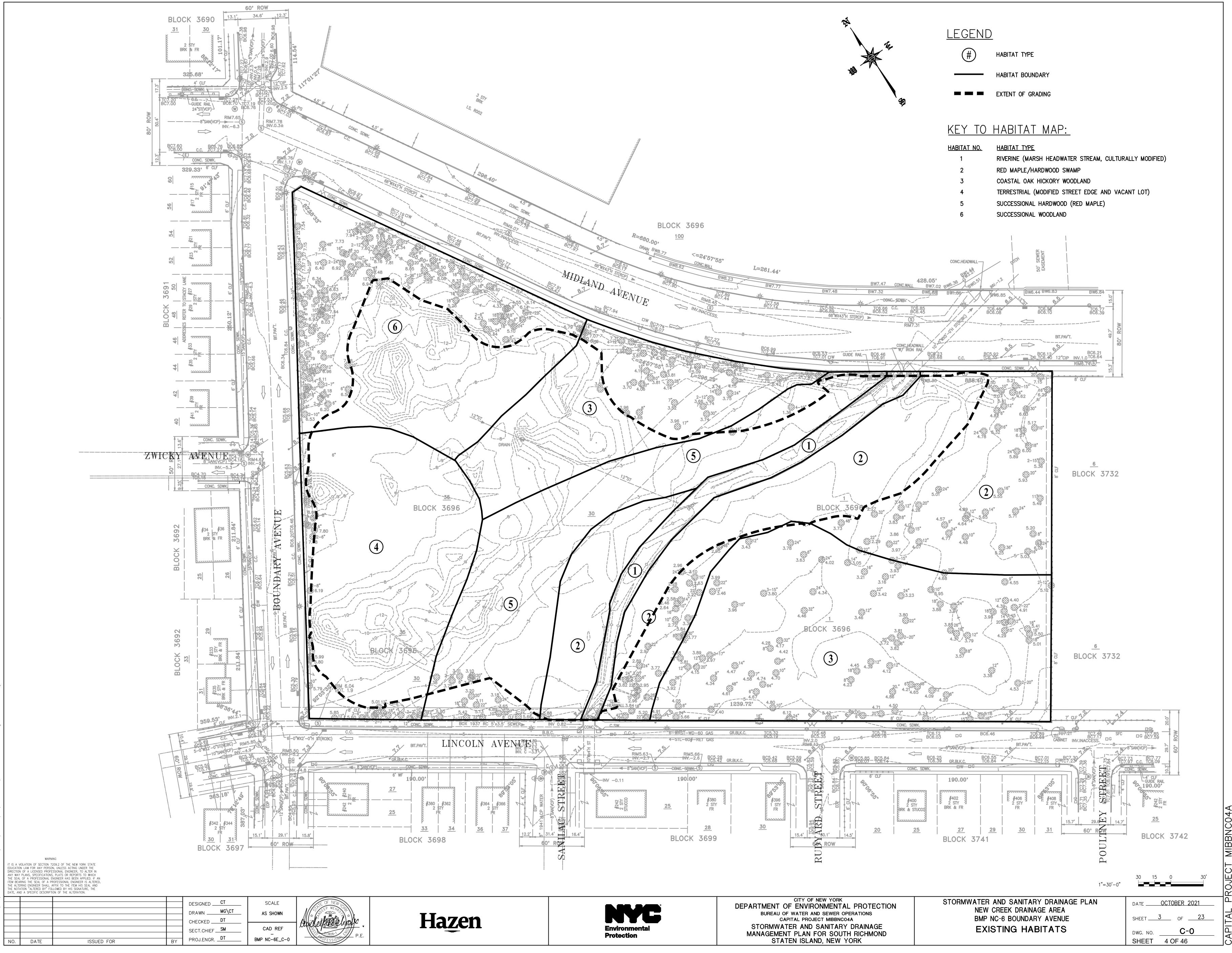
oo	CONSTRUCTION LIMIT FENCE
<i>111</i>	REINFORCED SILT FENCE
	STABILIZED CONSTRUCTION ENTRANCE
	OBJECT TO BE REMOVED
\otimes	TREE TO BE REMOVED
	TREE TO BE SAVED
	"ADOPT-A-BLUEBELT" SIGN
	NEW CREEK BLUEBELT SIGN
\diamond	BMP IDENTIFICATION SIGN
٥	REMOVABLE BOLLARD
	GUIDE RAIL TERMINAL SECTION
	BLUEBELT SURVEY MONUMENT
oo	GUIDE RAIL

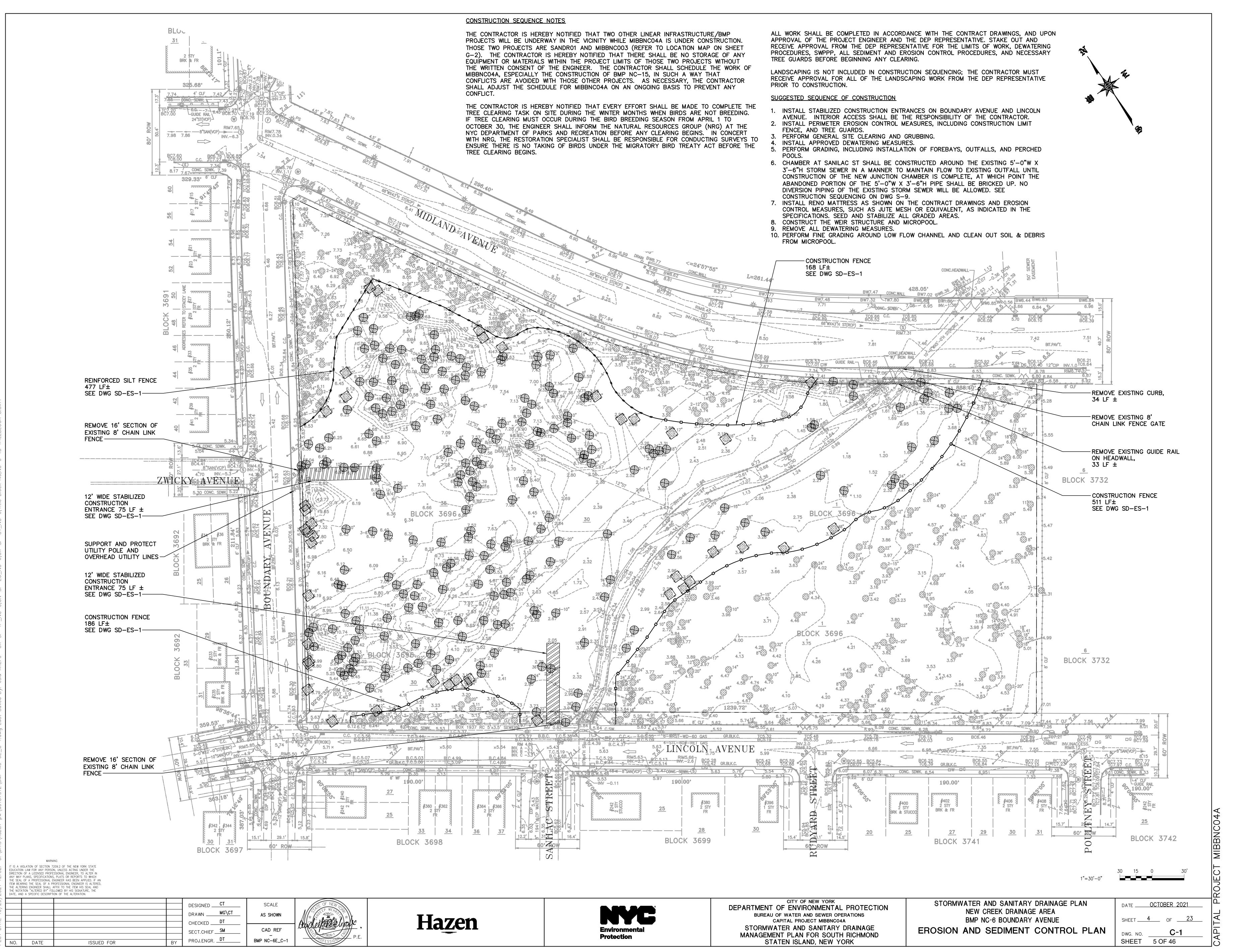
 \ast THIS LIST IS EXCLUSIVE OF PLANTING ZONES, WHICH ARE AS SHOWN ON THE INDIVIDUAL PLANTING PLANS.

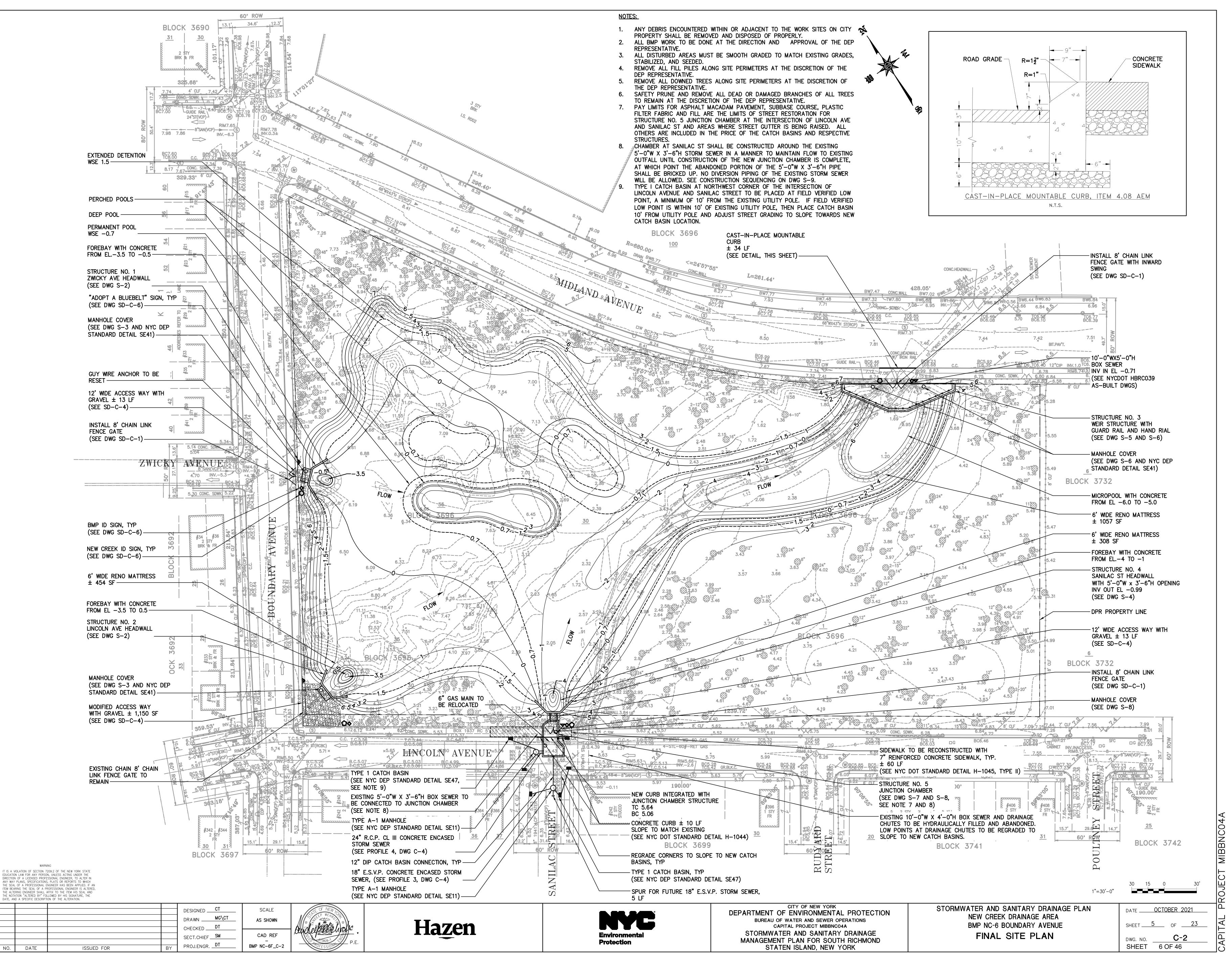
ABBREVIATIONS

APP'D ASPH B&B BMP C to C CAL CB CI CJ CONC D ₅₀ or d ₅₀ DIA DWG EA EF	APPROVED ASPHALT BALLED & BURLAPPED BEST MANAGEMENT PRACTICE CENTER TO CENTER CALIPER CATCH BASIN CAST IRON CONSTRUCTION JOINT CONCRETE RIP-RAP SIZE DIAMETER DRAWING EACH EACH FACE	INV JT LBS LL LP or LPT MAX MH MIN NTS OC OPN'G REINF REQ'D ROW SF SPECS	INVERT JOINT POUNDS LIVE LOAD LOW POINT MAXIMUM MAN HOLE MINIMUM or NOT TO SCA ON CENTER OPENING REINFORCED REQUIRED RIGHT OF WA SQUARE FEE SPECIFICATIO
EL ESVP EW EXP FTRC GAL GALV H HP or HPT HYD IN2 LF	ELEVATION EXTRA STRENGTH VITRIFIED PIPE EACH WAY EXPAND OR EXPOSED FLAT TOP REINFORCED CONCRETE GALLONS GALVANIZED HIGH HIGH POINT HYDRANT SQUARE INCHES LINEAR FEET	SQ SS or SST T&B TYP VERT W WS WV WWF SF NYC DDC	SQUARE 316 STAINLES TOP AND BO TYPICAL VERTICAL WIDE WATER STOP WATER VALV WELDED WIRE SQUARE FEE NEW YORK C DESIGN AND

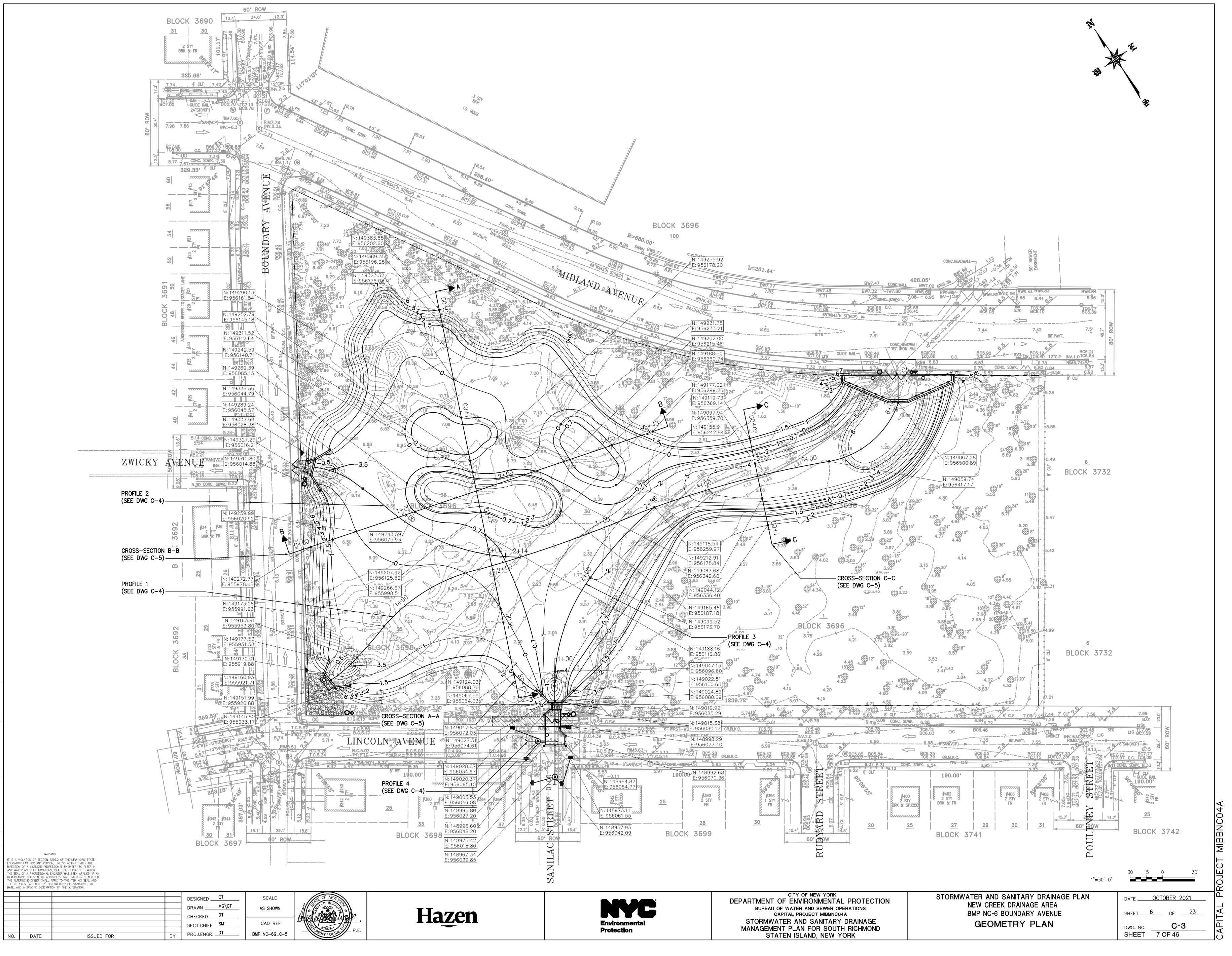




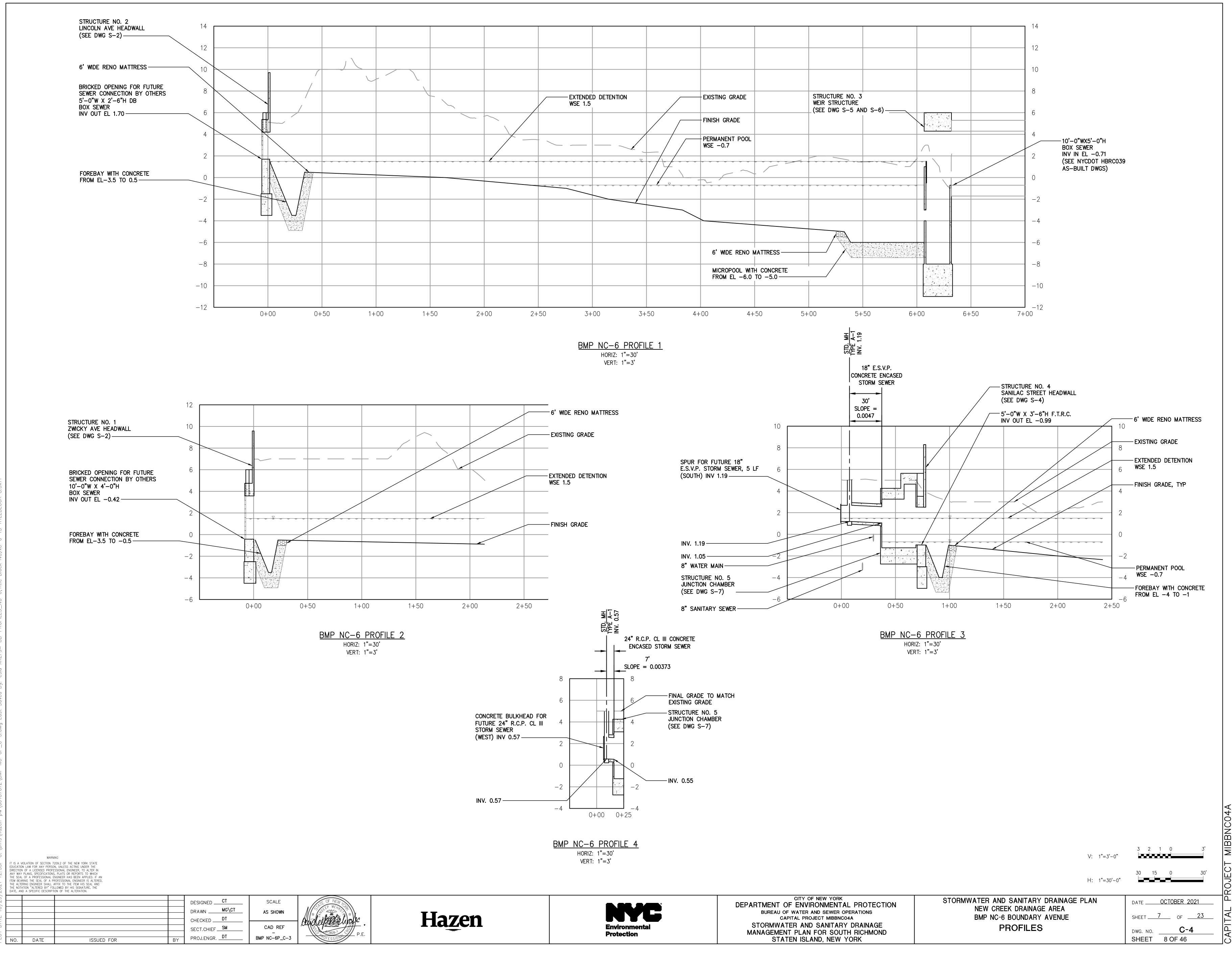




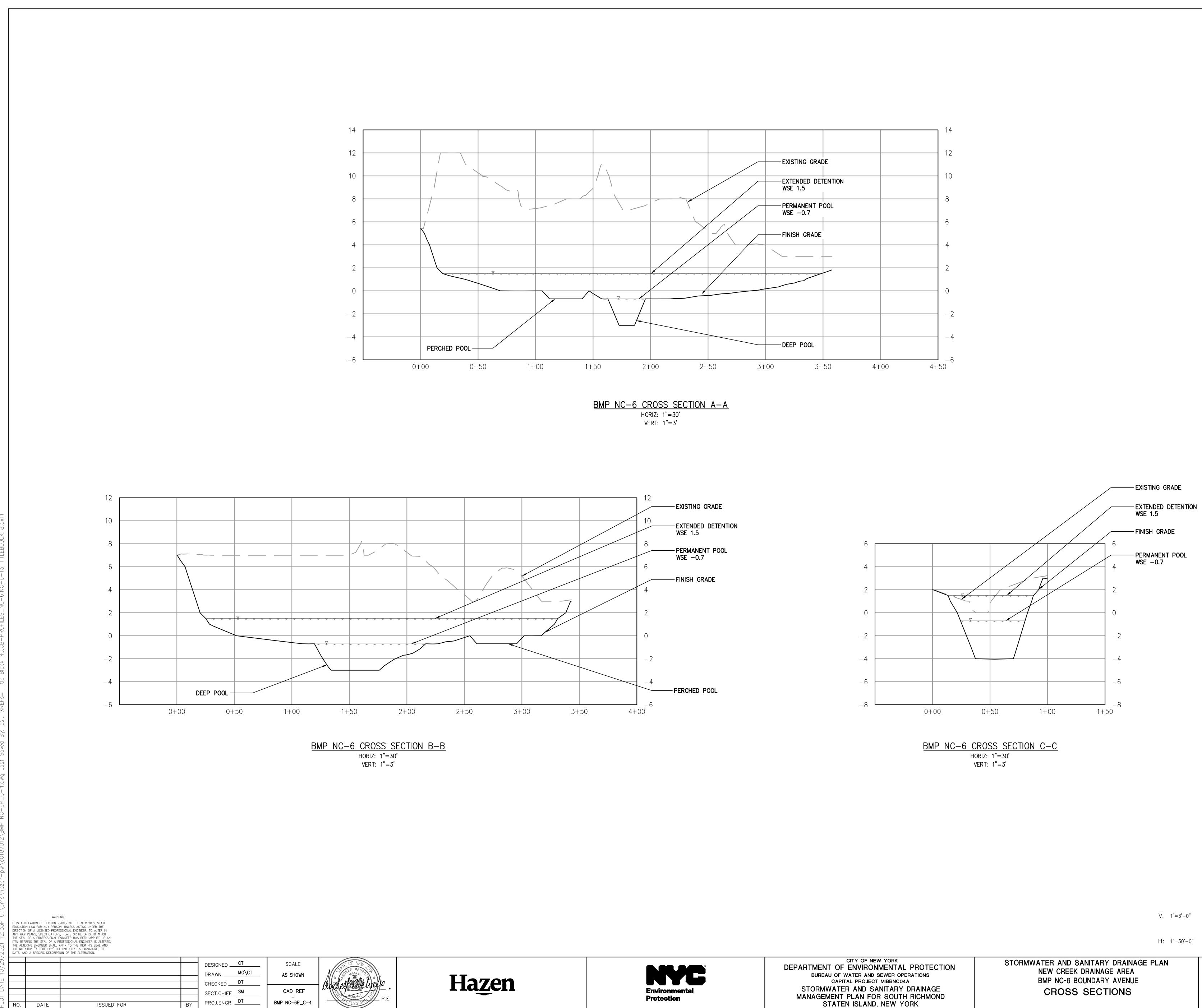
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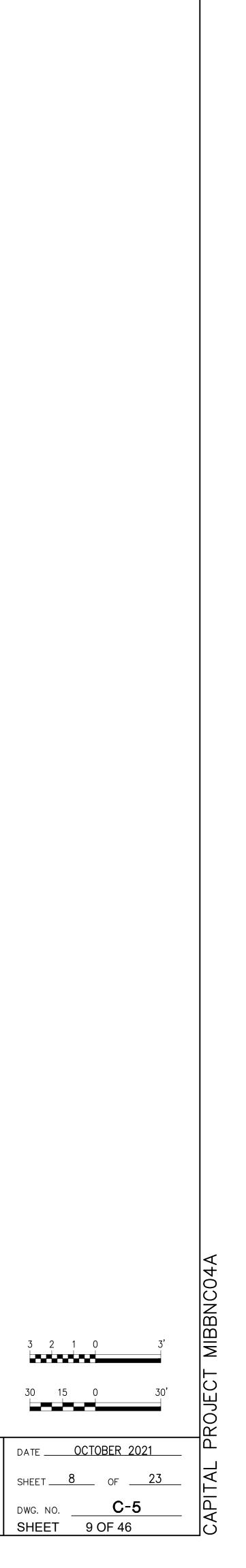


DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER AND SEWER OPERATIONS
CAPITAL PROJECT MIBBNC04A
STORMWATER AND SANITARY DRAINAGE
MANAGEMENT PLAN FOR SOUTH RICHMOND
STATEN ISLAND NEW YORK





CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER AND SEWER OPERATIONS
CAPITAL PROJECT MIBBNC04A
STORMWATER AND SANITARY DRAINAGE
MANAGEMENT PLAN FOR SOUTH RICHMOND
STATEN ISLAND NEW VODK

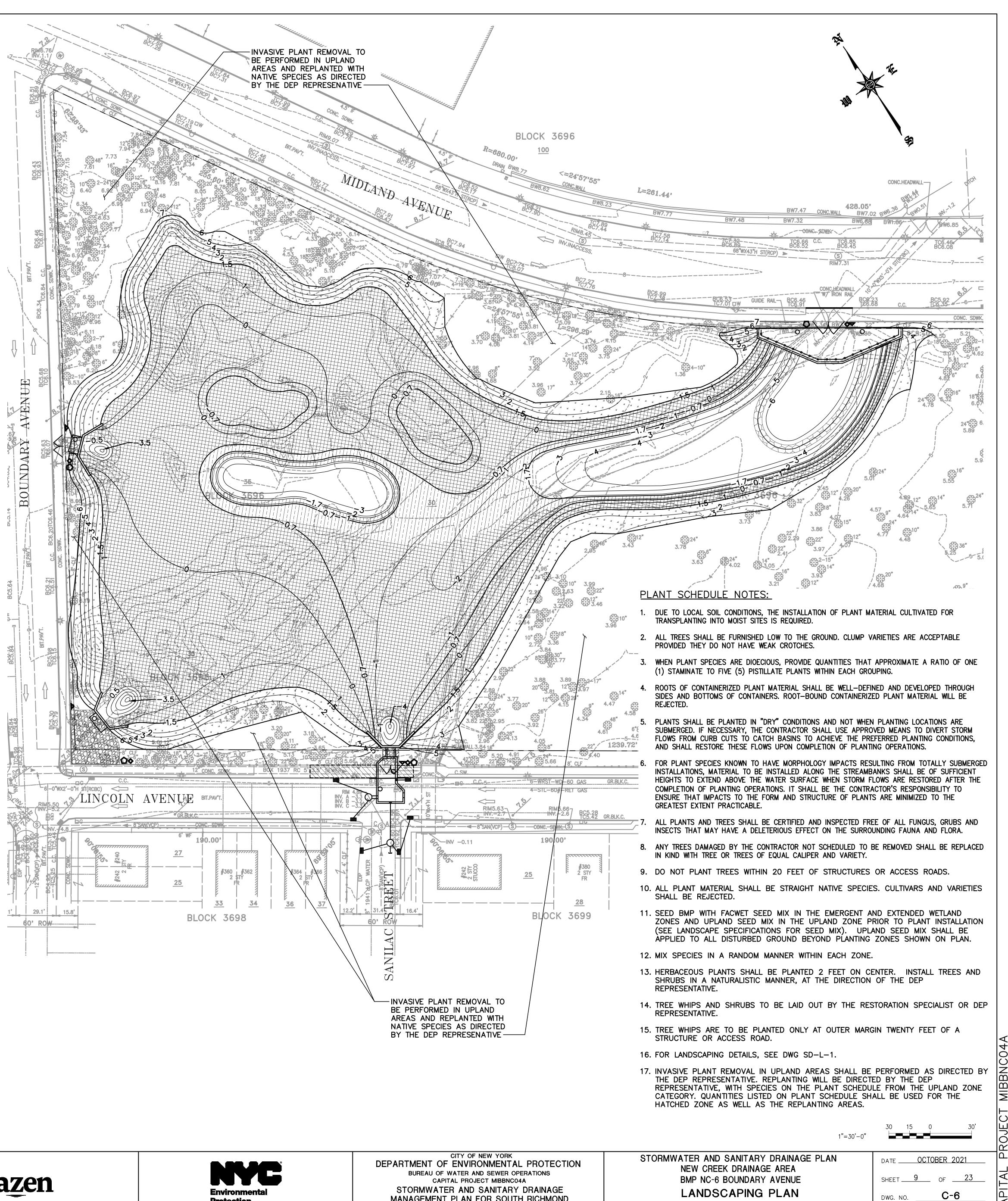


KEY	BOTANICAL NAME	COMMON NAME	QTY	SIZE	FORM	REMARKS
	<u>WETLAND EMERGENT ZONE</u> (EL1.70.7)					INSTALL EMERGENT PLANTS 2.0 ON CENTER
	Schoenoplecuts tabernaemontani	softstem bulrush	350	2" or DP50	plug	
	Peltandra virginica	green arrow arum	350	2" or DP50	plug	
	Pontederia cordata	pickerel weed	400	2" or DP50	plug	
	Sagittaria latifolia	broadleaf arrowhead	250	2" or DP50	plug	
	Hibiscus moscheutos	crimsoneyed rosemallow	300	2" or DP50	plug	PLANT ALONG EDGE OF WATER
	Sauruus cernuus	lizard's tail	300	2" or DP50	plug	
	Eleocharis obtusa	blunt spikerush	200	2" or DP50	plug	
	Sparganium eurycarpum	great bur-reed	250	2" or DP50	plug	
	EXTENDED DETENTION ZONE (EL0.7 - +1.5)					INSTALL TRANSITIONAL PLANTS 3.0' ON CENTER
<u> </u>	Juncus effusus	soft rush	800	2" or DP50	plug	
	Aster novae-angliae	new england aster	700	2" or DP50	plug	
	Leersia oryzoides	rice cutgrass	850	2" or DP50	plug	
	Lobelia cardinalis	cardinal flower	400	2" or DP50	plug	
	Iris versicolor	blueflag iris	450	2" or DP50	plug	PLANT ALONG EDGE OF WATER
	Aslcepius incarnata	swamp milkweed	750	2" or DP50	plug	
	Verbena hastata	swamp verbena	800	2" or DP50	plug	
	Scirpus cyperinus	woolgrass	750	2" or DP50	plug	
	Vernonia noveboracensis	New York ironweed	750	2" or DP50	plug	
	Carex hystricina	porcupine sedge	600	2" or DP50	plug	PLANT LOW
	Panicum virgatum	switchgrass	1300	2" or DP50	plug	
	Carex vulpinodea	fox sedge	850	2" or DP50	plug	
		5				
ψ ψ ψ						INSTALL UPLAND HERBACEOUS
Ψ Ψ Ψ Ψ Ψ Ψ	UPLAND ZONE (EL. 1.5 +)					PLANTS 2.0' ON CENTER
	HERBACEOUS					
	Panicum virgatum	switchgrass	500	2" or DP50	plug	
	Ageratina altissima	white snakeroot	550	2" or DP50	plug	
	Carex pennsylcanicum	Pennsylvania sedge	375	2" or DP50	plug	PLANT IN SHADED AREAS
	Parthenocissus quinquefolia	Virginia creeper	150	2" or DP50	plug	
	Symphyotrichum novi-belgii	New York aster	350	2" or DP50	plug	
	Euthamia graminifolia	lance leaved goldenrod	350	2" or DP50	plug	
	Solidago canadansis	Canada goldenrod	550	2" or DP50	plug	
	Asclepias syriaca	common milkweed	400	2" or DP50	plug	
	Elymus virginicus	Virginia wild rye	400	2" or DP50	plug	
	Monarda fistulosa	wild bergamont	350	2" or DP50	plug	
	Schizachyrium scoparium	little bluestem	350	2" or DP50	plug	
	Dennstaedtia punctilobula	eastern hay scented fern	150	2" or DP50	plug	
	SHRUBS					INSTALL UPLAND SHRUBS 3.0' C
	Viburnum dentatum	southern arrowwood	52	2 - 3' tall	container	
	Viburnum nudum	with-rod	32	2 - 3' tall	container	
	Lindera benzoin	spicebush	38	2 - 3' tall	container	
	Photinia pyrifolia	red chokeberry	38	2 - 3' tall	container	
	Cornus amomum	silky dogwood	48	2 - 3' tall	container	PLANT LOW
	Clethra alnifolia	summersweet	42	2 - 3' tall	container	WHITE FLOWER ONLY
	TREES					
	Quercus bicolor	swamp white oak	18	1" cal	container	
	Quercus alba	white oak	22	1" cal	container	
	Carya ovata	shagbark hickory	15	1" cal	container	
	Fagus grandifolia	American beech	20	1" cal	container	
	Nyssa sylvatica	black gum	18	1" cal	container	
		Laway hinah	22	1" cal	container	1
	Betula populifolia	gray birch	<i>LL</i>			
	Betula populifolia Cornus florida	eastern flowering dogwood	16	1" cal	container	WHITE FLOWER ONLY

T IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK STATE IT IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER IN ANY WAY PLANS, SPECIFICATIONS, PLATS OR REPORTS TO WHICH THE SEAL OF A PROFESSIONAL ENGINEER HAS BEEN APPLIED. IF AN ITEM BEARING THE SEAL OF A PROFESSIONAL ENGINEER IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE, THE DATE AND A SPECIELO ESCRIPTION OF THE ALTERATION

WARNING

		ION OF THE ALTERATION.				
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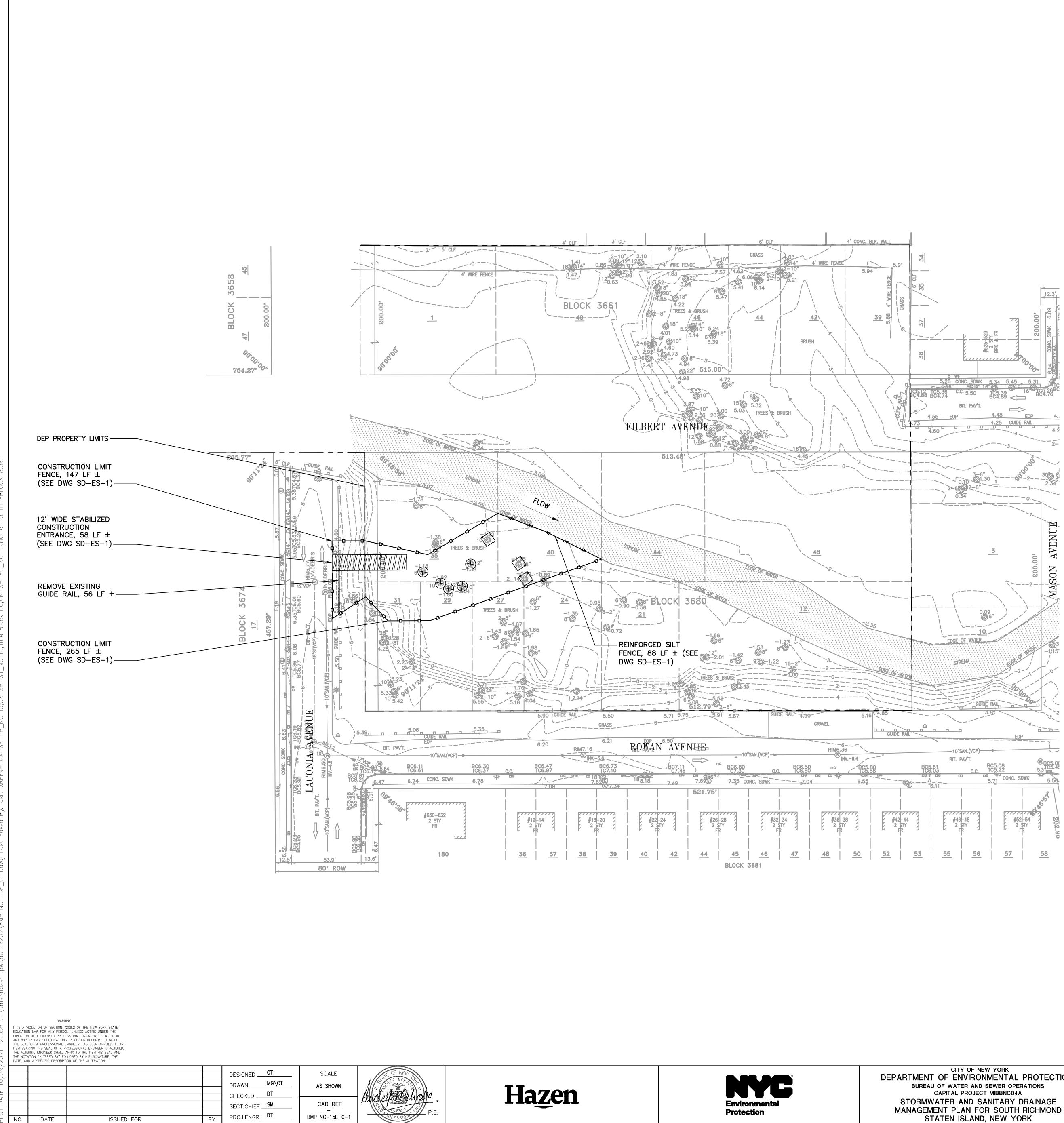






MANAGEMENT PLAN FOR SOUTH RICHMOND STATEN ISLAND, NEW YORK

SHEET 10 OF 46



CONSTRUCTION SEQUENCE NOTES

THE CONTRACTOR IS HEREBY NOTIFIED THAT TWO OTHER LINEAR INFRASTRUCTURE/BMP PROJECTS WILL BE UNDERWAY IN THE VICINITY WHILE MIBBNC04A IS UNDER CONSTRUCTION. THOSE TWO PROJECTS ARE SANDRO1 AND MIBBNCOO3 (REFER TO LOCATION MAP ON SHEET G-2). THE CONTRACTOR IS HEREBY NOTIFIED THAT THERE SHALL BE NO STORAGE OF ANY EQUIPMENT OR MATERIALS WITHIN THE PROJECT LIMITS OF THOSE TWO PROJECTS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE CONTRACTOR SHALL SCHEDULE THE WORK OF MIBBNC04A, ESPECIALLY THE CONSTRUCTION OF BMP NC-15, IN SUCH A WAY THAT CONFLICTS ARE AVOIDED WITH THOSE OTHER PROJECTS. AS NECESSARY, THE CONTRACTOR SHALL ADJUST THE SCHEDULE FOR MIBBNC04A ON AN ONGOING BASIS TO PREVENT ANY CONFLICT.

ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE CONTRACT DRAWINGS, AND UPON APPROVAL OF THE PROJECT ENGINEER AND THE DEP REPRESENTATIVE. STAKE OUT AND RECEIVE APPROVAL FROM THE DEP REPRESENTATIVE FOR THE LIMITS OF WORK, DEWATERING PROCEDURES, SWPPP, ALL SEDIMENT AND EROSION CONTROL PROCEDURES, AND NECESSARY TREE GUARDS BEFORE BEGINNING ANY CLEARING.

LANDSCAPING IS NOT INCLUDED IN CONSTRUCTION SEQUENCING; THE CONTRACTOR MUST RECEIVE APPROVAL FOR ALL OF THE LANDSCAPING WORK FROM THE DEP REPRESENTATIVE PRIOR TO CONSTRUCTION.

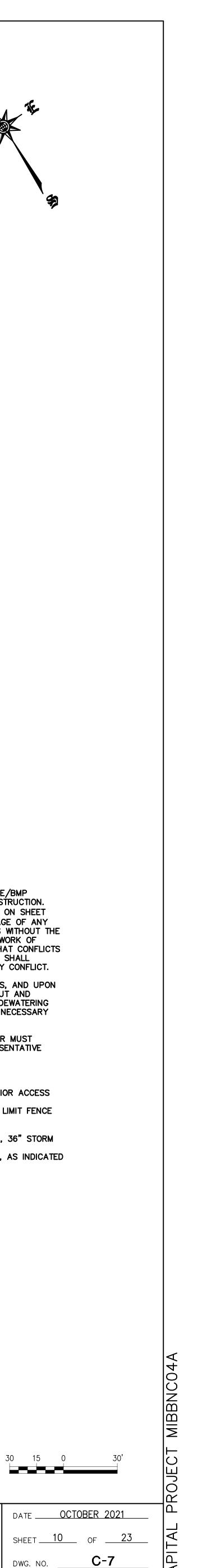
SUGGESTED SEQUENCE OF CONSTRUCTION

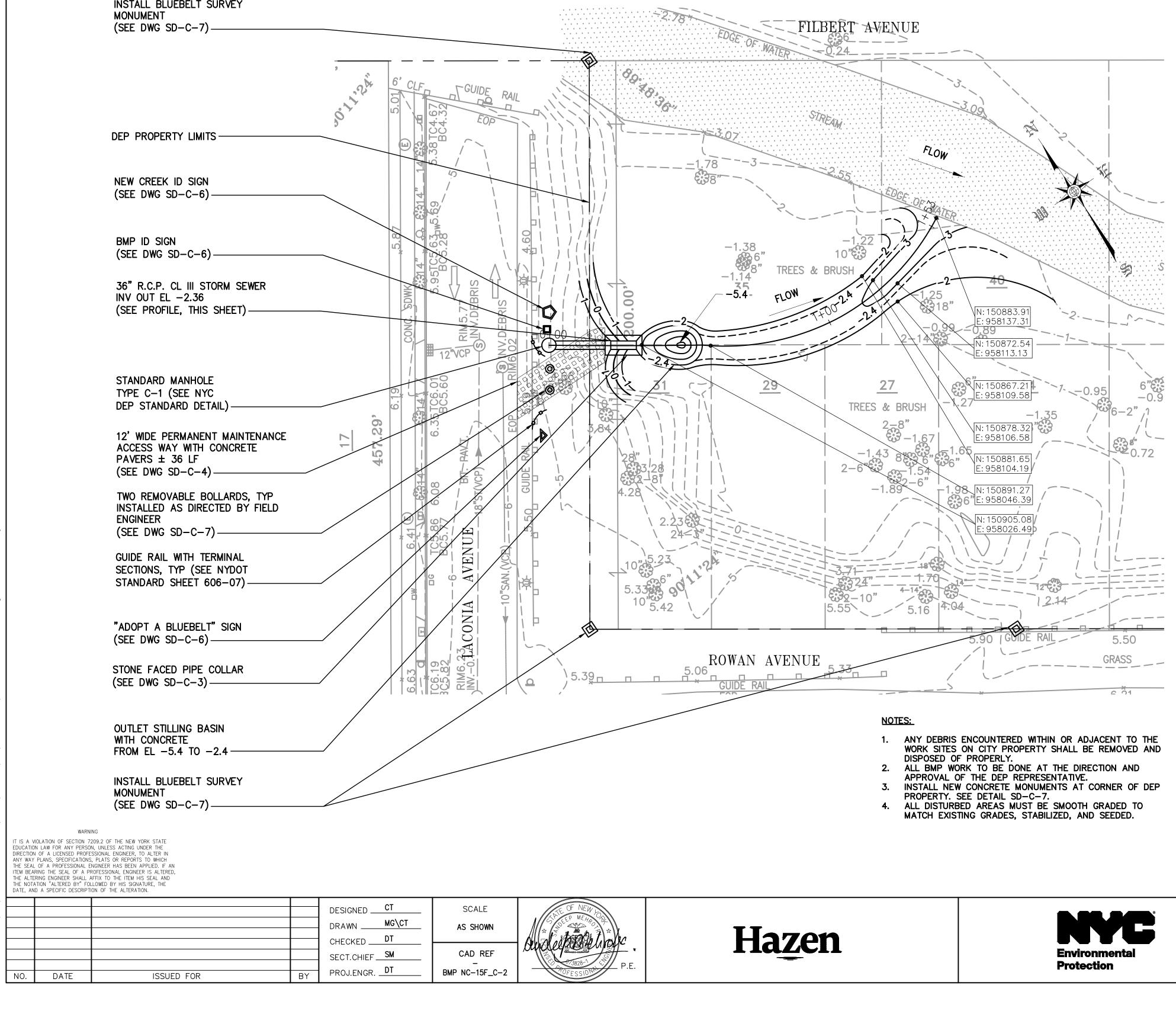
- 1. INSTALL STABILIZED CONSTRUCTION ENTRANCES ON LACONIA AVENUE. INTERIOR ACCESS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 2. INSTALL PERIMETER EROSION CONTROL MEASURES, INCLUDING CONSTRUCTION LIMIT FENCE AND TREE GUARDS.
- 3. REMOVE GUIDE RAIL AND PERFORM GENERAL SITE CLEARING AND GRUBBING. 4. PERFORM GRADING AND INSTALL OUTLET STRUCTURE, OUTLET STILLING BASIN, 36" STORM
- SEWER AND MANHOLE. 5. INSTALL EROSION CONTROL MEASURES, SUCH AS JUTE MESH OR EQUIVALENT, AS INDICATED IN THE SPECIFICATIONS. SEED AND STABILIZE ALL GRADED AREAS.

DEPARTMENT OF ENVIRONMENTAL PROTECTION MANAGEMENT PLAN FOR SOUTH RICHMOND

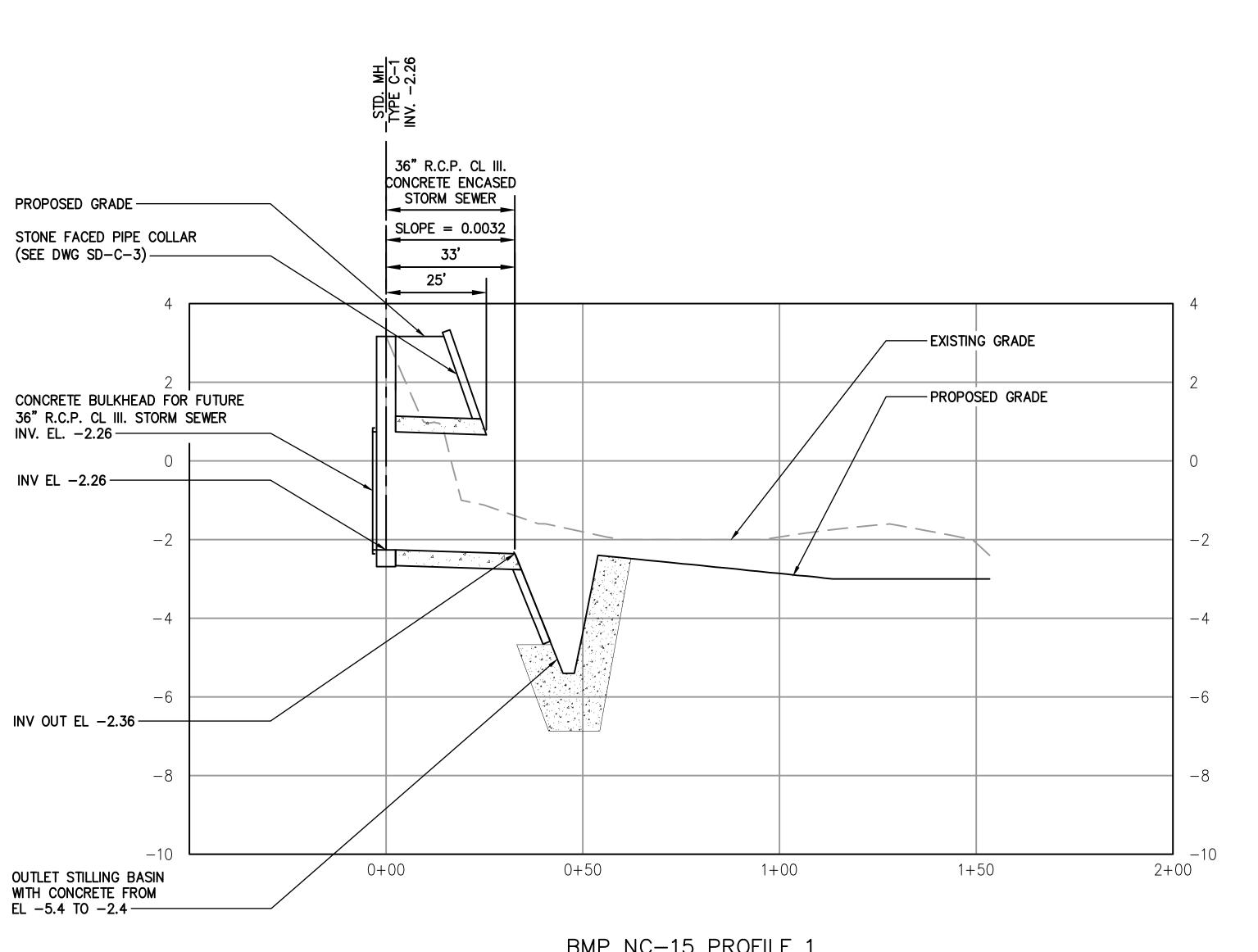
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SHEET 11 OF 46





INSTALL BLUEBELT SURVEY

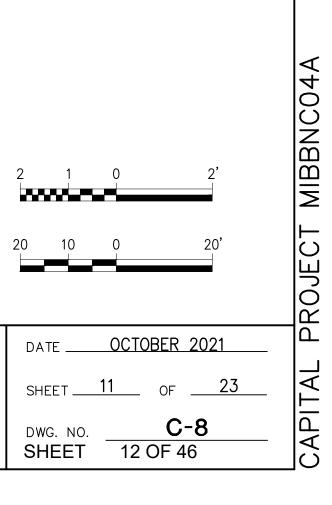


BMP NC-15 PROFILE 1 HORIZ: 1"=20' VERT: 1"=2'

V: 1"=2'−0"

H: 1"=20'-0"

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER AND SEWER OPERATIONS
CAPITAL PROJECT MIBBNC04A
STORMWATER AND SANITARY DRAINAGE
MANAGEMENT PLAN FOR SOUTH RICHMOND
STATEN ISLAND, NEW YORK

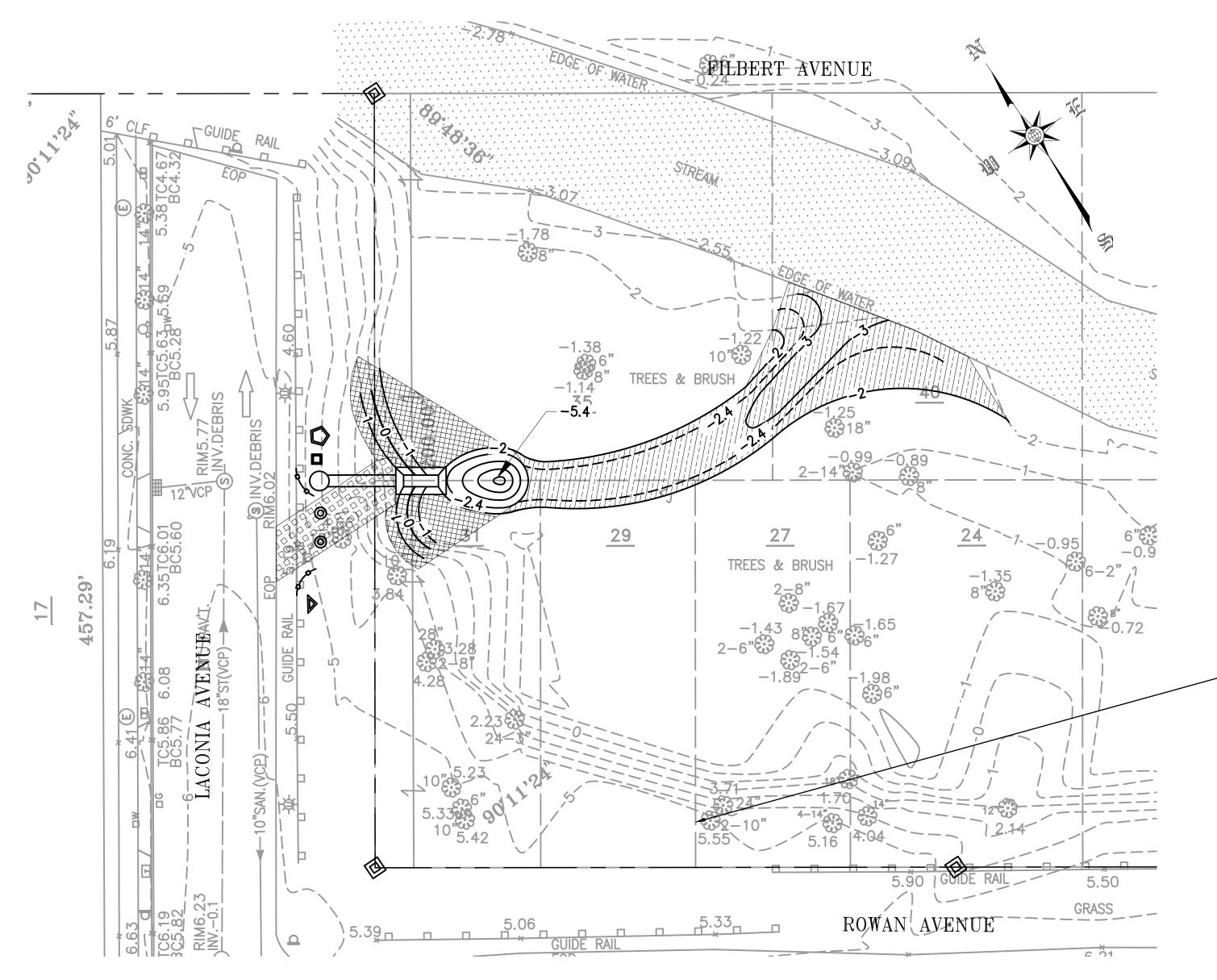


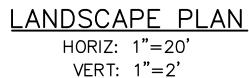
WARNING

PLANT SCHEDULE NOTES:

- TRANSPLANTING INTO MOIST SITES IS REQUIRED.
- PROVIDED THEY DO NOT HAVE WEAK CROTCHES.
- (1) STAMINATE TO FIVE (5) PISTILLATE PLANTS WITHIN EACH GROUPING.
- REJECTED.
- GREATEST EXTENT PRACTICABLE.
- IN KIND WITH TREE OR TREES OF EQUAL CALIPER AND VARIETY.
- SHALL BE REJECTED.
- 12. MIX SPECIES IN A RANDOM MANNER WITHIN EACH ZONE.
- REPRESENTATIVE.
- REPRESENTATIVE.
- 15. FOR LANDSCAPING DETAILS, SEE DWG SP-L-1.

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1. DUE TO LOCAL SOIL CONDITIONS, THE INSTALLATION OF PLANT MATERIAL CULTIVATED FOR

2. ALL TREES SHALL BE FURNISHED LOW TO THE GROUND. CLUMP VARIETIES ARE ACCEPTABLE

3. WHEN PLANT SPECIES ARE DIOECIOUS, PROVIDE QUANTITIES THAT APPROXIMATE A RATIO OF ONE

4. ROOTS OF CONTAINERIZED PLANT MATERIAL SHALL BE WELL-DEFINED AND DEVELOPED THROUGH SIDES AND BOTTOMS OF CONTAINERS. ROOT-BOUND CONTAINERIZED PLANT MATERIAL WILL BE

5. PLANTS SHALL BE PLANTED IN "DRY" CONDITIONS AND NOT WHEN PLANTING LOCATIONS ARE SUBMERGED. IF NECESSARY, THE CONTRACTOR SHALL USE APPROVED MEANS TO DIVERT STORM FLOWS FROM CURB CUTS TO CATCH BASINS TO ACHIEVE THE PREFERRED PLANTING CONDITIONS, AND SHALL RESTORE THESE FLOWS UPON COMPLETION OF PLANTING OPERATIONS.

6. FOR PLANT SPECIES KNOWN TO HAVE MORPHOLOGY IMPACTS RESULTING FROM TOTALLY SUBMERGED INSTALLATIONS, MATERIAL TO BE INSTALLED ALONG THE STREAMBANKS SHALL BE OF SUFFICIENT HEIGHTS TO EXTEND ABOVE THE WATER SURFACE WHEN STORM FLOWS ARE RESTORED AFTER THE COMPLETION OF PLANTING OPERATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT IMPACTS TO THE FORM AND STRUCTURE OF PLANTS ARE MINIMIZED TO THE

7. ALL PLANTS AND TREES SHALL BE CERTIFIED AND INSPECTED FREE OF ALL FUNGUS, GRUBS AND INSECTS THAT MAY HAVE A DELETERIOUS EFFECT ON THE SURROUNDING FAUNA AND FLORA.

8. ANY TREES DAMAGED BY THE CONTRACTOR NOT SCHEDULED TO BE REMOVED SHALL BE REPLACED

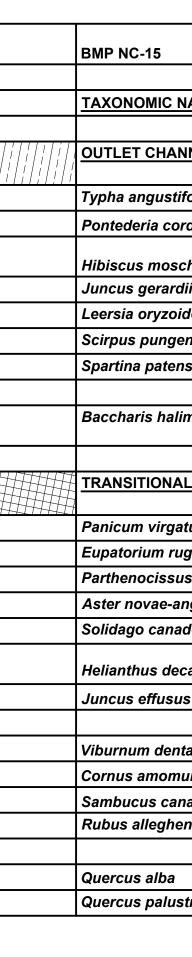
9. DO NOT PLANT TREES WITHIN 20 FEET OF STRUCTURES OR ACCESS ROADS.

10. ALL PLANT MATERIAL SHALL BE STRAIGHT NATIVE SPECIES. CULTIVARS AND VARIETIES

11. SEED BMP WITH FACWET SEED MIX IN THE EMERGENT AND EXTENDED WETLAND ZONES AND UPLAND SEED MIX IN THE UPLAND ZONE PRIOR TO PLANT INSTALLATION (SEE LANDSCAPE SPECIFICATIONS FOR SEED MIX). UPLAND SEED MIX SHALL BE APPLIED TO ALL DISTURBED GROUND BEYOND PLANTING ZONES SHOWN ON PLAN.

13. HERBACEOUS PLANTS SHALL BE PLANTED 2 FEET ON CENTER. INSTALL TREES AND SHRUBS IN A NATURALISTIC MANNER, AT THE DIRECTION OF THE DEP

14. TREE WHIPS AND SHRUBS TO BE LAID OUT BY THE RESTORATION SPECIALIST OR DEP







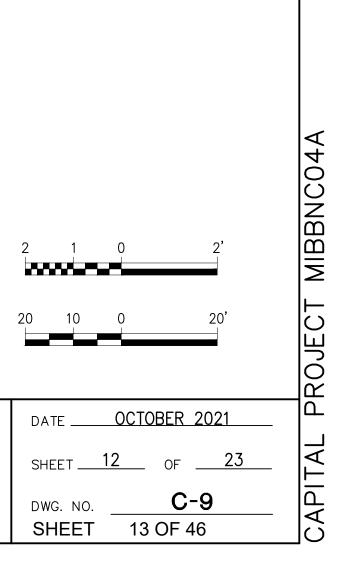


- REMOVE DEBRIS AND FILL FROM SOUTHEAST CORNER OF THE SITE AS DIRECTED BY DEP REPRESENTATIVE

	LANDSCAPE				
	SCHEDULE				
NAME	COMMON NAME	<u>QTY</u>	<u>SIZE</u>	FORM	NOTES
NNEL (EL3 to -2.0)					
tifolia	narrow leaf cattail	50	2" or DP50	PLUG	
ordata	pickerelweed	50	2" or DP50	PLUG	
	crimsoneyed				
scheutos	rosemallow	50	2" or DP50	PLUG	
dii	saltmeadow rush	125	2" or DP50	PLUG	
oides	rice cutgrass	50	2" or DP50	PLUG	
iens	threesquare	125	2" or DP50	PLUG	
ens	saltmarsh cordgrass	100	2" or DP50	PLUG	
limifolia	groundselbush	15	2 - 3' TALL	CONTAINER	PLANT ALONG TOP OF
	0				CHANNEL
AL ZONE (El2.0 +)					
atum	switchgrass	25	2" or DP50	PLUG	
ugosum	white snakeroot	35	2" or DP50	PLUG	
us quinquefolia	Virginia creeper	20	2" or DP50	PLUG	PLANT ALONG TOP OF SLOPE
angliae	new england aster	25	2" or DP50	PLUG	
adensis	Canada goldenrod	50	2" or DP50	PLUG	PLANT IN FULL SUN AREAS
	thin leaved				
ecapetalus	sunflower	40	2" or DP50	PLUG	
us	soft rush	25	2" or DP50	PLUG	PLANT LOW
ntatum	southern arrowwood	3	2 - 3' TALL	CONTAINER	
num	silky dogwood	5	2 - 3' TALL	CONTAINER	PLANT LOW
anadensis	elderberry	5	2 - 3' TALL	CONTAINER	PLANT LOW
eniensis	allegheny blackberry	3	2 - 3' TALL	CONTAINER	
		ు	2-3 TALL		
	white oak	5	5' WHIP	CONTAINER	
strus	pin oak	3	5' WHIP	CONTAINER	

V: 1"=2'−0"

H: 1"=20'-0"



			DRAWN CHECKED SECT.CHIEF _	SPR CTP	AS SHOWN CAD REF	
VIOLATION OF SECTIO ION LAW FOR ANY P ON OF A LICENSED P Y PLANS, SPECIFICA AL OF A PROFESSION ARING THE SEAL OF TERING ENGINEER SH. TATION "ALTERED BY	WARNING ON 7209.2 OF THE NEW YORK STATE ERSON, UNLESS ACTING UNDER THE 'ROFESSIONAL ENGINEER, TO ALTER IN TIONS, PLATS OR REPORTS TO WHICH IAL ENGINEER HAS BEEN APPLIED. IF AN A PROFESSIONAL ENGINEER IS ALTERED, ALL AFFIX TO THE ITEM HIS SEAL AND " FOLLOWED BY HIS SIGNATURE, THE SRIPTION OF THE ALTERATION.		DESIGNED	СТН	SCALE	
	NO BACKFILL SHALL BE PLACED AGAINS SUPPORTING ELEMENTS HAVE ACHIEVED BRACED, AND IN ANY CASE NOT SOONE UNLESS APPROVED BY THE ENGINEER. WALLS, SLABS, BEAMS AND COLUMNS.	DESIGN S R THAN 2	TRENGTH, OR 28 DAYS AFTE	WALLS HA	AVE BEEN PROPER ACING OF CONCRE	LY
9.	STRUCTURES HAVE BEEN DESIGNED FOR DURING CONSTRUCTION, THE STRUCTURE TEMPORARY SUPPORTS WHEREVER EXCE OVERSTRESSING OF ANY STRUCTURAL E	S SHALL SSIVE CON	BE PROTECTE ISTRUCTION L	ED BY BRA LOADS MAY	CING AND	URE.
8.	UNIT WEIGHTS CONCRETE: 150 PCF SOIL: 120 PCF STONE: 160 PCF WATER: 62.4 PCF					
	SNOW: (ASCE 7–16) GROUND SNOW LOAD (PG) = 20 F FLAT ROOF SNOW LOAD (Pf) = 14 SNOW EXPOSURE FACTOR (Ce) = SNOW LOAD IMPORTANCE FACTOR THERMAL FACTOR (Ct) = 1.2	- PSF 0.90	80			
	WIND: (ASCE 7-16) ULTIMATE DESIGN WIND SPEED (Vu NOMINAL DESIGN WIND SPEED (Vas RISK CATEGORY = I WIND IMPORTANCE FACTOR (Iw) = WIND EXPOSURE = C	sd) = 83				
	RISK CATEGORY = I SEISMIC IMPORTANCE FACTOR (Ie) SITE CLASS = D MAPPED SPECTRAL RESPONSE ACC SPECTRAL RESPONSE ACCELERATIO SPECTRAL RESPONSE COEFFICIENT SEISMIC DESIGN CATEGORY = B LATERAL LOAD RESISTING SYSTEM ANALYSIS PROCEDURE = EQUIVALE RESPONSE MODIFICATION COEFFICIE SEISMIC RESPONSE COEFFICIENT C	CELERATIO DNS (SMS, S (SDS/SI = ORDIN, ENT LATER ENT R =	/SM1) = 0.43 D1) = 0.292/ ARY REINFOR RAL FORCE 4	39/0.140 /0.093		5
	DEAD: SELF WEIGHT ROOF LIVE = AASHTO HS-20 VEHICLE SOIL = 120 PCF SURCHARGE = 300 PSF LATERAL COEFFICIENT : $K_0 = 0.50$ COEFFICIENT OF FRICTION AGAINST SL SEISMIC: (ASCE 7-16) DISK CATECODY = 1		40			
7.	WORK SHALL BE PAID TO CONTRACTOR GEOTECHNICAL INPUT ALLOWS A REDUCT REINFORCEMENT, COST OF REDUCED EFF NEGOTIATED CREDIT. DESIGN LOADS:	FION IN FO	DUNDATION RI	EQUIREMEN	ITS AND/OR	
6.	ASSUMPTIONS. ENGINEER SHALL REVISE DESIGN REVISIONS REQUIRED DUE TO GE PAYMENT DEPENDING ON EXTENT OF RE FOUNDATION OR INCREASES IN STRUCTU	OTECHNIC VISIONS. I RE GEOME	AL INVESTIGA F REVISIONS ETRY AND/OR	TION MAY REQUIRE A REINFORC	A MORE ELABORATE CEMENT, ADDITIONA	E
5.	IN CONTRACTOR'S LUMP SUM BID PER S DESIGN OF STRUCTURES DEPICTED ON D SUMMARIZED HEREIN. UPON COMPLETION OF REPORT, ENGINEER SHALL REVIEW RE	RAWINGS OF GEOT EPORT TO	WAS BASED ECHNICAL IN DETERMINE	VESTIGATIO VALIDITY OF	N AND PREPARATI	ON
4.	 OF MAT SLABS, SLABS ON GRAD IDENTIFICATION OF PERTINENT DE COSTS FOR GEOTECHNICAL INVESTIGATIO 	ESIGN AND	CONSTRUCT			DED
	 CONSIDERATIONS FOR EXCAVATION RECOMMENDATIONS, IF APPLICAB SOIL SUBGRADE MODULI, CBR VARIAN PROVIDER VARIANCE AND A MODULI AND A M	LE. LUES, AN	d other paf			GN
	 SEISMIC PARAMETERS FOR DESIG ESTIMATED SETTLEMENT OF THE LOADING TO THE ASSUMED BEAF 	FOUNDATI	ON FOR EACH	H STRUCTU		
	 IMPACT OF GROUNDWATER ON DI DEWATERING AND CONSTRUCTION IF NEEDED. 					З,
	 LATERAL EARTH COEFFICIENTS A ALLOWABLE BEARING PRESSURE, SLIDING RESISTANCE, AND OTHEF STRUCTURES, AS APPLICABLE FOR 	ND PRESS SOIL UNI R DESIGN	URES ABOVE I WEIGHT, CO PARAMETERS	AND BELC EFFICIENT REQUIRED	OW THE WATER TAU OF FRICTION FOR FOR BELOW GRAD	
	 RECOMMENDATIONS FOR DEEP FOR DEEP FOUNDATION MEMBERS RECOMMENDED EMBEDMENT DEPT CAPACITY OF MEMBERS, AND UP 	COMMENDE H, COMPR	D, RECOMMEN RESSIVE CAPA	NDED MININ	/UM SPACING, IEMBERS, LATERAL	
	RESULTS FROM ALL TESTING OFFOUNDATION RECOMMENDATIONS					
3.	UPON COMPLETION OF GEOTECHNICAL IN PROVIDE GEOTECHNICAL REPORT SEALED REGISTERED IN THE STATE OF NEW YOR FOLLOWING ITEMS: • BORING LOGS.	BY A PF	ROFESSIONAL	ENGINEER	CURRENTLY	
	MINIMUM OF TWO BORINGS LOCATED WIT BORINGS SHALL BE EXTENDED TO A DEF BEARING ELEVATION OF THE STRUCTURE DEPTH AS NEEDED TO DEFINE PARAMET SUBMIT PROPOSED BORING LOCATIONS F INVESTIGATION FOR ENGINEER'S APPROV	PTH OF A S. BORIN ERS FOR PRIOR TO	T LEAST 25 F IGS SHALL BE DEEP FOUNDA	OTPRINT C FEET BELO E EXTENDEI ATIONS. C	OF EACH STRUCTUP W THE PROPOSED D BEYOND THIS CONTRACTOR SHALL	RE.
2.	PRIOR TO CONSTRUCTION, CONTRACTOR GEOTECHNICAL CONSULTANT TO PERFOR OF EACH OF THE STRUCTURES DEPICTED	M A GEOT	ECHNICAL IN	VESTIGATIO	N AT THE LOCATIO	

METAL NOTES:

MATERI	AL:	
STRUCT	JRAL	PIPE:
PLATES	AND	ANGLES
	STRUCT STRUCT	MATERIAL: STRUCTURAL STRUCTURAL PLATES AND

ASTM A500, GRADE B OR A501 (42 KSI) ASTM A53, TYPE E OR S, GRADE B (35 KSI) ASTM A36 UNO (36 KSI)

2. DO NOT PAINT STEEL SURFACES WHICH ARE TO BE WELDED OR ARE TO BE ENCASED IN CONCRETE.

- 3. ALL STAINLESS STEEL FABRICATIONS EXPOSED TO UNDERWATER SERVICE SHALL BE TYPE 316. ALL OTHER STAINLESS STEEL FABRICATIONS SHALL BE TYPE 304, UNLESS PRESENT IN THE SUPPLEMENTAL CARBON FEED FACILITY, OR NOTED OTHERWISE. ALL STAINLESS STEEL FABRICATIONS IN THE SUPPLEMENTAL CARBON FEED FACILITY SHALL BE TYPE 316.
- 4. ALL BOLTS, ANCHOR BOLTS, AND CONCRETE ANCHORS CONNECTING ALUMINUM SHALL BE TYPE 316 STAINLESS STEEL.
- 5. ALL GROOVE AND BUTT WELDS SHALL BE FULL PENETRATION.
- 6. FILLET WELD SIZES SHALL BE THE MINIMUM SIZE REQUIRED BY AISC CODE FOR PLATE SIZES TO BE CONNECTED AND SHALL BE APPLIED TO THE ENTIRE JOINT CONTACT LENGTH, BUT NOT LESS THAN 3/16".
- 7. STRUCTURAL WELDED JOINTS SHALL CONFORM TO THE PROVISIONS OF AWS D1.1, STRUCTURAL WELDING CODE BY AMERICAN WELDING SOCIETY. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.
- 8. SPECIAL PERIODIC AND CONTINUOUS INSPECTIONS SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND THE BUILDING CODE OF THE CITY OF NEW YORK. PERIODIC INSPECTION OF STRUCTURAL STEEL CONNECTIONS AND REINFORCING STEEL ARE REQUIRED.

CONCRETE NOTES:

- 1. ALL CONCRETE SHALL BE AIR ENTRAINED UNO.
- 2. WHERE THE SPECIFICATIONS AND THE DRAWINGS DO NOT HAVE PROVISIONS, THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF "CODE REQUIREMENTS" FOR CONCRETE STRUCTURES" (ACI 318 – LATEST EDITION).
- 3. FOR CONCRETE MIX DESIGN SEE GENERAL SPECIFICATION 11 CONCRETE AS AMENDED BY THE BWSO - STANDARD SEWER SPECIFICATION 2.15 AND CONSTRUCTION OF BLUE BELT IMPROVEMENTS SPECIFICATION 7.103.
- 4. ALL REINFORCING BARS TO BE DEFORMED BARS OF NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- 5. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: CAST-IN-PLACE CONCRETE: f'c = 4000 PSI. PRECAST CONCRETE: f'c = 5000 PSI
- 6. CONCRETE PROTECTION FOR REINFORCING SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON DRAWINGS:
- A. CONCRETE DEPOSITED DIRECTLY AGAINST SOIL ______ 3" B. CONCRETE EXPOSED TO WEATHER/FLUID _____2
- 7. WHERE BARS ARE TO BE SPLICED OR EMBEDDED, THE LENGTH OF SPLICE OR EMBEDMENT SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL OF STANDARD PRACTICE OF THE AMERICAN CONCRETE INSTITUTE. FOR TENSION LAP SPLICES SEE TABLE ON SHEET SD-1 FOR CLASS B SPLICES.
- 8. ALL EXPOSED CORNERS SHALL HAVE A 3/4" CHAMFER UNLESS NOTED OTHERWISE ON DRAWINGS.
- 9. ALL EMBEDDED ITEMS SHALL BE INSTALLED AND SECURED IN PLACE BEFORE CONCRETE PLACEMENT. CONSULT APPROPRIATE DRAWINGS FOR PIPING, EMBEDDED ITEMS AND OPENINGS.
- 10. SLABS WITH SLOPING SURFACES SHALL HAVE THE INDICATED SLAB THICKNESS MAINTAINED AS THE MINIMUM. SLAB BOTTOMS CAN EITHER SLOPE WITH THE TOP SURFACE OR BE LEVEL. REINFORCEMENT IN SLABS WITH SLOPING SURFACES SHALL BE PLACED AT THE REQUIRED CLEARANCE FROM THE SLAB SURFACE.

FOUNDATION NOTES:

- 1. HEADWALL STRUCTURES AND JUNCTION CHAMBER ARE DESIGNED WITH THE ASSUMPTION THAT SHALLOW MAT FOUNDATIONS WILL BE ACCEPTABLE FOR SUPPORT. PRESUMED BEARING CAPACITY OF SUBGRADE IS 2500 PSF. SEE GENERAL NOTES 2–6 REGARDING CONFIRMATION OF DESIGN ASSUMPTIONS AND REVISIONS TO DESIGN, IF NECESSARY.
- 2. WEIR CHAMBER STRUCTURES ARE DESIGNED WITH THE ASSUMPTION THAT PILES WILL BE REQUIRED FOR VERTICAL AND LATERAL SUPPORT OF STRUCTURES.
- 3. PILES SHALL BE TREATED TIMBER PILES WITH A MINIMUM TIP DIAMETER OF 12". PILES SHALL BE INSTALLED AS REQUIRED TO DEVELOP A MINIMUM VERTICAL DOWNWARD ALLOWABLE LOAD OF 20 TONS, A LATERAL LOAD OF 5 TONS, AND AN UPLIFT TENSILE CAPACITY OF 5 TONS.
- 4. PILES SHALL CONFORM TO ASTM D25, CLASS B FOR MARINE STRUCTURES. FOR TIMBER PILES.
- 5. ALL TIMBER PILES SHALL HAVE AN ASSUMED LENGTH OF 50 FEET FOR INITIAL BID PURPOSE, WHICH SHALL BE REEVALUATED UPON COMPLETION OF GEOTECHNICAL INVESTIGATION.
- 6. AS PER FEMA PRODUCED FLOOD INSURANCE RATE MAP (FIRM) NO: 3604970328F REVISED ON SEPTEMBER 5, 2007, THIS PROJECT SITE IS LOCATED WITHIN FLOOD ZONE AE AND FLOOD ZONE X. UPLIFT ANCHORS WILL BE REQUIRED AND MUST BE INSTALLED ON ALL PILES. THE CONTRACTOR MUST SUBMIT THE UPLIFT ANCHOR DESIGN TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE START OF THIS PROJECT. THE COST OF MATERIAL AND WORK WILL BE DEEMED INCLUDED IN THE PRICE BID FOR CONTRACT ITEM 70.11TT - TIMBER PILES (TREATED). NO ADDITIONAL PAYMENT WILL BE MADE TO THE CITY.



VI-1	MASONRY MORTAF REQUIREMENTS OF
M-2	CONCRETE MASON ACCORDANCE WITH INSPECTOR.
M-3	HORIZONTAL JOIN SHALL CONFORM
M−4	CONCRETE MASON ON CENTER, CENT GROUTED CELLS.

- INCHES FOR #6 BARS.







ABBREVIATIONS

ADH	ADHESIVE	EMBED	EMBEDMENT	PL
AL	ALUMINUM	EQ	EQUAL	PLCS
ADDTL	ADDITIONAL	EQPT	EQUIPMENT	PSF
ARCH	ARCHITECTURAL	EXIST	EXISTING	REQD
BLDG	BUILDING	EXP	EXPANSION	SIM
вот	ВОТТОМ	FT	FOOT	SQ
CIP	CAST IN PLACE	GRTG	GRATING	SST
CL	CENTERLIN	HORZ	HORIZONTAL	STD
CMU	CONCRETE MASONRY UNIT	HPT	HIGHPOINT	STL
COL	COLUMN	HS	HIGH STRENGTH	Т
CONC	CONCRETE	INV	INVERT	T&B
CONST	CONSTRUCTION	JT	JOINT	тос
DB	DOUBLE BARRELL	LPT	LOWPOINT	TOG
DET	DETAIL	МАХ	MAXIMUM	TOS
DWG	DRAWING	MIN	MINIMUM	тоw
DWL	DOWEL	NO	NUMBER	TYP
EF	EACH FACE	OC	ON CENTER	UNO
EL	ELEVATION	OPNG	OPENING	VERT
				W
				/
				I '

AR SHALL BE ASTM C 270 TYPE "S" AND MASONRY GROUT SHALL CONFORM TO F ASTM C 476.

ONRY UNIT NET AREA COMPRESSIVE STRENGTH SHALL BE 2,000 PSI WHEN TESTED IN TH ASTM C 140. COMPLETE TEST REPORTS SHALL BE SUBMITTED TO THE BUILDING

NT REINFORCEMENT SHALL CONFORM TO ASTM A 951 AND REINFORCEMENT STEEL TO REQUIREMENTS OF ASTM A 615 FOR GRADE 60 BILLET STEEL.

ONRY UNIT WALLS SHALL BE REINFORCED WITH #6 VERTICAL BARS AT 16 INCHES ITERED IN FULLY GROUTED CELLS, PROVIDE #6 DWLS @ 32" CENTERED IN FULLY

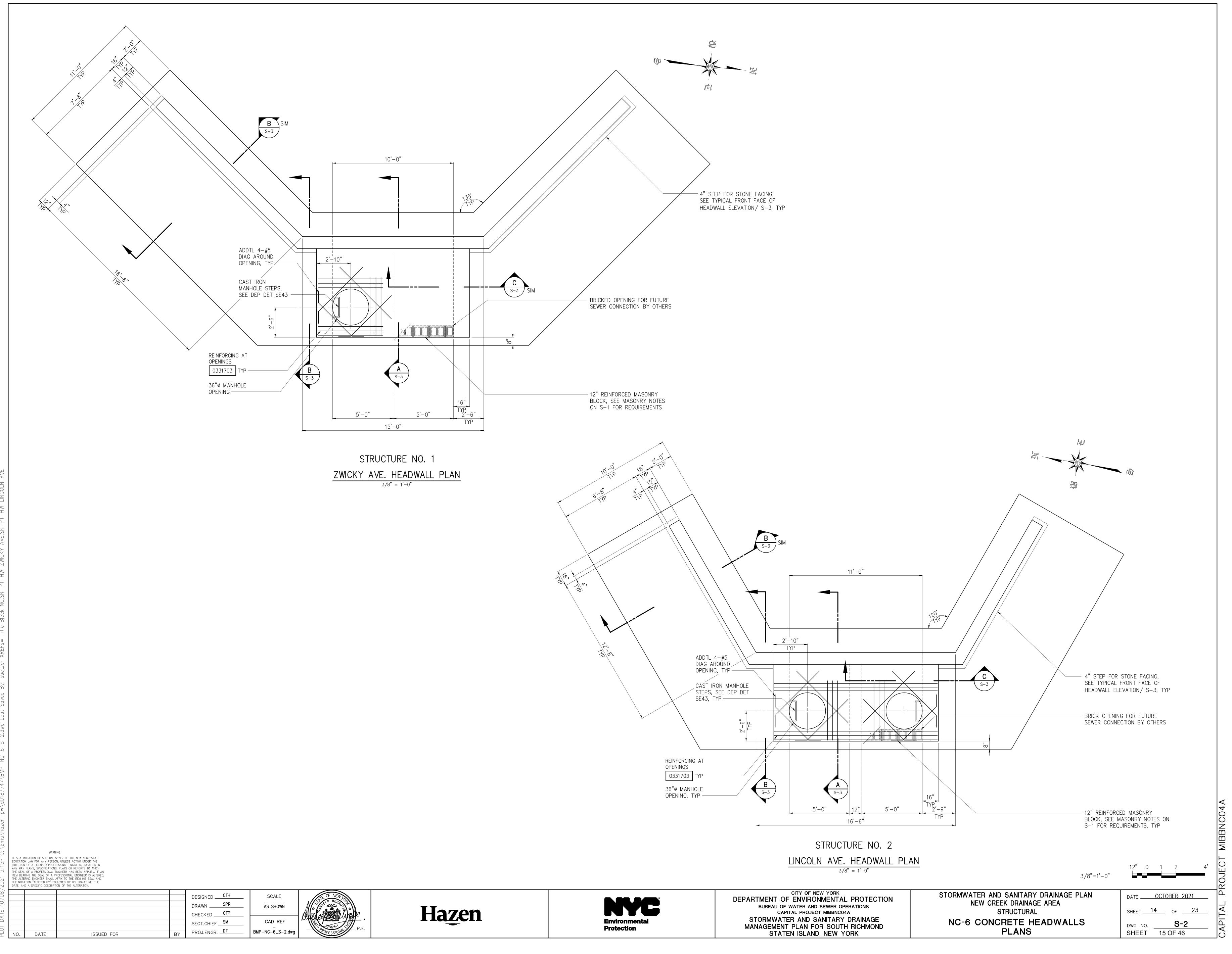
M-5 VERTICAL REINFORCEMENT SHALL BE PROVIDED AT WALL ENDS.

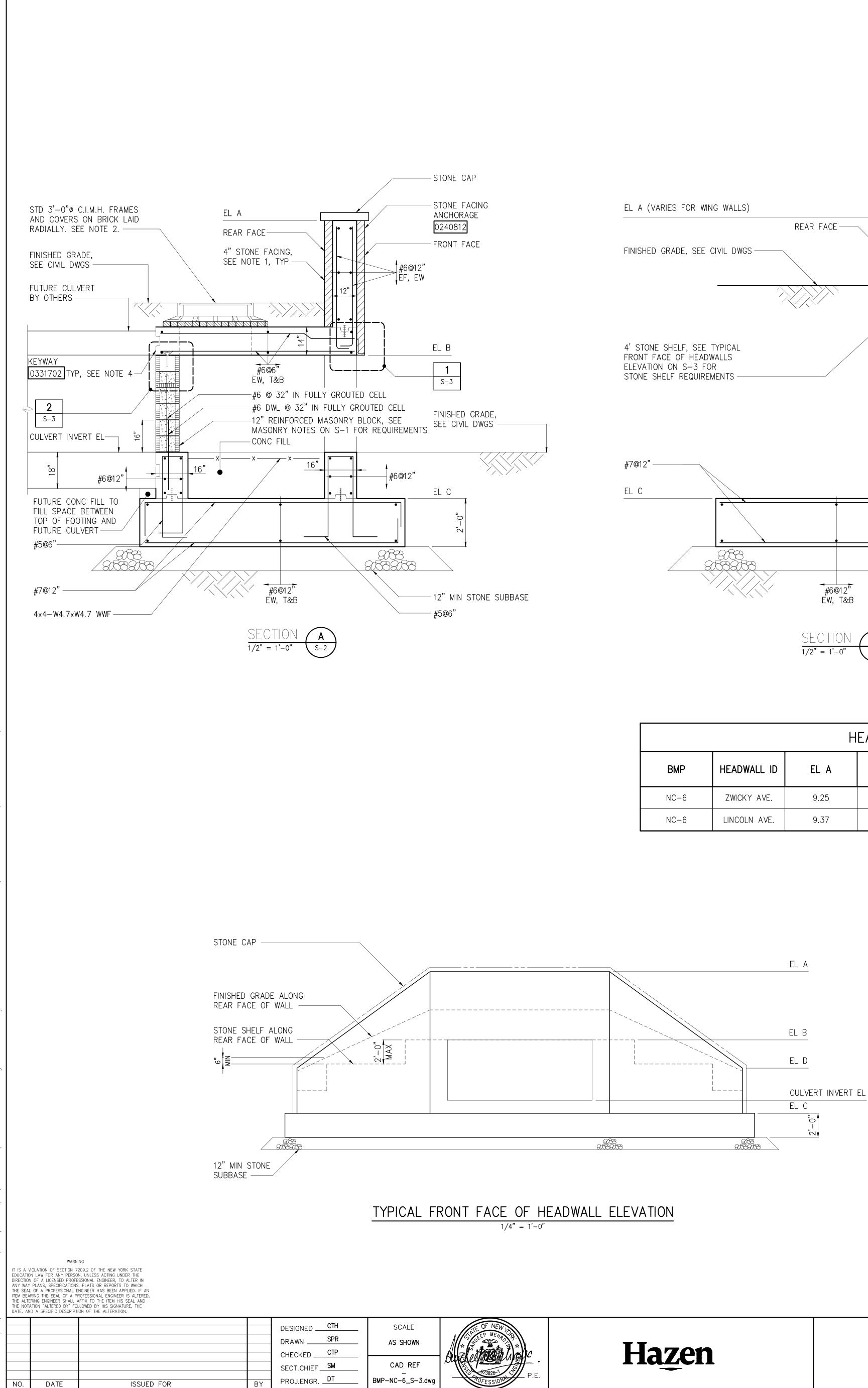
M-6 MASONRY REINFORCEMENT LAP SPLICES SHALL BE CONTACT SPLICES. UNLESS NOTED OTHERWISE. LENGTH OF SPLICE FOR SINGLE BARS IN CENTER OF CELLS CMU SHALL BE A MINIMUM OF 28

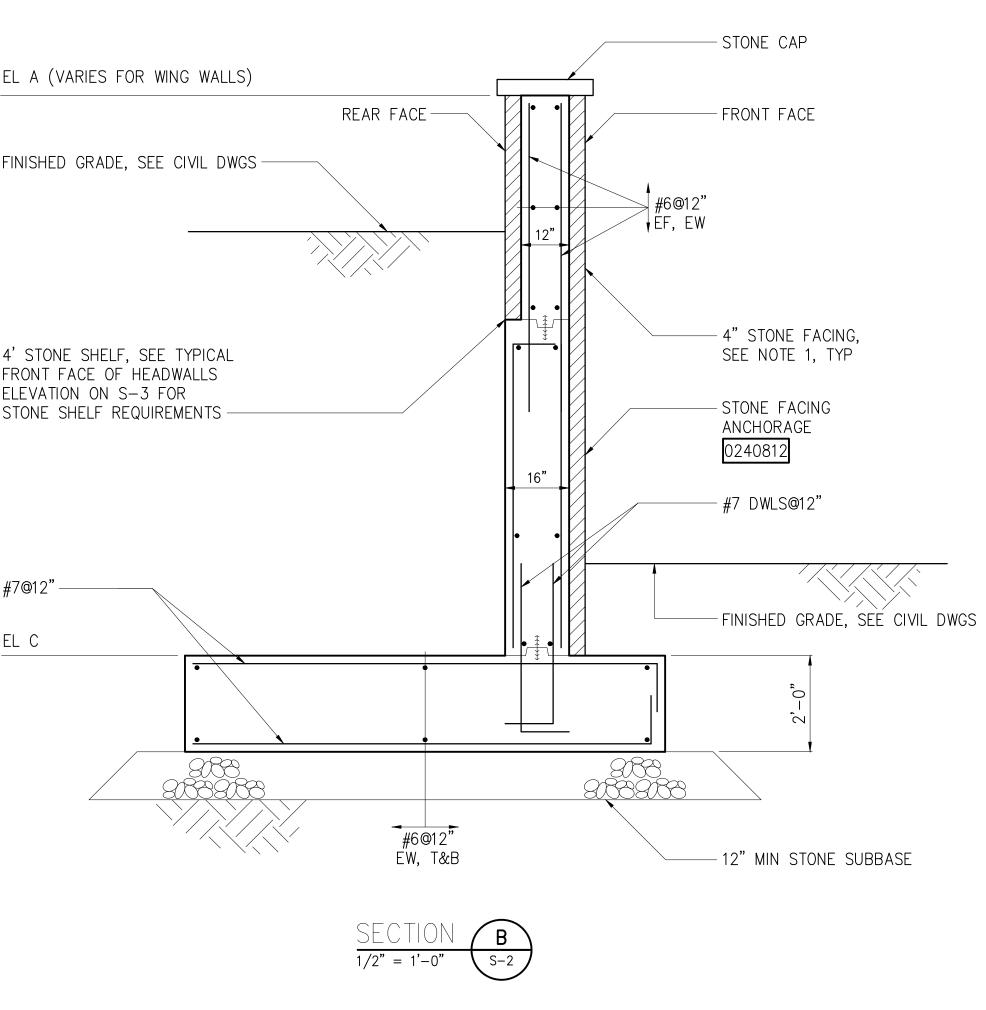
M-7 DOWELS SHALL BE EITHER CAST INTO CONCRETE OR INSTALLED WITH A DOWEL ADHESIVE SYSTEM. IF CAST, DOWELS SHALL BE EMBEDDED IN STEM WALL OR FOUNDATION SLAB A MINIMUM 9" AND SHALL HAVE A STD 90° HOOK. IF INSTALLED WITH A DOWEL ADHESIVE SYSTEM DOWELS SHALL BE STRAIGHT BARS EMBEDDED A MINIMUM OF 10" INTO CONCRETE.

PLATE CS PLACES POUNDS PER SQUARE FOOT EQD REQUIRED SIMILAR SQUARE STAINLESS STEEL STANDARD STEEL TOP; TREAD TOP AND BOTTOM TOP OF CONCRETE TOP OF GRATING TOP OF STEEL TOP OF WALL TYPICAL UNLESS NOTED OTHERWISE VERTICAL WIDE; WIDTH OF

				MIBBNC04
				ROJECT
DATE	ОСТО	BER 20)21	ח
SHEET	3	OF	23	TAI
DWG. NO.		S-1		
SHEET	14 (OF 46		<u>ان</u>



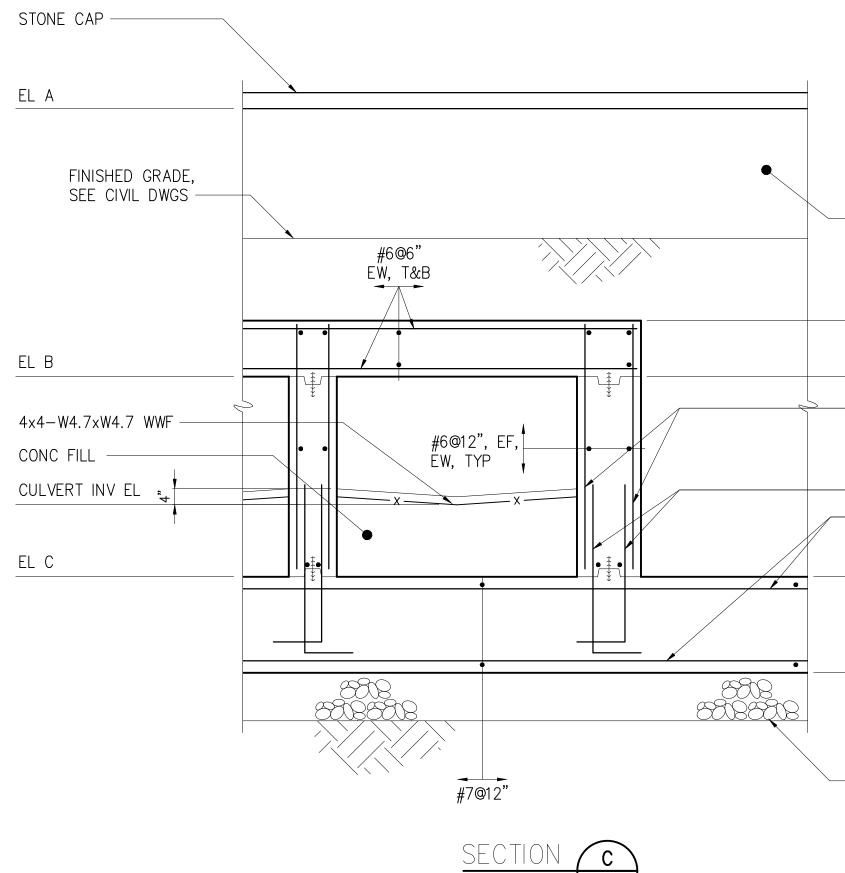




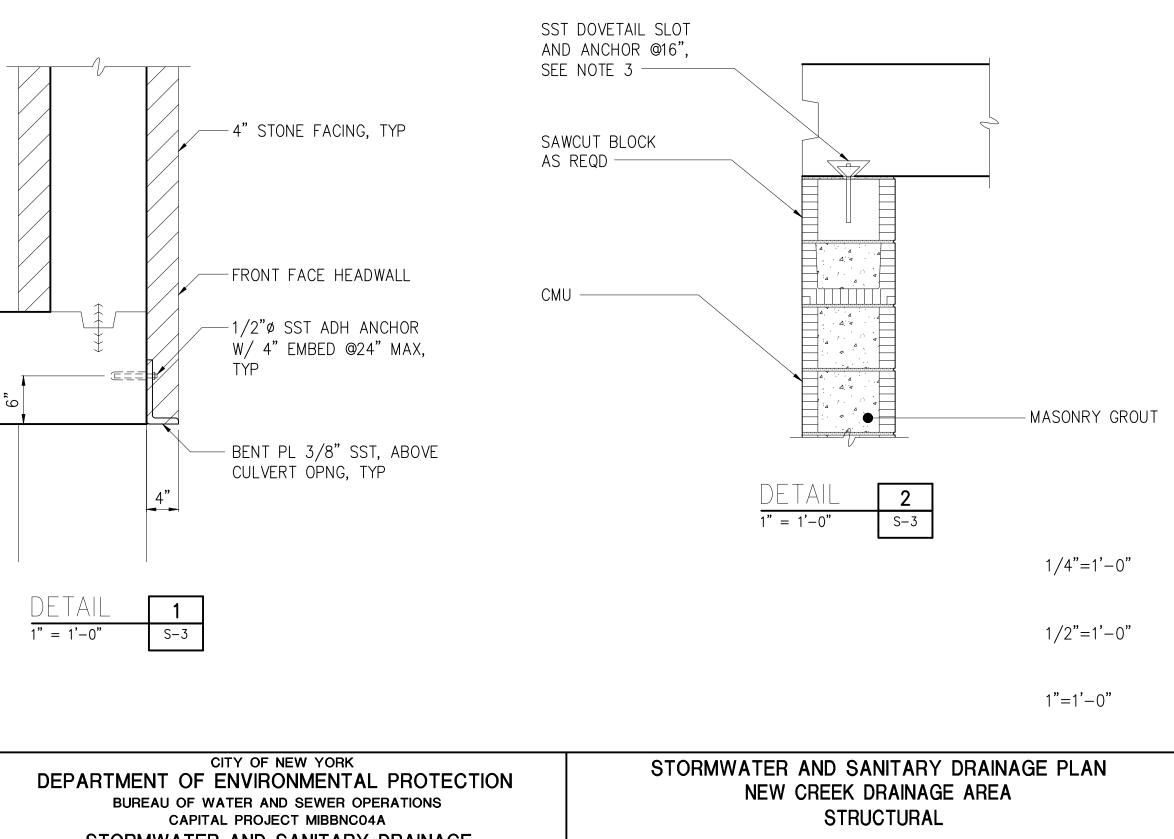
	HEADWALL SCHEDULE							
BMP	HEADWALL ID	EL A	EL B	EL C	EL D	CULVERT INVERT ELEVATION		
NC-6	ZWICKY AVE.	9.25	3.58	-2.50	1.75	-0.42		
NC-6	LINCOLN AVE.	9.37	4.20	-1.50	2.25	1.70		



NOTES:

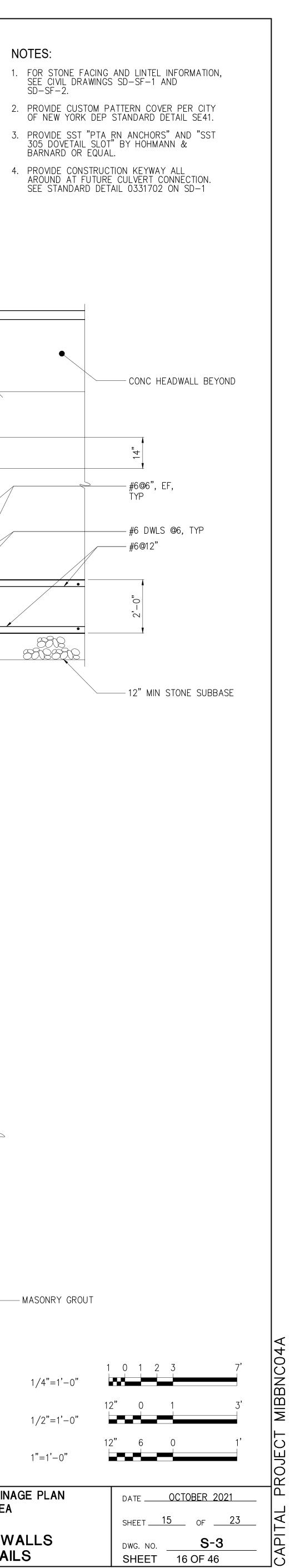


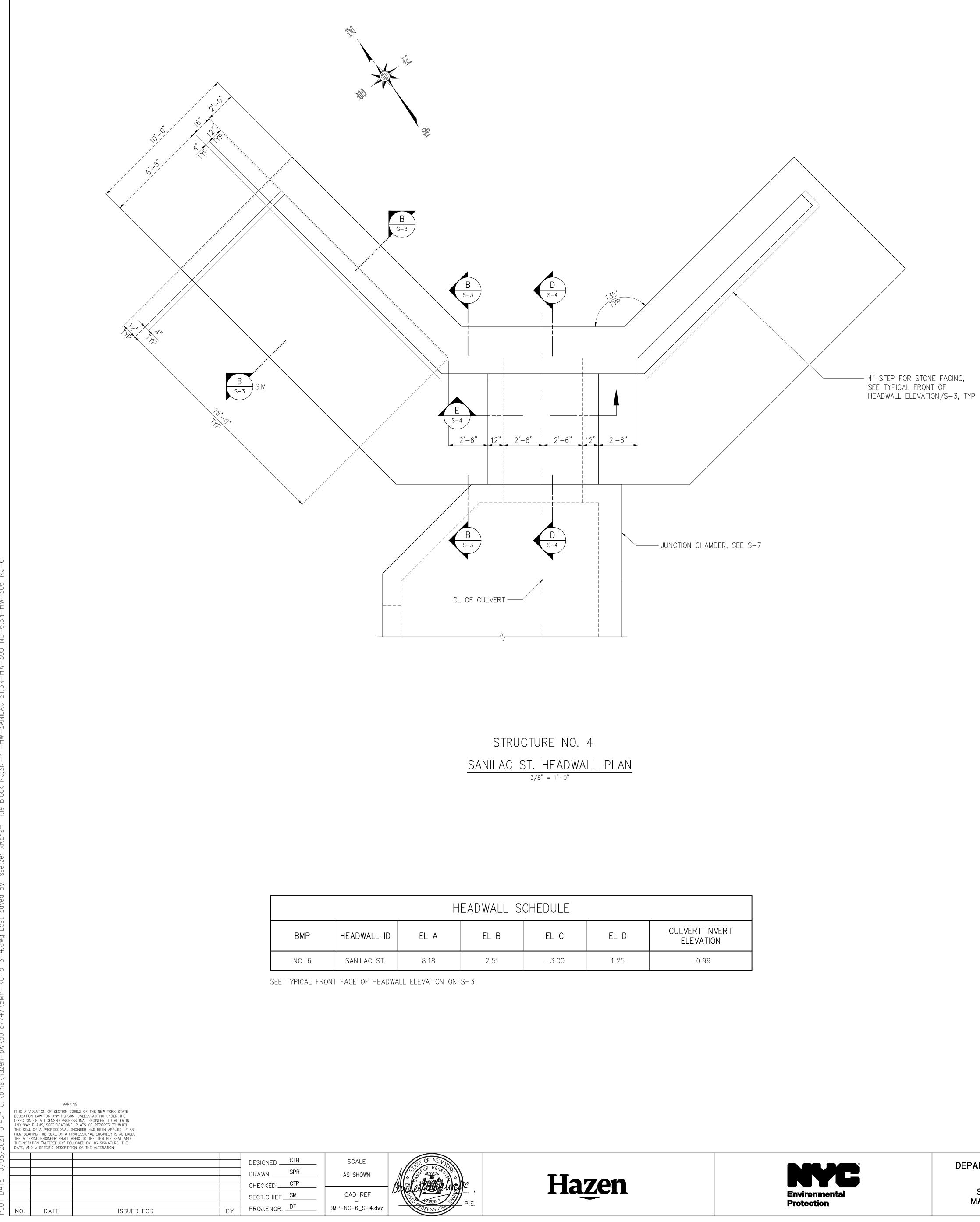
1/2" = 1'-0"



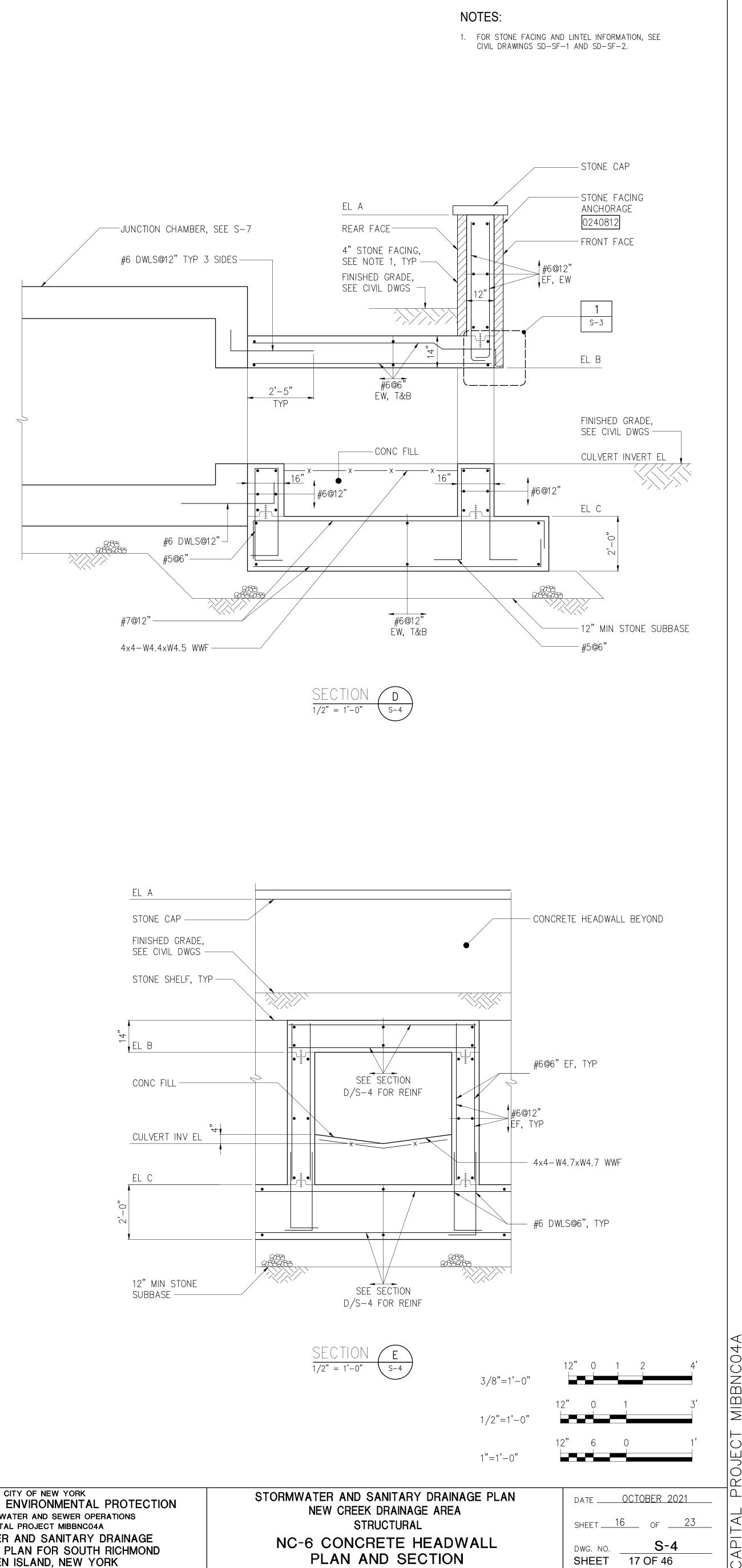
STORMWATER AND SANITARY DRAINAGE MANAGEMENT PLAN FOR SOUTH RICHMOND STATEN ISLAND, NEW YORK

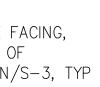
NC-6 CONCRETE HEADWALLS SECTIONS AND DETAILS

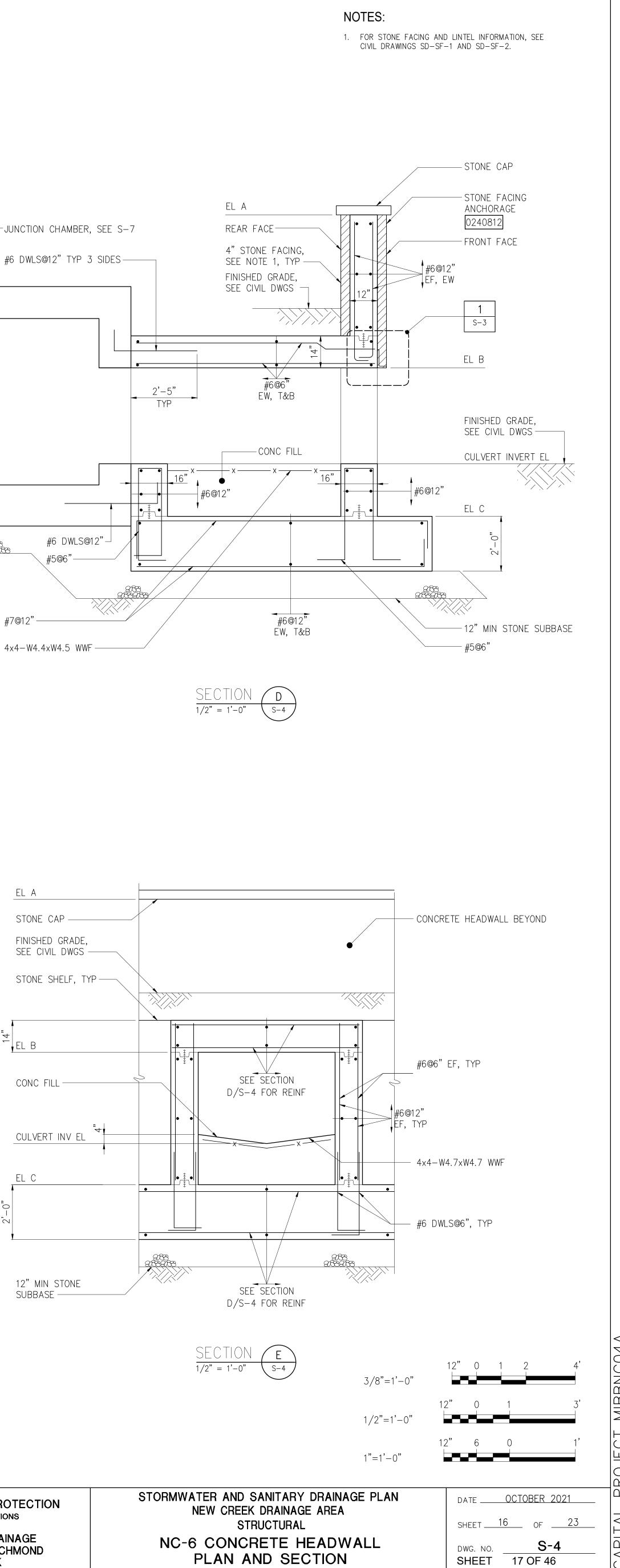




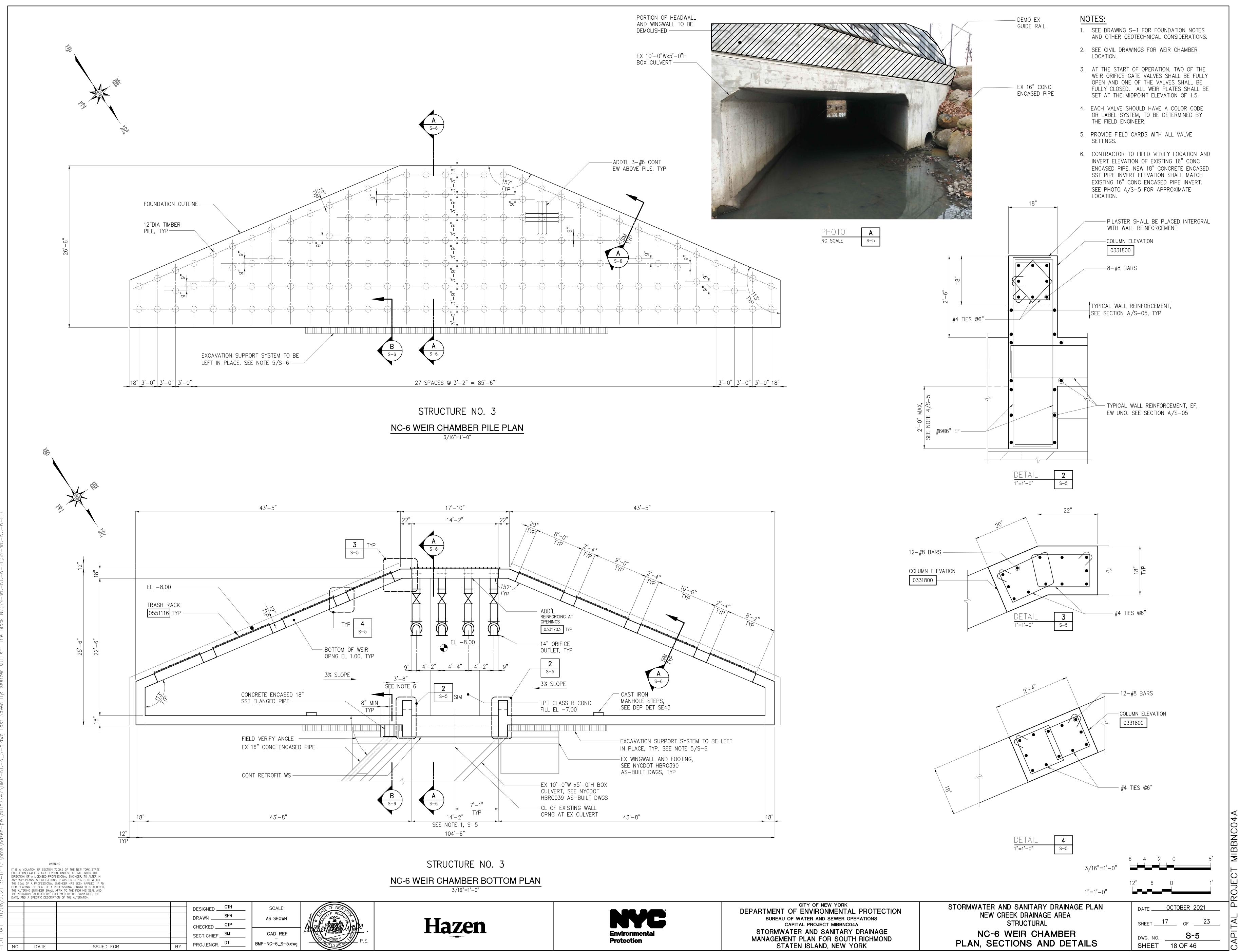
HEADWALL SCHEDULE						
EL A	EL B	EL C	EL D	CULVERT INVERT ELEVATION		
8.18	2.51	-3.00	1.25	-0.99		

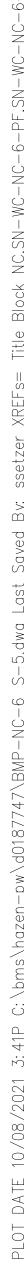






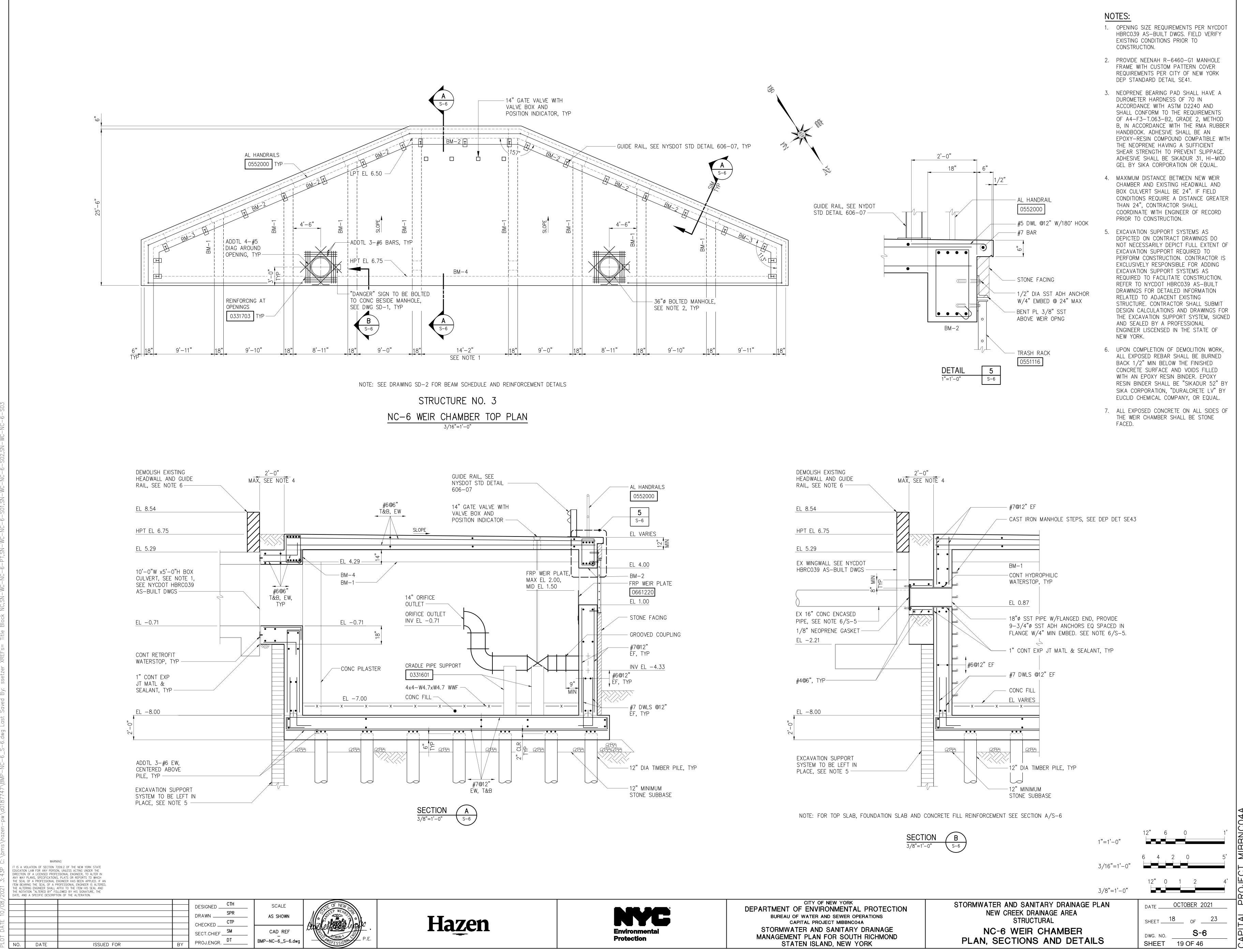
DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER AND SEWER OPERATIONS CAPITAL PROJECT MIBBNC04A STORMWATER AND SANITARY DRAINAGE MANAGEMENT PLAN FOR SOUTH RICHMOND STATEN ISLAND, NEW YORK

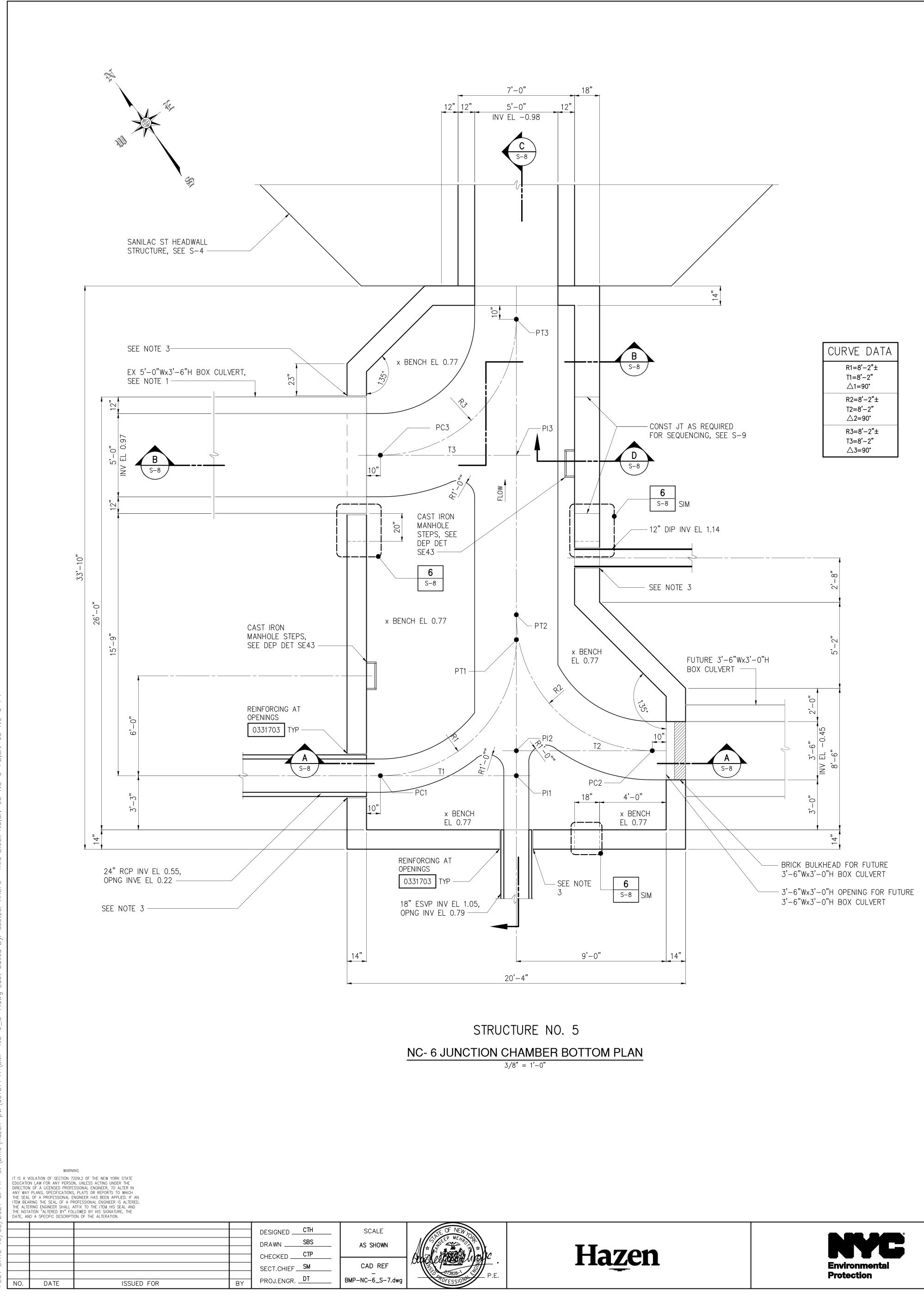






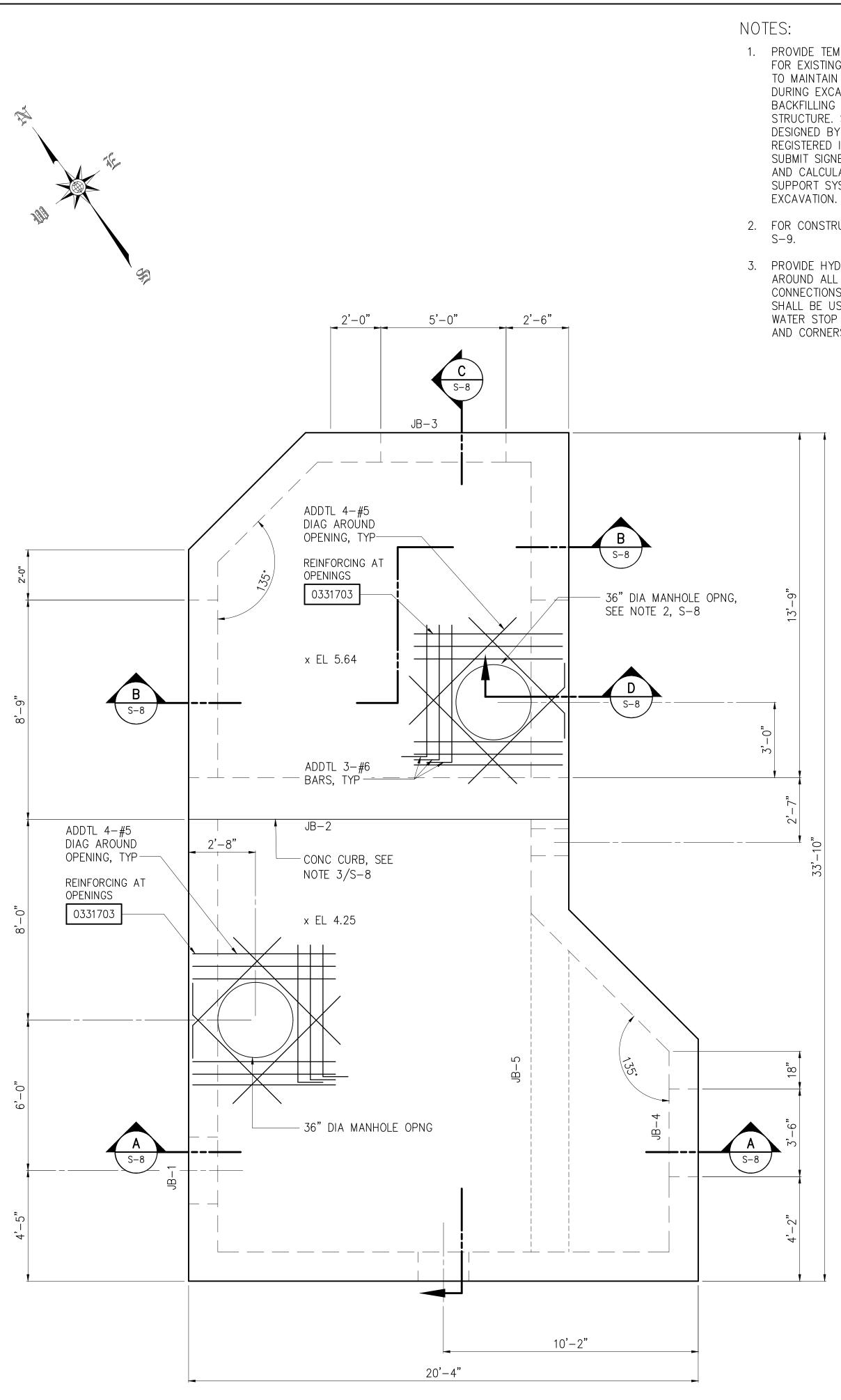












STRUCTURE NO. 5 NC- 6 JUNCTION CHAMBER TOP PLAN 3/8" = 1'-0"

3/16"=1'-0"

3/8"=1'-0"

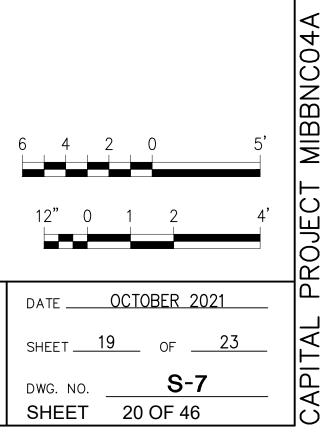
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER AND SEWER OPERATIONS
CAPITAL PROJECT MIBBNC04A
STORMWATER AND SANITARY DRAINAGE
MANAGEMENT PLAN FOR SOUTH RICHMOND
STATEN ISLAND, NEW YORK

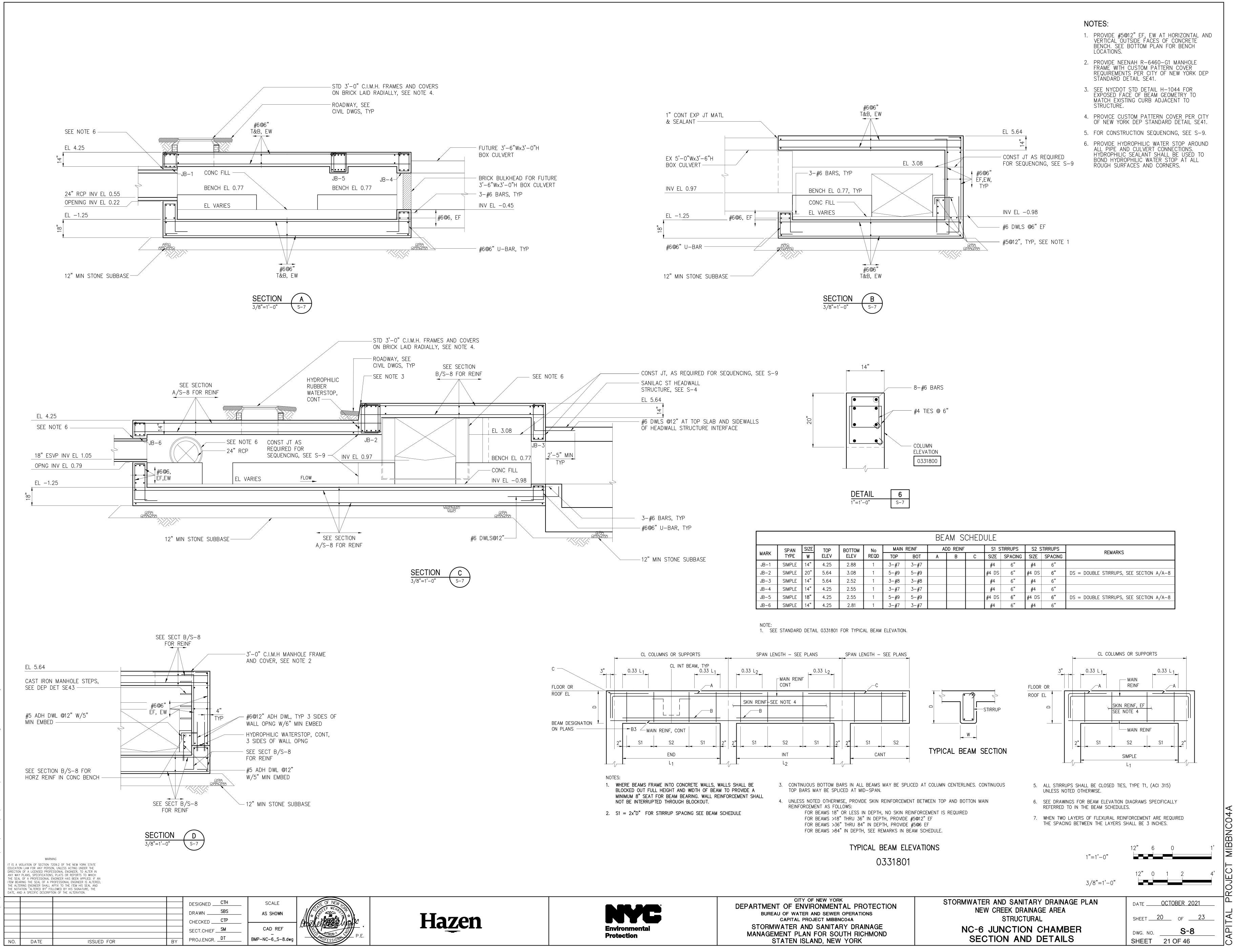
STORMWATER AND SANITARY DRAINAGE PLAN NEW CREEK DRAINAGE AREA STRUCTURAL NC-6 JUNCTION CHAMBER BOTTOM AND TOP PLANS

1. PROVIDE TEMPORARY SUPPORT SYSTEM FOR EXISTING BOX CULVERT AS REQUIRED TO MAINTAIN INTEGRITY OF CULVERT DURING EXCAVATION, CONSTRUCTION, AND BACKFILLING OF JUNCTION CHAMBER STRUCTURE. SUPPORT SYSTEM SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK. SUBMIT SIGNED AND SEALED DRAWINGS AND CALCULATIONS FOR THE PROPOSED SUPPORT SYSTEM PRIOR TO BEGINNING

2. FOR CONSTRUCTION SEQUENCING, SEE

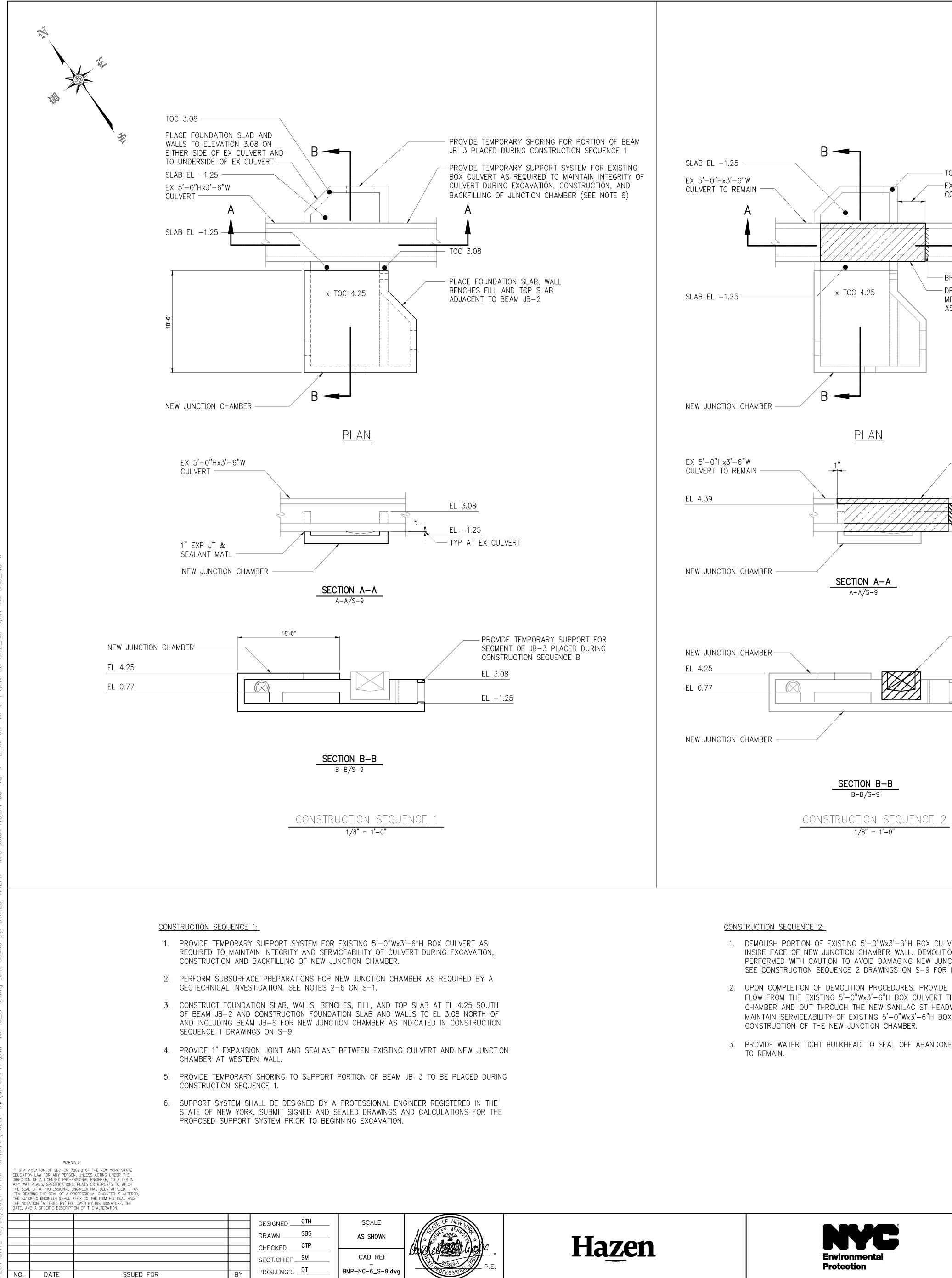
3. PROVIDE HYDROPHILIC WATER STOP AROUND ALL PIPE AND CULVERT CONNECTIONS. HYDROPHILIC SEALANT SHALL BE USED TO BOND HYDROPHILIC WATER STOP AT ALL ROUGH SURFACES AND CORNERS.



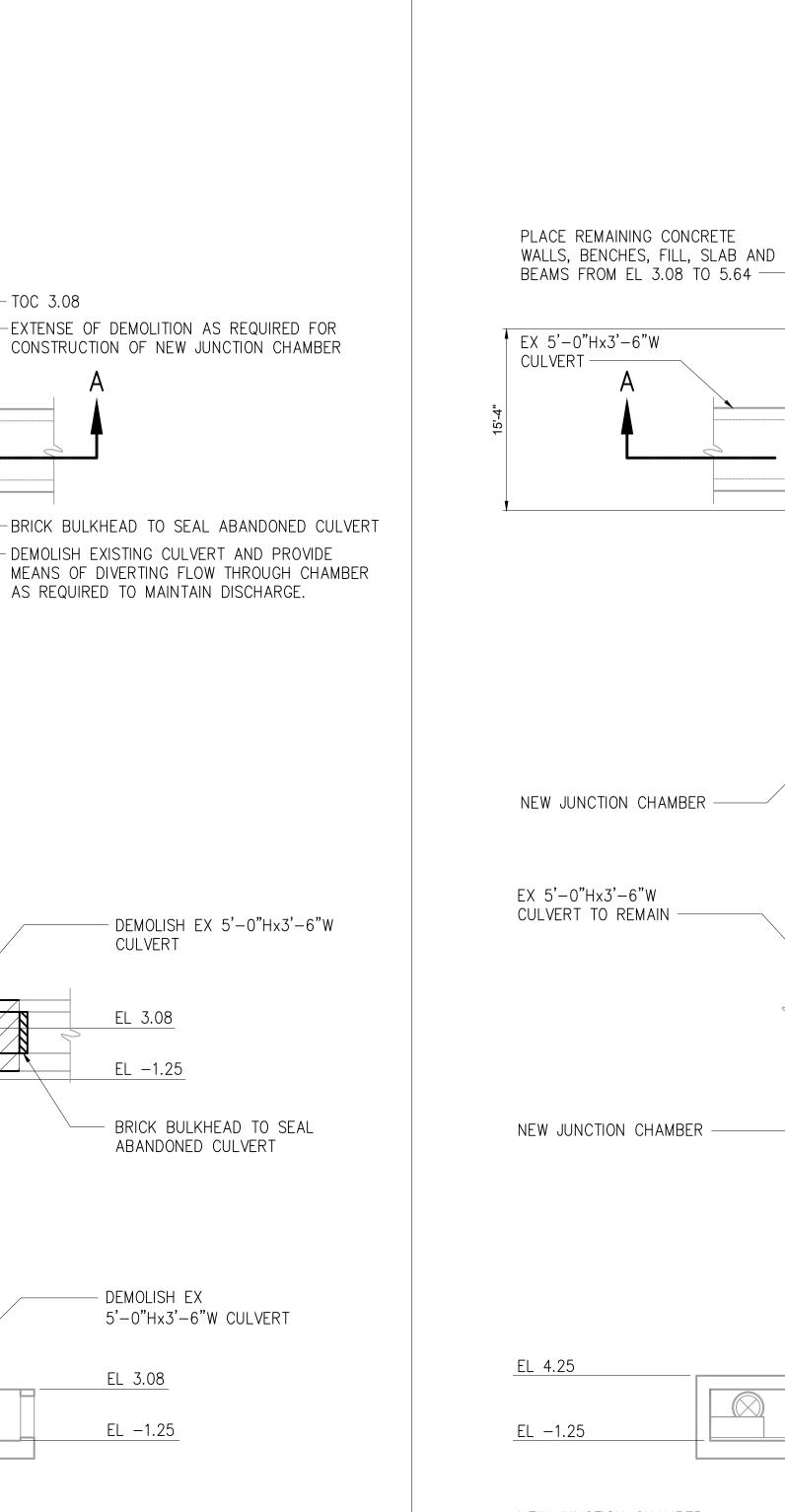


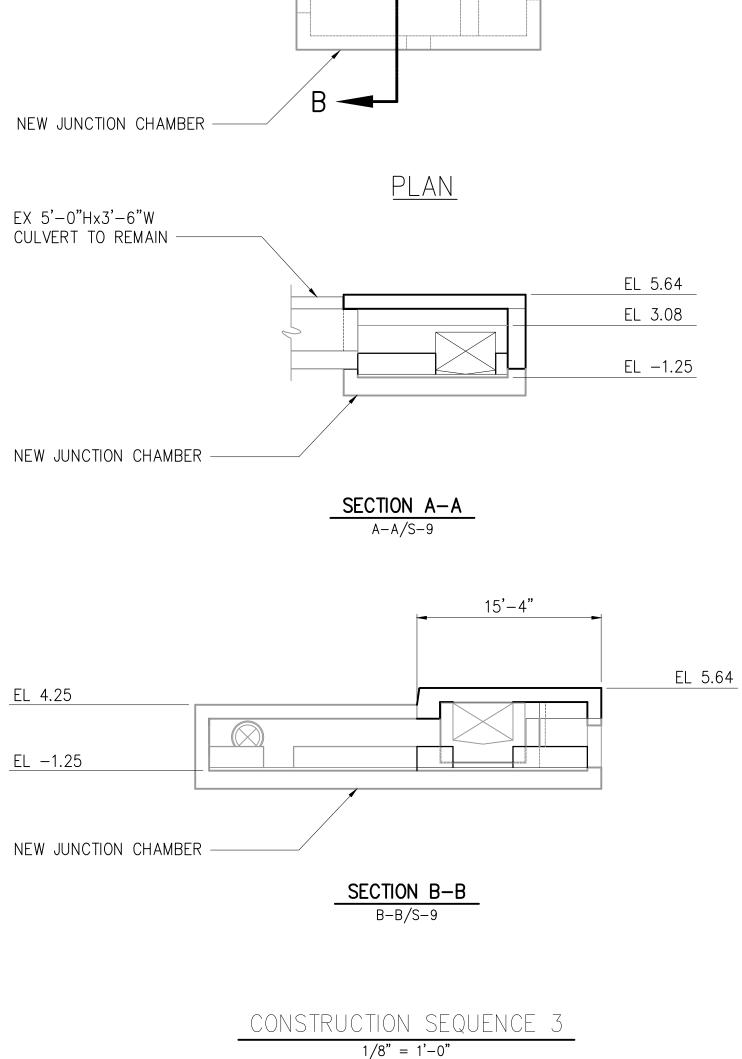
								BE	AM S	CHED	ULE				
	SPAN	SIZE W	TOP ELEV	BOTTOM ELEV	No REQD	MAIN REINF		ADD REINF		S1 STIRRUPS		S2 STIRRUPS			
MARK	TYPE					TOP	BOT	Α	В	С	SIZE	SPACING	SIZE	SPACING	REMARKS
JB-1	SIMPLE	14"	4.25	2.88	1	3-#7	3-#7				#4	6"	#4	6"	
JB-2	SIMPLE	20"	5.64	3.08	1	5-#9	5-#9				#4 DS	6"	#4 DS	6"	DS = DOUBLE STIRRUPS, S
JB-3	SIMPLE	14"	5.64	2.52	1	3-#8	3-#8				#4	6"	#4	6"	
JB-4	SIMPLE	14"	4.25	2.55	1	3-#7	3-#7				#4	6"	#4	6"	
JB-5	SIMPLE	18"	4.25	2.55	1	5-#9	5-#9				#4 DS	6"	#4 DS	6"	DS = DOUBLE STIRRUPS, S
JB-6	SIMPLE	14"	4.25	2.81	1	3-#7	3-#7				#4	6"	#4	6"	

	5/0 -1 -0
CITY OF NEW YORK DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER AND SEWER OPERATIONS CAPITAL PROJECT MIBBNC04A STORMWATER AND SANITARY DRAINAGE MANAGEMENT PLAN FOR SOUTH RICHMOND STATEN ISLAND, NEW YORK	STORMWATER AND SANITARY DRAINAGE PLAN NEW CREEK DRAINAGE AREA STRUCTURAL NC-6 JUNCTION CHAMBER SECTION AND DETAILS



- 1. DEMOLISH PORTION OF EXISTING 5'-0"Wx3'-6"H BOX CULVERT. SAWCUT CULVERT FLUSH WITH INSIDE FACE OF NEW JUNCTION CHAMBER WALL. DEMOLITION AS SHOWN SHALL BE PERFORMED WITH CAUTION TO AVOID DAMAGING NEW JUNCTION CHAMBER WALLS AND SLAB. SEE CONSTRUCTION SEQUENCE 2 DRAWINGS ON S-9 FOR EXTENTS OF DEMOLITION REQUIRED.
- 2. UPON COMPLETION OF DEMOLITION PROCEDURES, PROVIDE MEANS TO TEMPORARILY DIVERT FLOW FROM THE EXISTING 5'-0"Wx3'-6"H BOX CULVERT THROUGH THE NEW JUNCTION CHAMBER AND OUT THROUGH THE NEW SANILAC ST HEADWALL (SEE DRAWINGS S-4) TO MAINTAIN SERVICEABILITY OF EXISTING 5'-0"Wx3'-6"H BOX CULVERT DURING THE REMAINING CONSTRUCTION OF THE NEW JUNCTION CHAMBER.
- 3. PROVIDE WATER TIGHT BULKHEAD TO SEAL OFF ABANDONED 5'-0"Wx3'-6"H BOX CULVERT





x TOC 5.64

x TOC 4.25

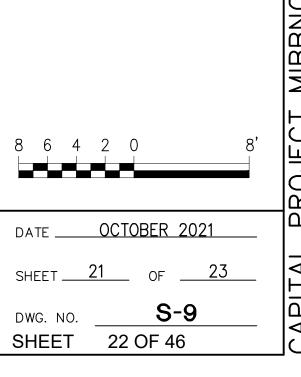
CONSTRUCTION SEQUENCE 3:

- 1. PROVIDE REINFORCING AND WATERSTOP AS SHOWN IN SECTION D ON S-8 IN EASTERN WALL OPENING..
- 2. CONSTRUCT REMAINDER OF NEW JUNCTION CHAMBER WALLS AND TOP SLAB NORTH OF AND INCLUDING BEAM JB-2 FROM ELEVATION 3.08 TO EL 5.64.
- 3. REMOVE TEMPORARY FLOW DIVERSION MEANS DESCRIBED IN NOTE 2 OF CONSTRUCTION SEQUENCE 2.

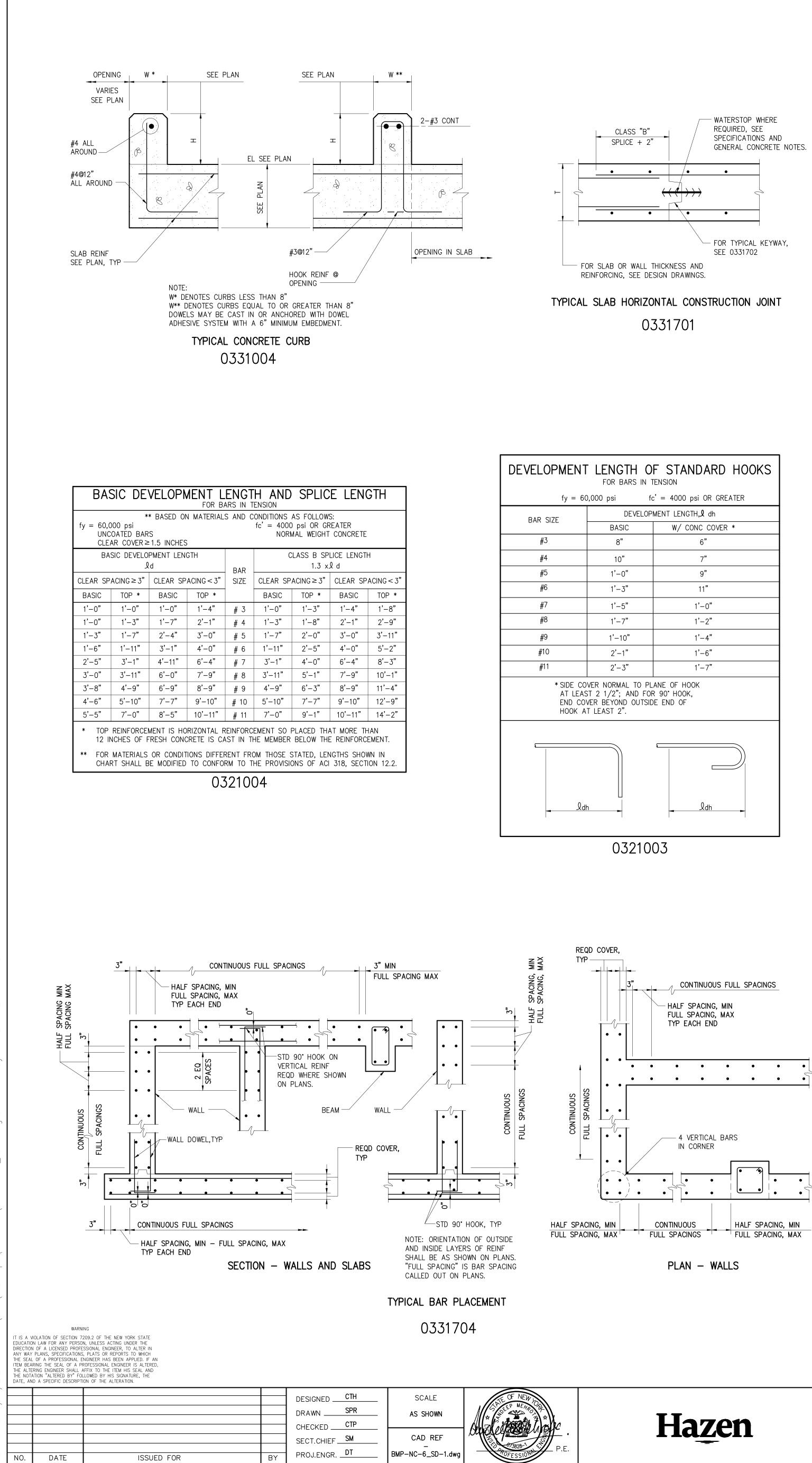
CITY OF NEW YORK DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER AND SEWER OPERATIONS CAPITAL PROJECT MIBBNC04A STORMWATER AND SANITARY DRAINAGE MANAGEMENT PLAN FOR SOUTH RICHMOND STATEN ISLAND, NEW YORK

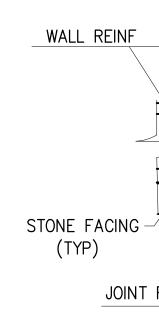
1/8"=1'-0"

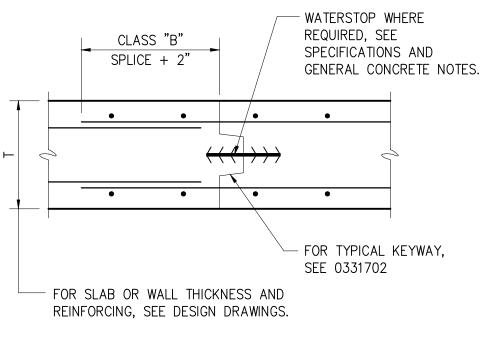
INSTALL ADHESIVE DOWELS (SEE SECTION D/S-8) TYPICAL 3 SIDES WALL OPENING TO BE FILLED.

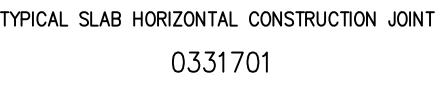






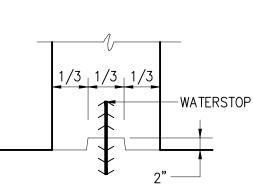






DEVELOPMENT	LENGTH O	F STANDARD HOOKS				
fy = 60,000 psi fc' = 4000 psi OR GREATER						
BAR SIZE	DEVELOP	MENT LENGTH, l dh				
DAN JIZE	BASIC	W/ CONC COVER *				
#3	8"	6"				
#4	10"	7"				
#5	1'-0"	9"				
#6	1'-3"	11"				
#7	1'-5"	1'-0"				
#8	1'-7"	1'-2"				
#9	1'-10"	1'-4"				
#10	2'-1"	1'-6"				
#11	2'-3"	1'-7"				
AT LEAS END CO	VER NORMAL TO PL ST 2 1/2"; AND FO VER BEYOND OUTSIE T LEAST 2".	R 90° HOOK,				
La La		ldh				

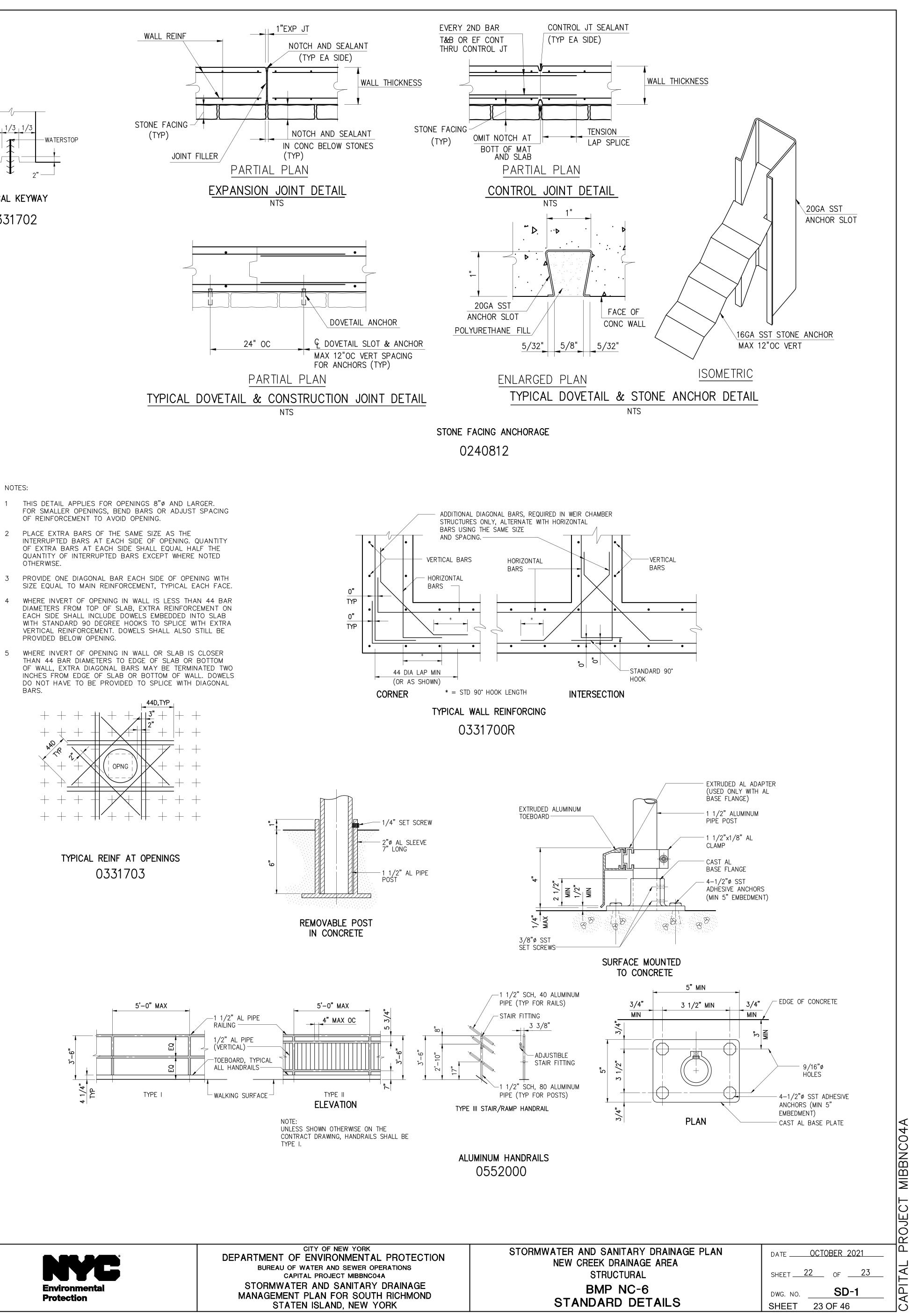


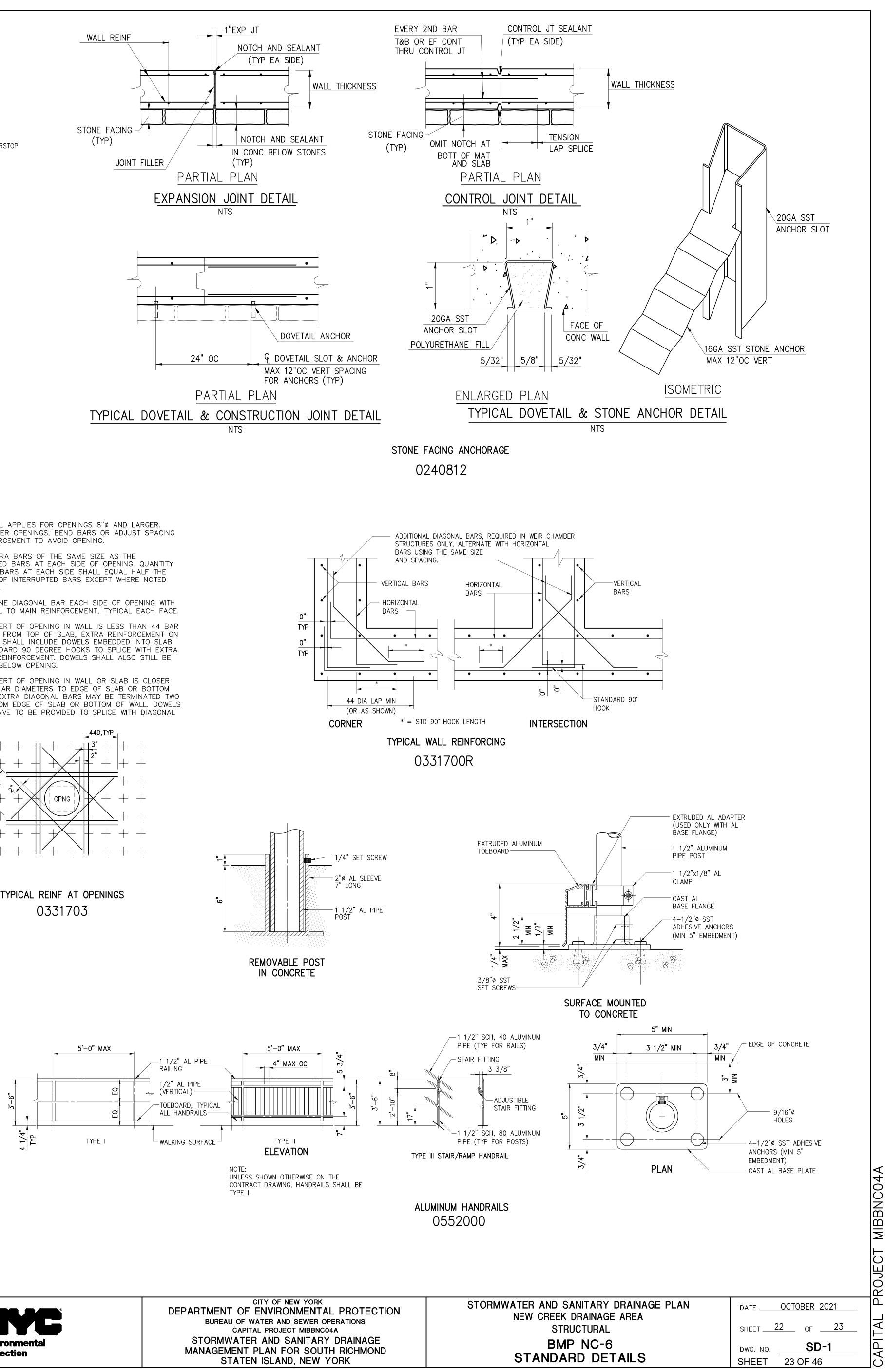


TYPICAL KEYWAY 0331702

NOTES:

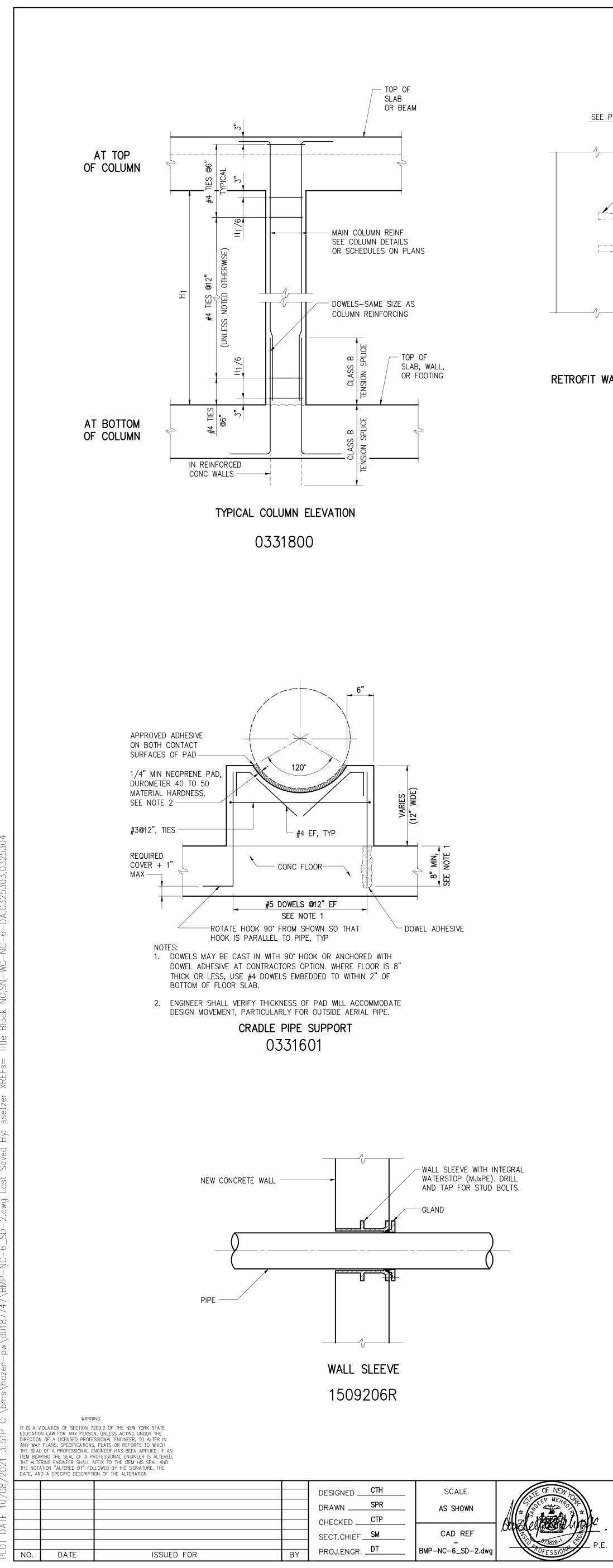
- 1 THIS DETAIL APPLIES FOR OPENINGS 8"Ø AND LARGER. OF REINFORCEMENT TO AVOID OPENING.
- 2 PLACE EXTRA BARS OF THE SAME SIZE AS THE OTHERWISE.
- 3 PROVIDE ONE DIAGONAL BAR EACH SIDE OF OPENING WITH
- PROVIDED BELOW OPENING.
- RARS

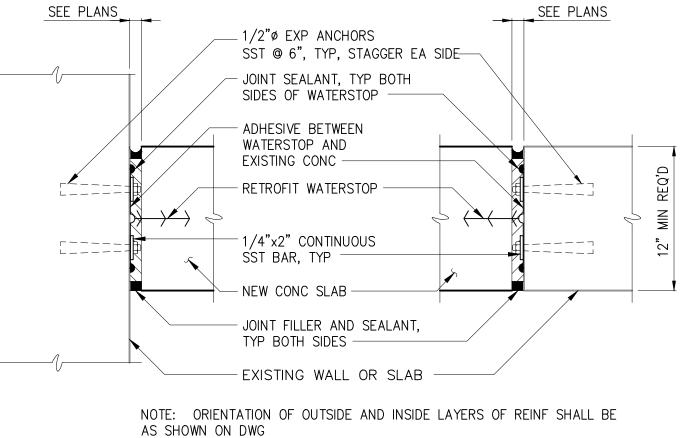


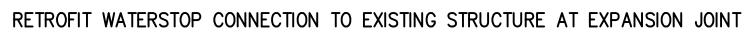




BUREAU OF WATER AND SEWER OPERATIONS
CAPITAL PROJECT MIBBNC04A
STORMWATER AND SANITARY DRAINAGE
MANAGEMENT PLAN FOR SOUTH RICHMONE
STATEN ISLAND NEW VODK

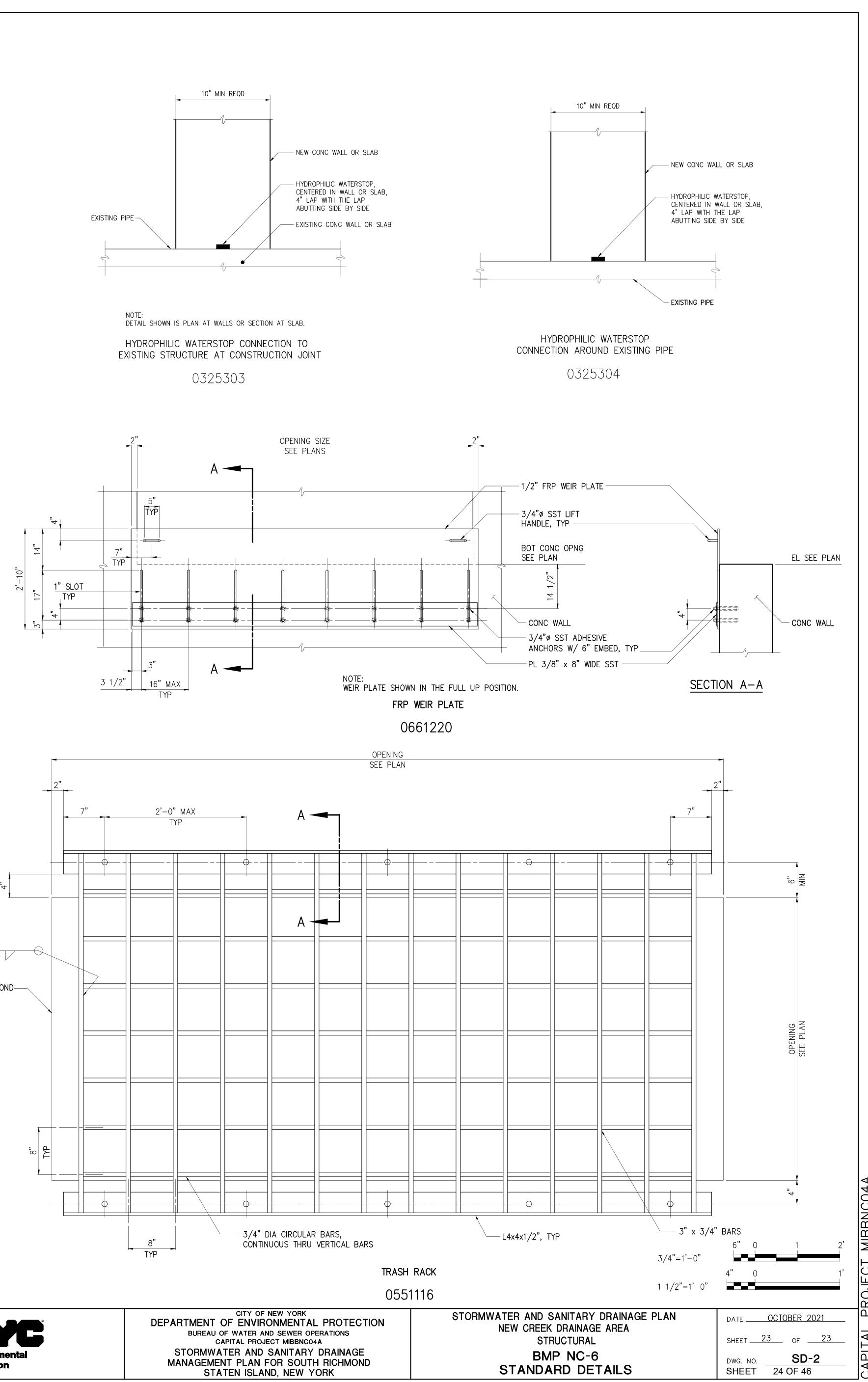




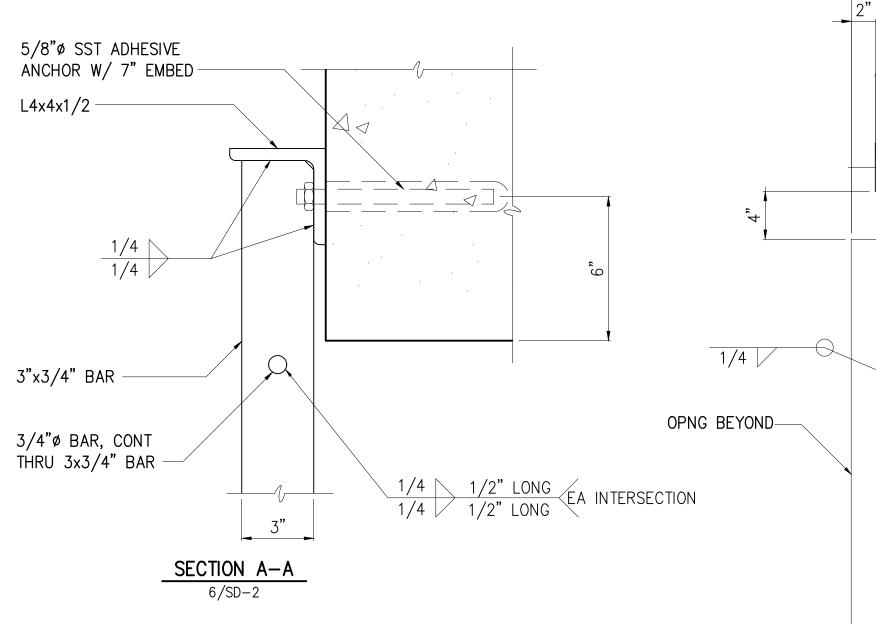


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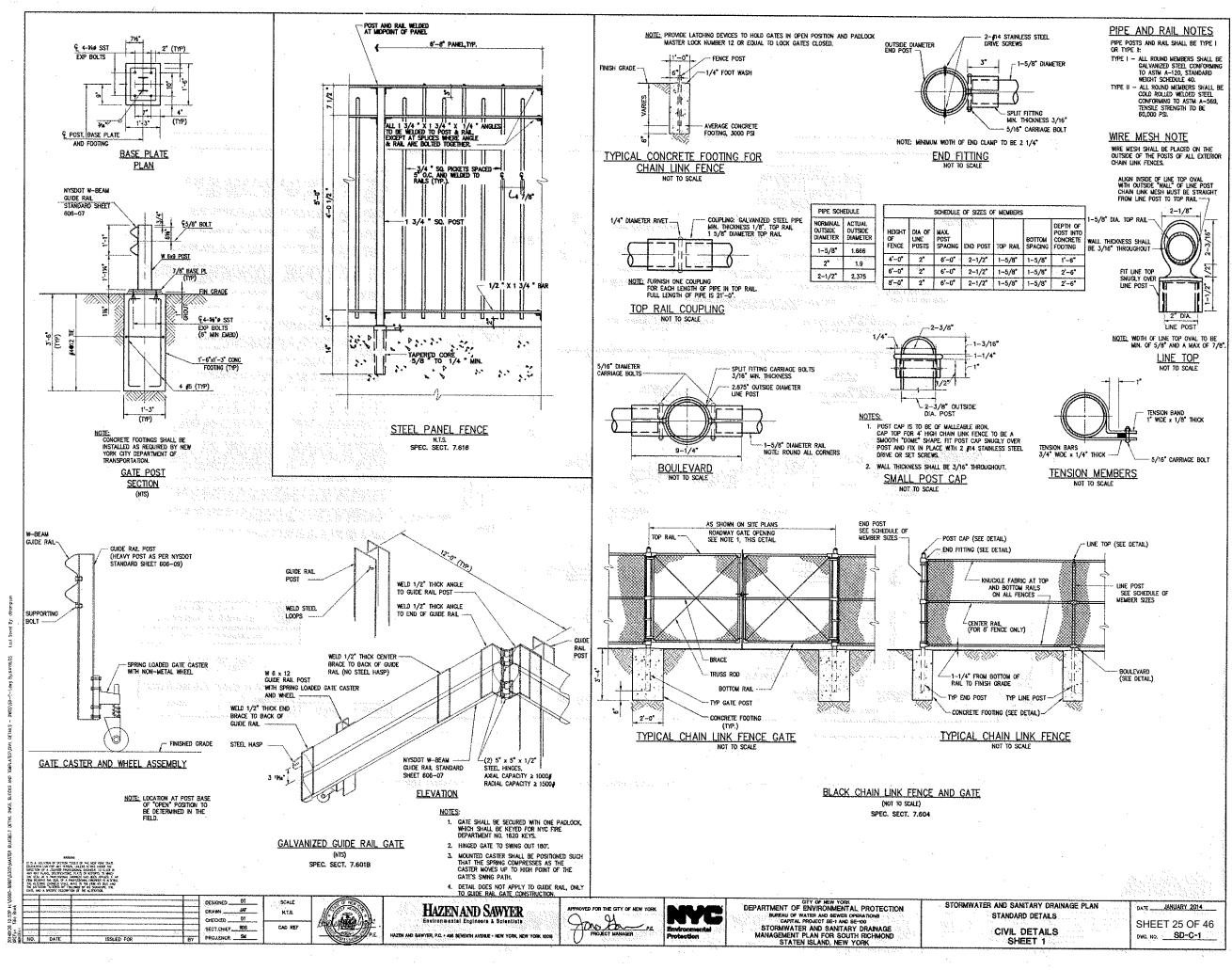


TRASH RACK NOTES:

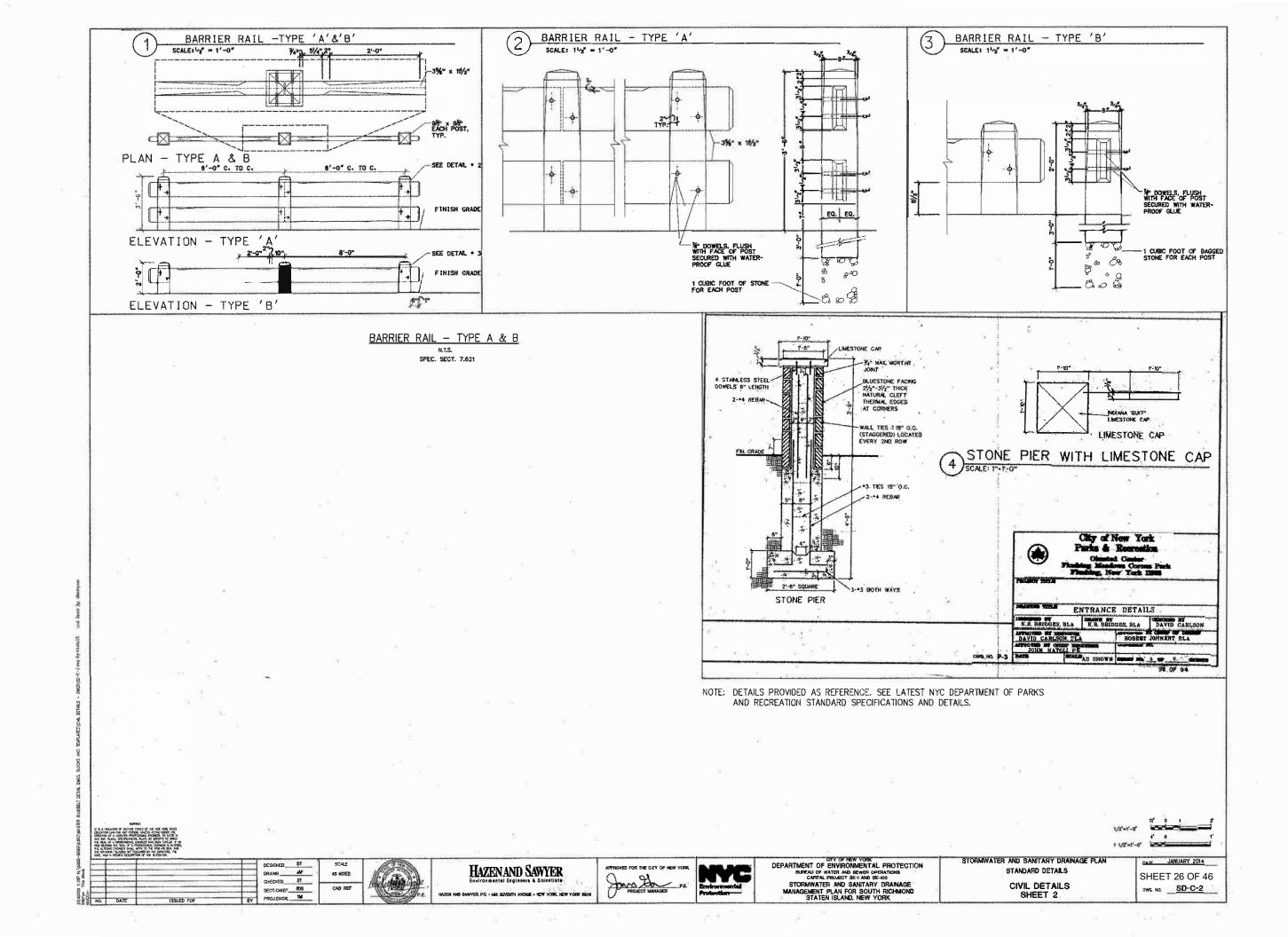
- . ANCHOR BOLT SHALL BE FASTENED WITH AN EPOXY ADHESIVE. ADHESIVE SHALL BE HILTI HIT-RE 500 OR EQUAL SUITABLE FOR USE IN MARINE ENVIRONMENT. ALL MANUFACTURER INSTALLATIONS INSTRUCTIONS AND RECOMMENDATIONS SHALL BE FOLLOWED.
- 2. ALL MEMBERS SHALL BE 316L STAINLESS STEEL.
- 3. ALL FASTENERS SHALL BE STAINLESS STEEL.

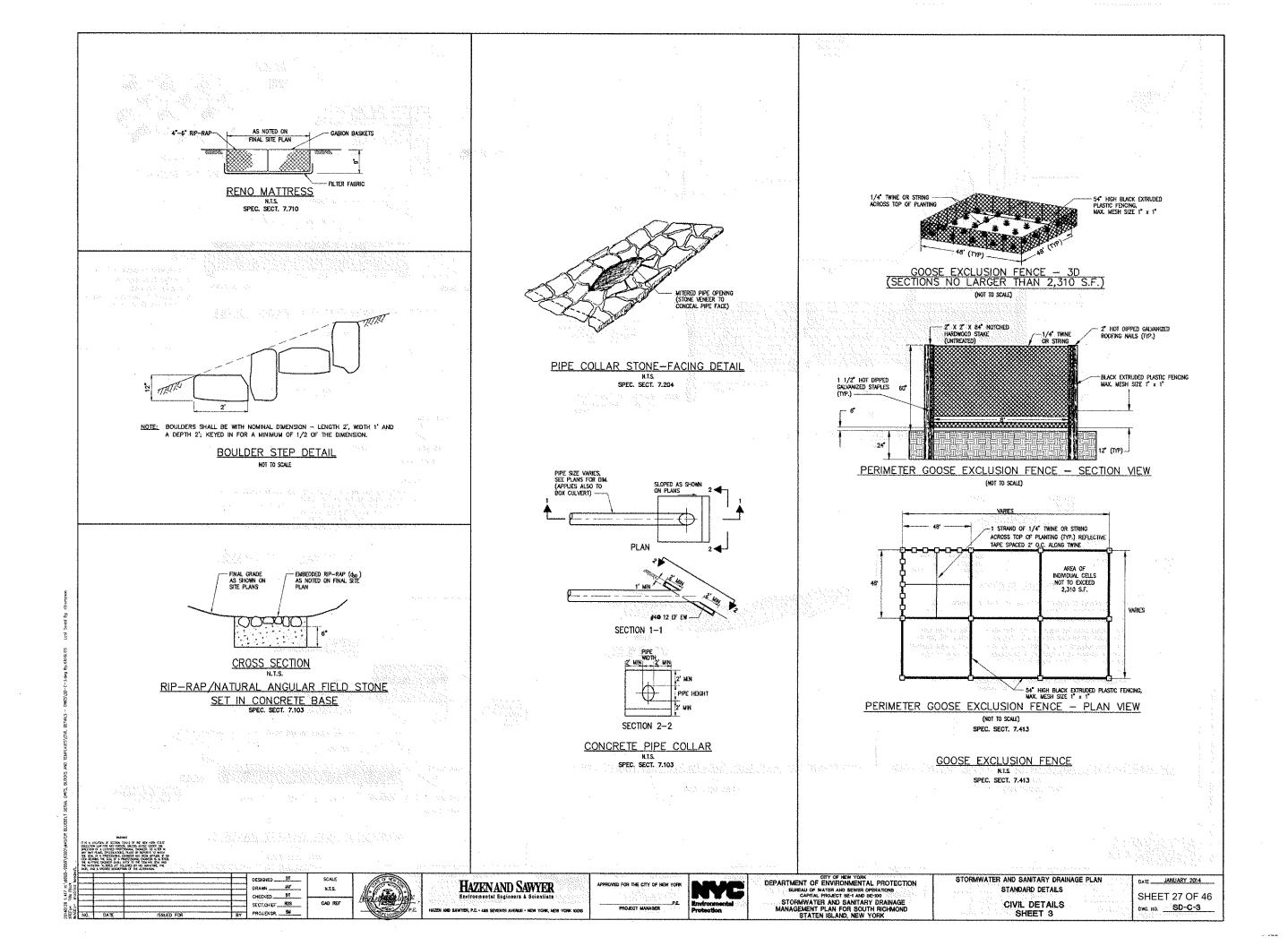


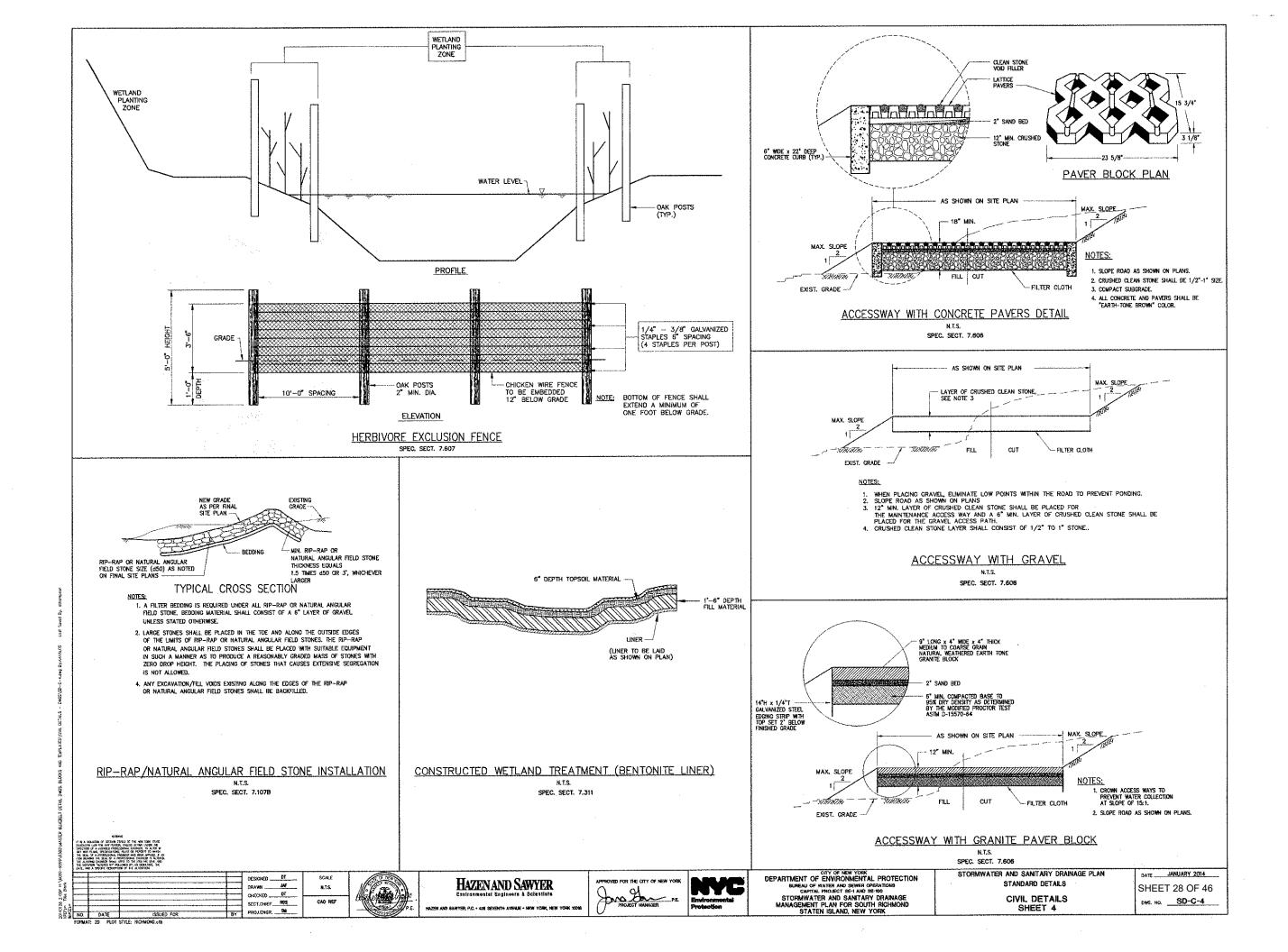


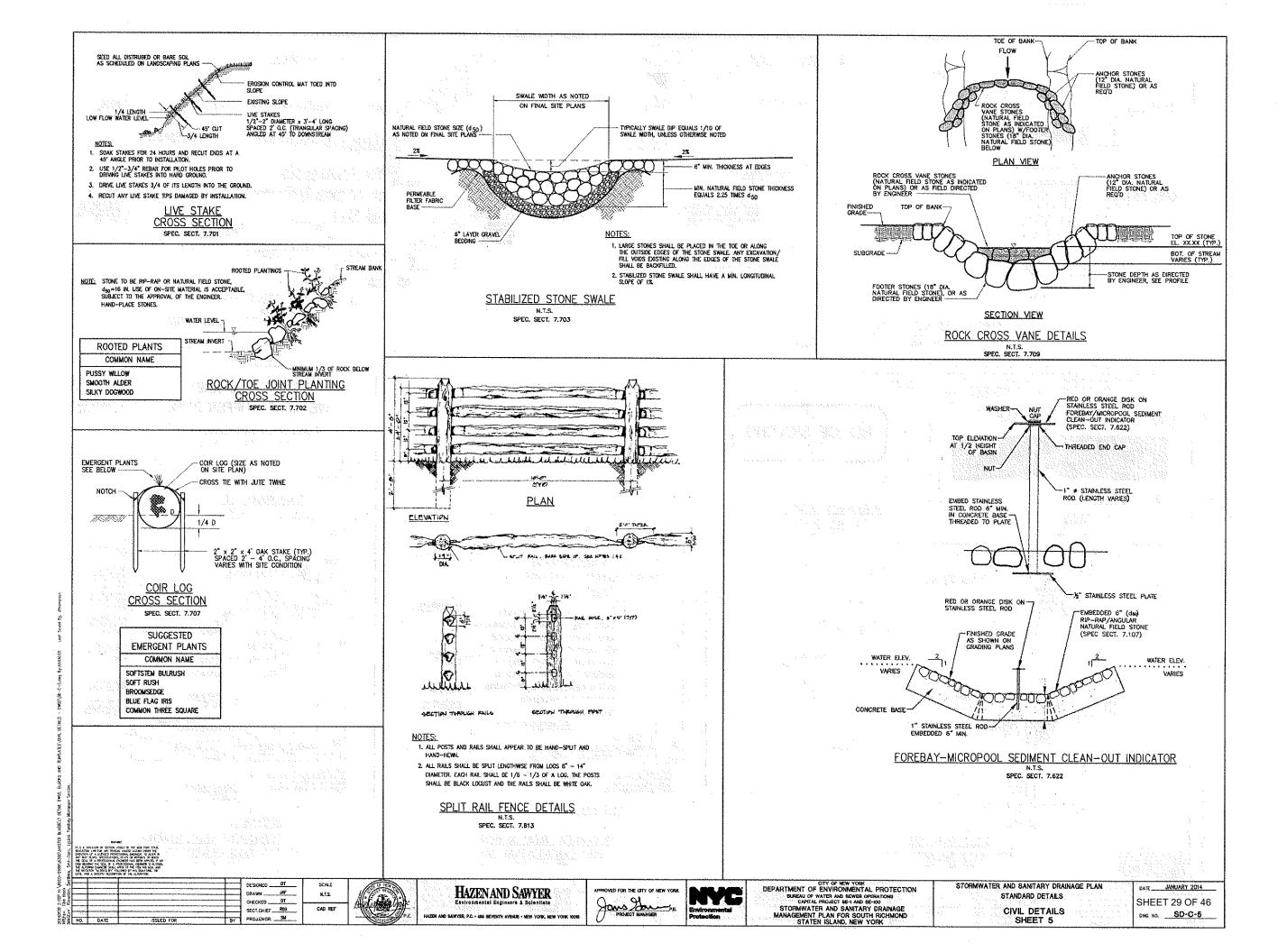


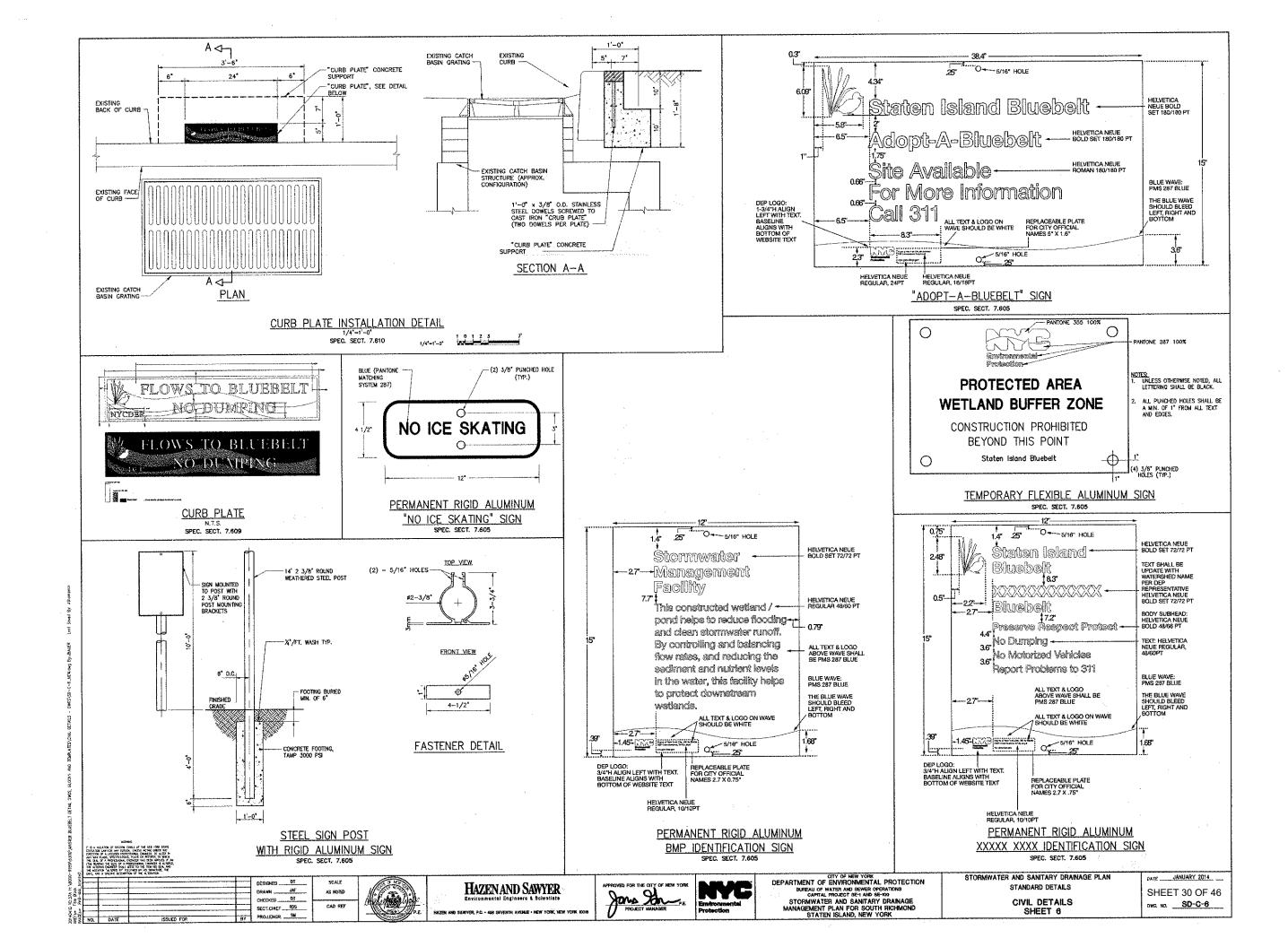
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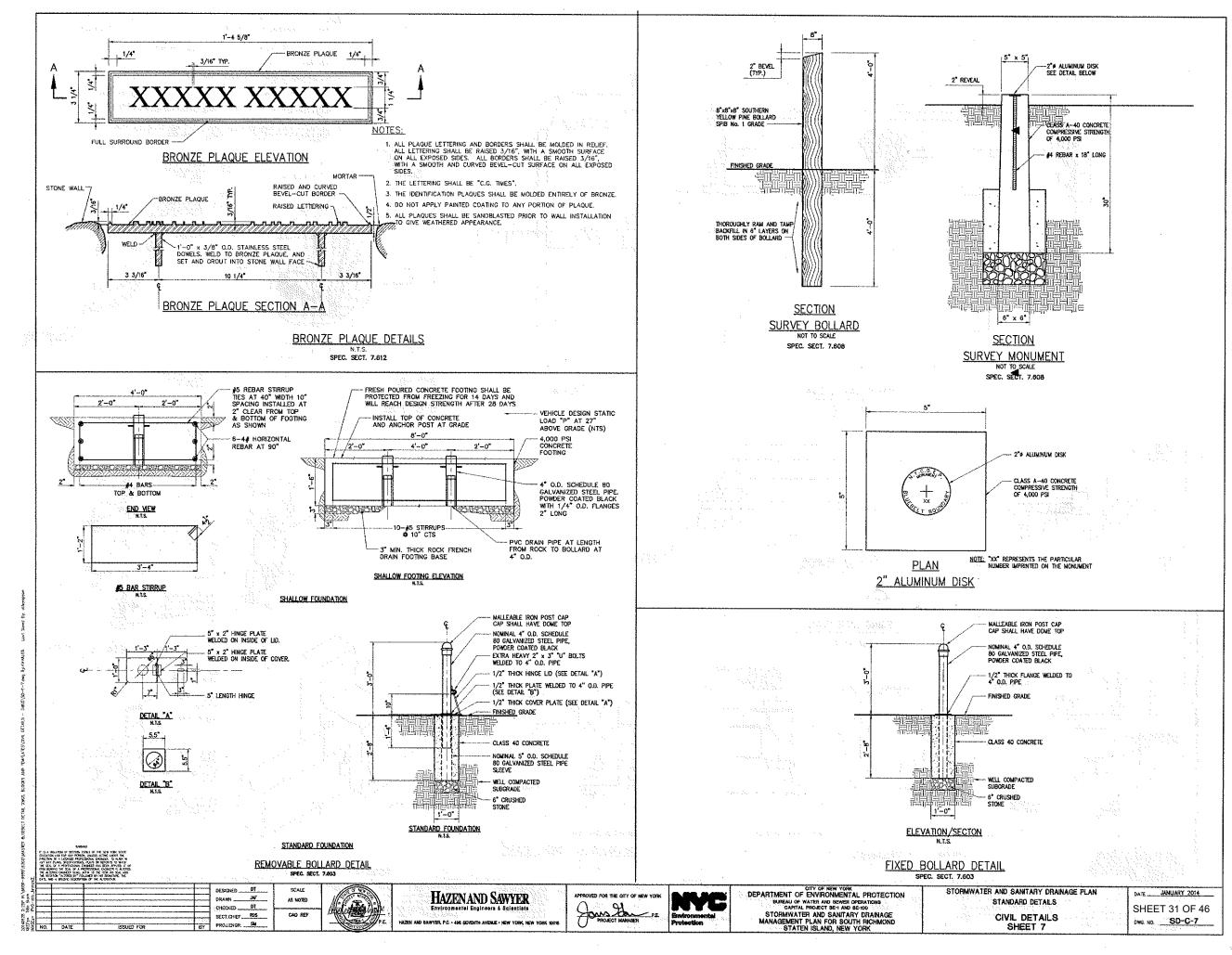




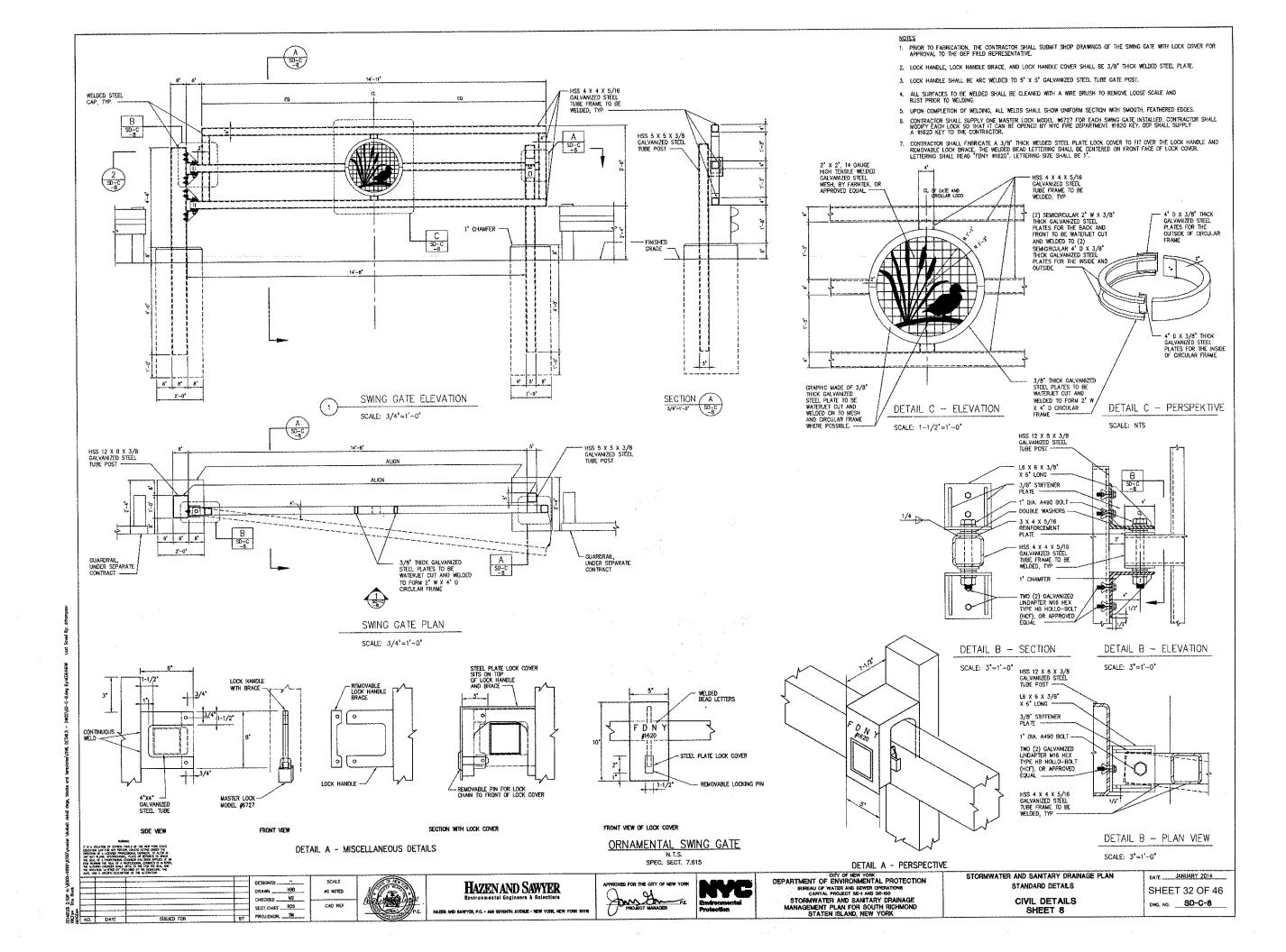


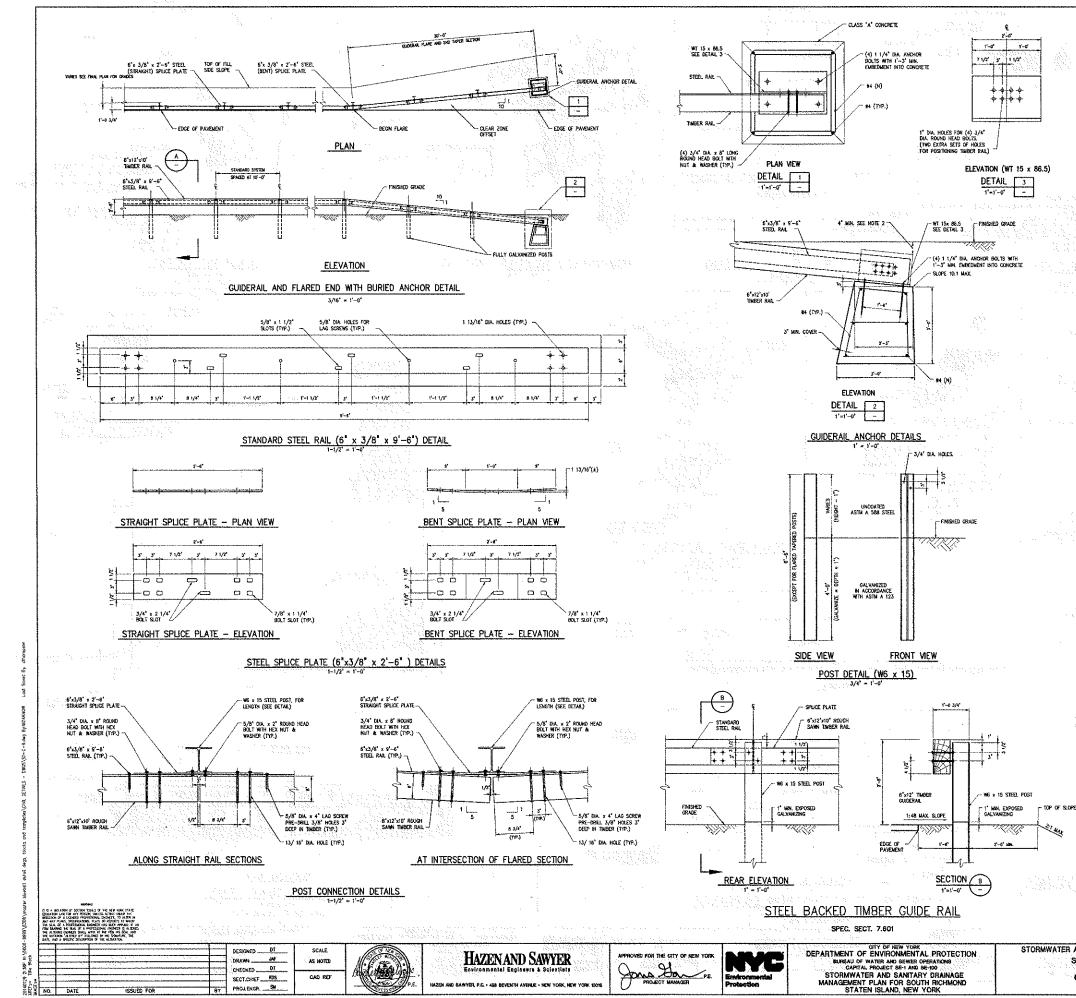






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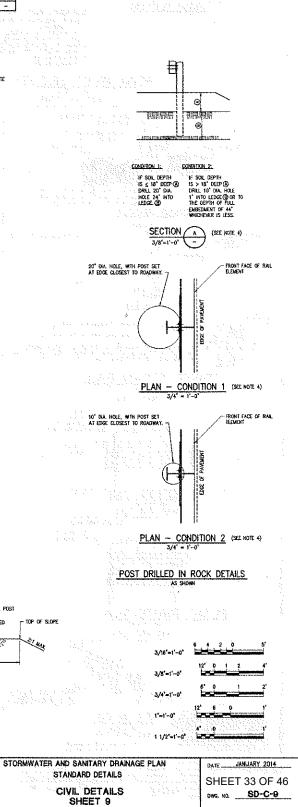
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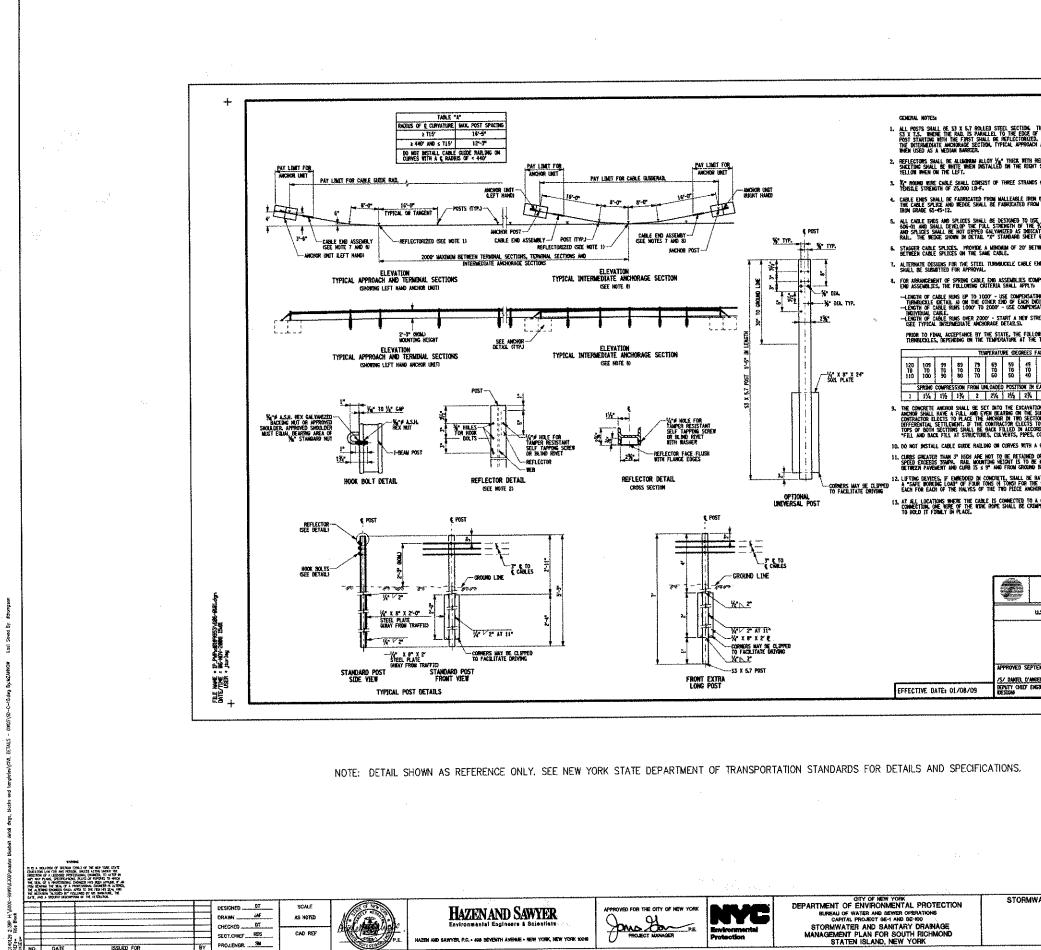
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ISSUED FOR

GENERAL NOTES

- 1. MATERIALS AND CONSTRUCTION OF THE GUIDERAL END ANCHORS SHALL CONFORM TO THE SPECIAL PROMISIONS PROVIDED WITH THE PROJECT ALL MARDWARE IN CONTACT WITH THE GROUND SHALL BE GALVANIZED IN ACCORDANCE WITH THE SPECIAL PROVISION.
- FOR THE END ANCHOR, EXTERD THE FLARE OUTSIDE THE CLEAR ZONE AND BURY THE GUIDERAR, END TO OBTAIN A MINIMUM COVER OF 4*
- THIS DRAWING SHOWS LEADING END ATTACHMENT TO PROPOSED PARAPETS, AT EXISTING PARAPETS ATTACH GUIDERAL USING D.O.T.
- 4. 20' DIA, EXCAVATED HOLE SHALL BE BACKFILLED WITH SUITABLE MATERIA, OR GRANILAR FILL COMPACED IN 6' LETS BETORE DEWING POST OR POSTS MAY BE SST IN EXCAVIDE HOLE AND BACGULED WITH CONTROLLED LOW STRENGTH MATERIA (CLSM). 10' DIA, MOLE SHALL BE BACGULED WITH SUTHALE MATERIAL.
- 5. ALL CONNECTION HARDWARE SHALL BE SUFFICIENTLY TIGHTENED TO ACCOMMODATE FOR SHRWARE OF THE WOOD ELEMENTS.





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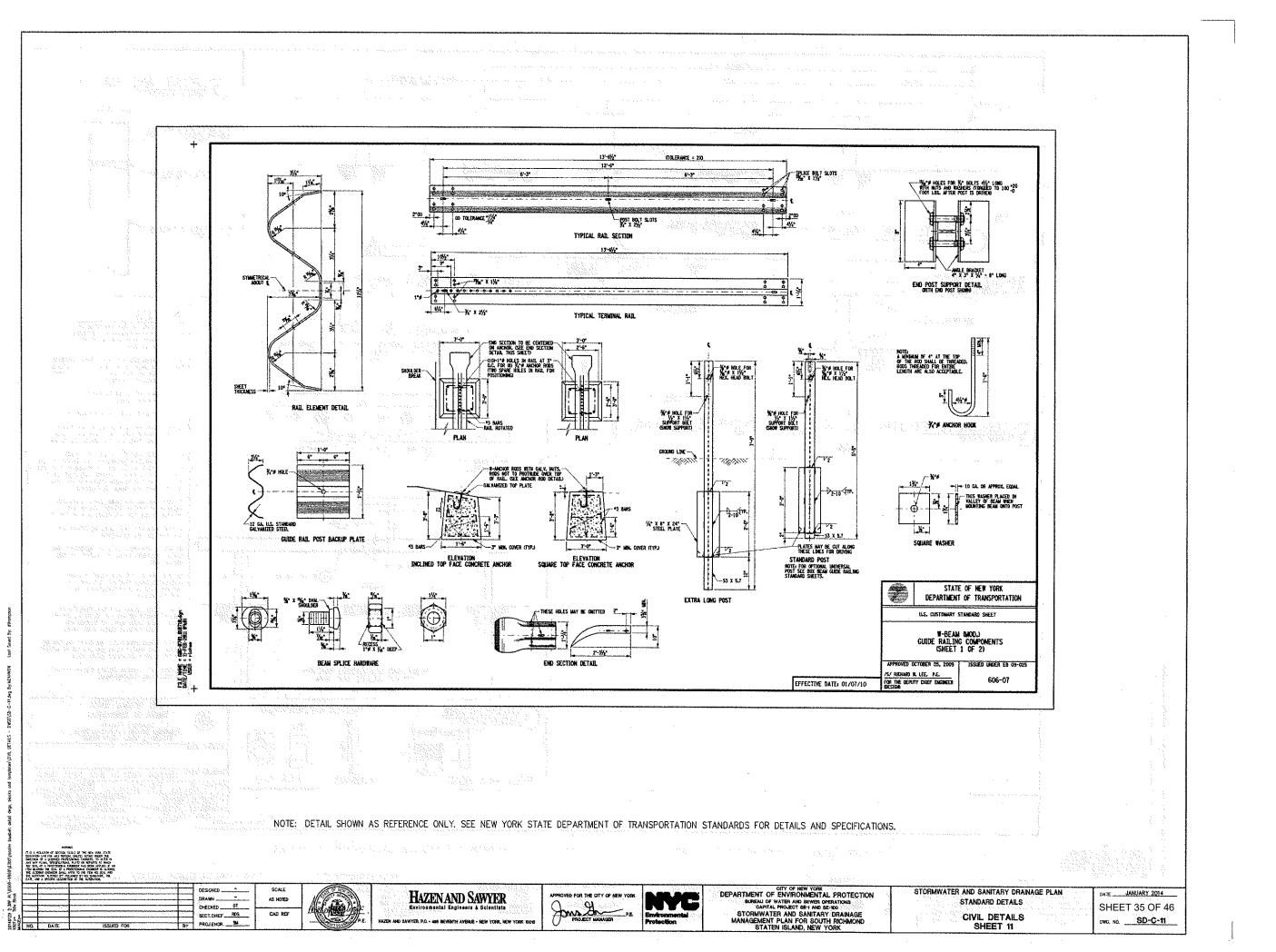
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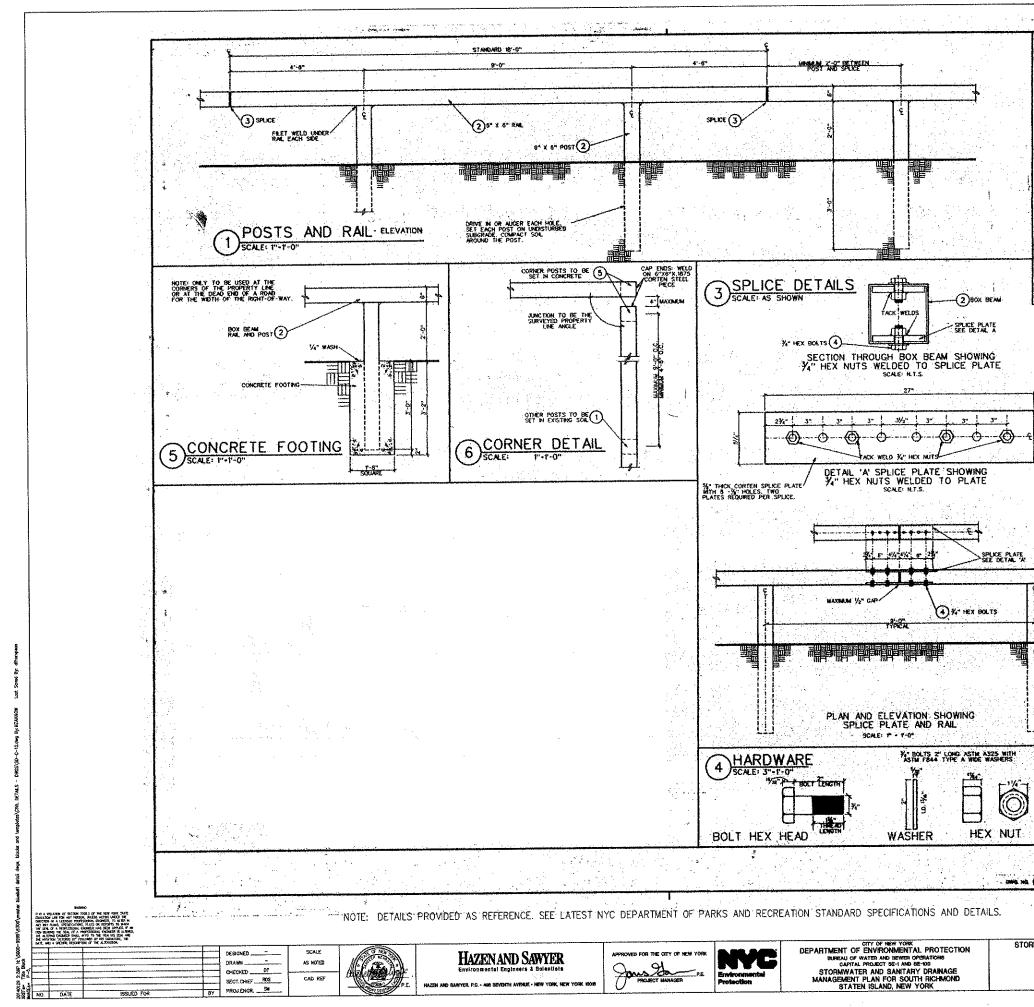
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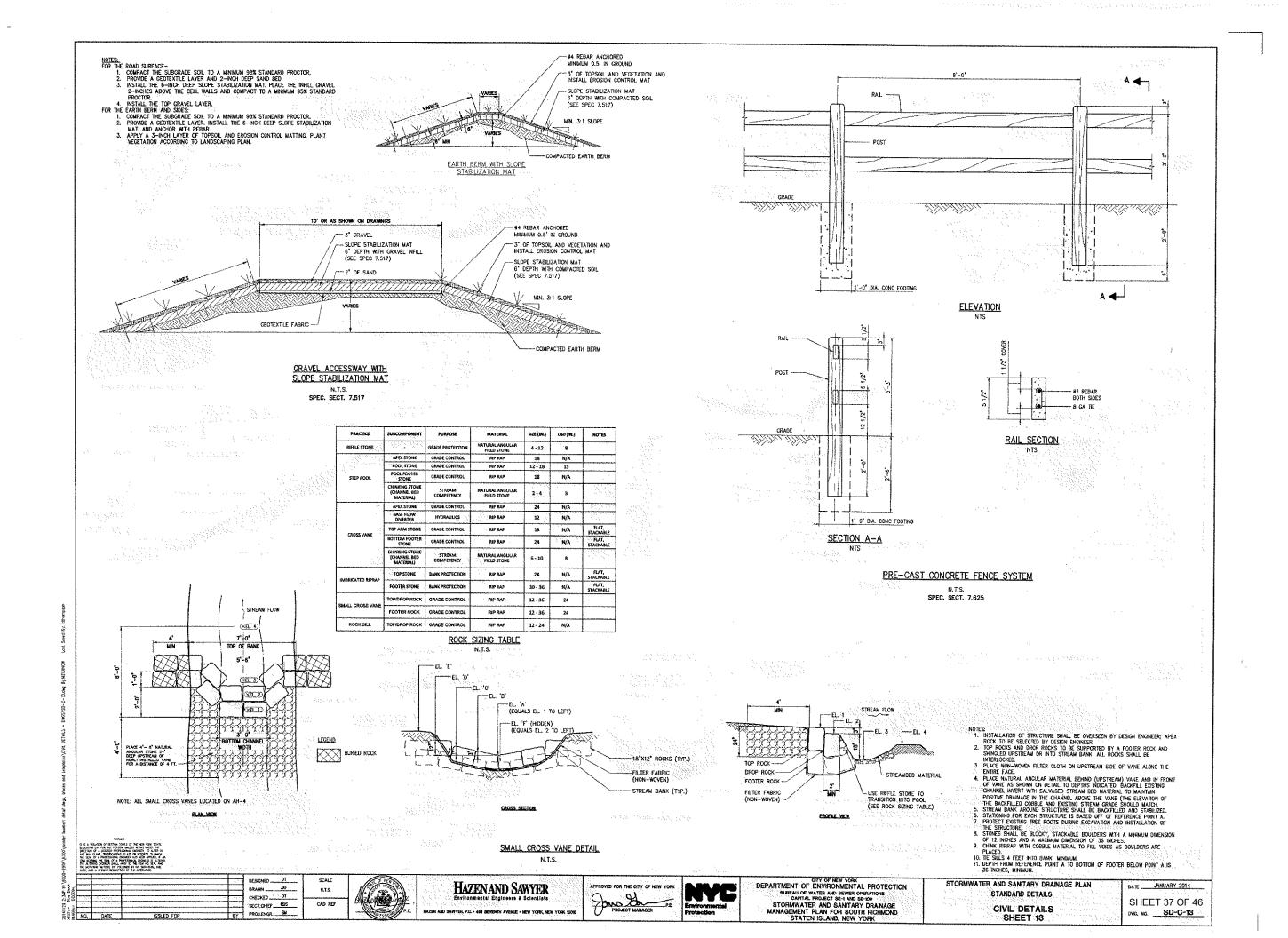
THE ANCHOR POST STUB SHALL BE OF THE ANAMERIT, EVERY SXTH KTHO EGL, DU NOT HERLETORIZE POSTS IN ACH AND TEXNONAL SECTION, OR	
H REFLECTIVE SNEETING, THE REFLECTIVE GHT SIDE OF TRAFFIC AND FLUORESCENT	
NDS (? UZHES FER STRAND) AND HAVE A KONDAUN Non (5715-09) dr Cast Steel (5715-021 Rom Walleadle Dron or Asta Assg Juctile	
LICE, THE MERICE CANNUE NO BY THE "YE STUMMARD SKEET NE YE KONKO DELE SOKON LEN. THE CARES, BIRG NICATU DA MUTERIAL SOKOTERIATION FOR CARES GARE ET GOR-DI SNALL NOT DE GALVANIZER SERVEEN ANY FAIR, PROVINE A KANNAN OF 100"	
E END ASSEMBLY ON SPRING CABLE END ASSEMBLY	
COMPENSATING DEVICES AND TURNBUCKLE CABLE	
ATHNG DEVICE OPETAR, BJ OK ONE END, AND DOTVIDULL CABLE. DEGATING DEVICE OPETAL BJ ON THE ENDS OF EACH STRETCH BY INTERLACING AT LAST PARALLEL POST	
LLOWING VALUES SHALL BE USED TO TICHTEN THE HE TENE OF ADJUSTMENT.	
S FAREWREITI	
0 30 20 10 0 -10 -20 In Each Spridhe - Measured In Incres	
4 3 374 376 374 4 472 Articon as defailed, the bottom of the e subface insider it so that if the	
TOTAL METALLED. THE BOTTOM OF THE CHARGE UNCERT TO DHAT TO THE CTIONS, THERE HALL BE UNTLE OR NO. 5 TO FLACE THE MENGER IN THE OSCIONS, THE COROLARE ENTLY THE REQUIREMENTS OF GUO-3LIS S. COMOUTS, AND BREET SHARL CALLES.	
H A CENTERLINE HADRES OF LESS THAN 440'. ED OR PLACED IF DESIGN, POSTED, ON OPERATING DE MEASURED FROM PAYMENT IF OFFSET NO BENEATIN RUL IF OFFSET NO BENEATIN RUL IF OFFSET	
NO BENEATH RAIL OF OFFSET > 5". E AALED BY THEIR MANUFACTURER AS HAVDNG THE ONE PRECE ANCION AND THE TORS IZ TONSI GARGE WIT.	
O A CABLE SOCKET WITH A WEDGE TIPE RUMPED OVER THE BASE OF THE WEDGE	
STATE OF NEW YORK	
DEPARTMENT OF TRANSPORTATION	
U.S. CUSTOMARY STANDARD SHEET	
CABLE GUIDE RAILING (SHEET 1 OF 3)	
IPTEMBER 19, 2008 ISSUED UNDER EB 08-036	
ENGDREER 606-01	
IWATER AND SANITARY DRAINAGE PLAN	DATE JANUARY 2014
STANDARD DETALS	SHEET 34 OF 46 DWG. NO
SHEET 10	

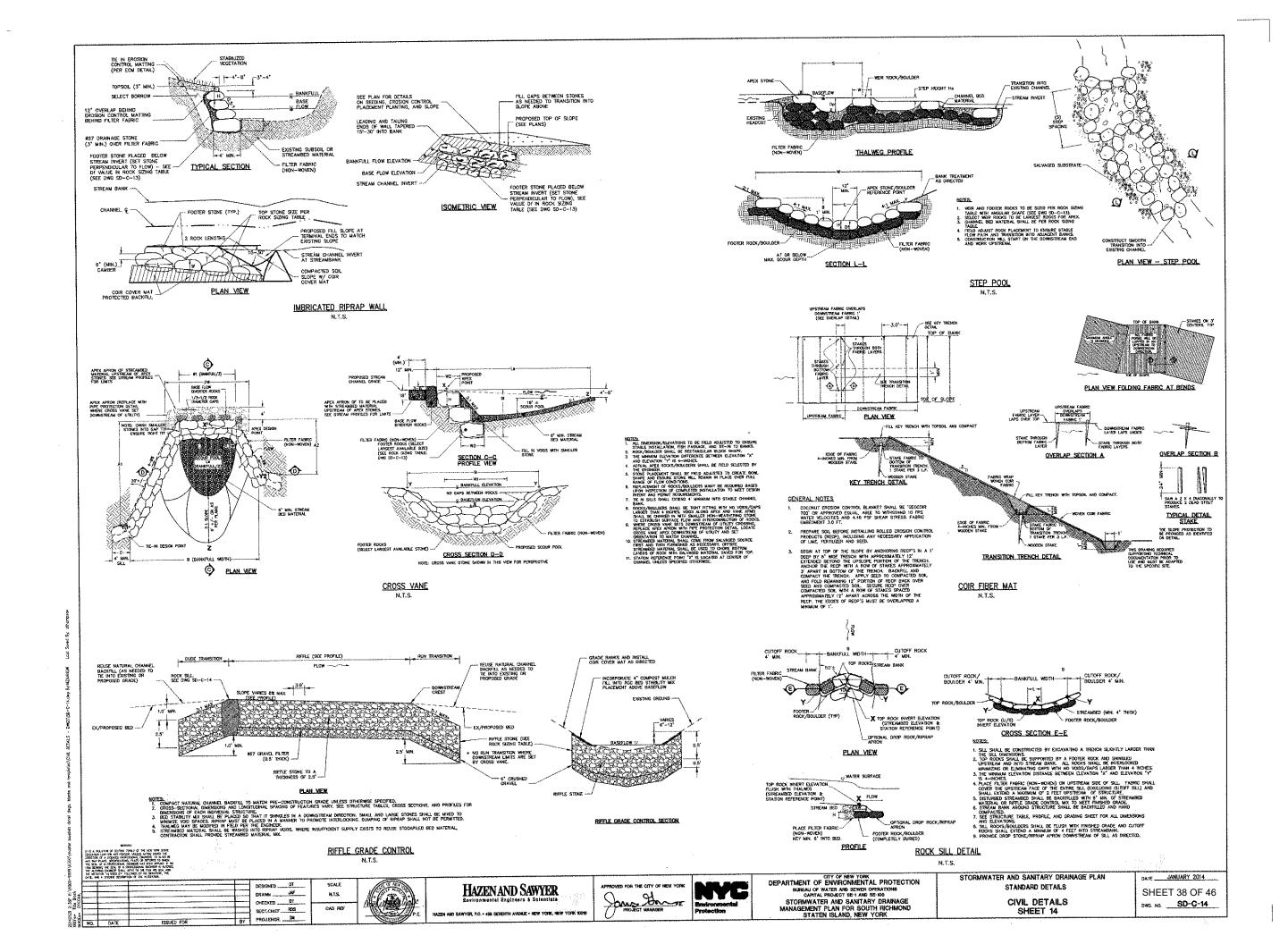


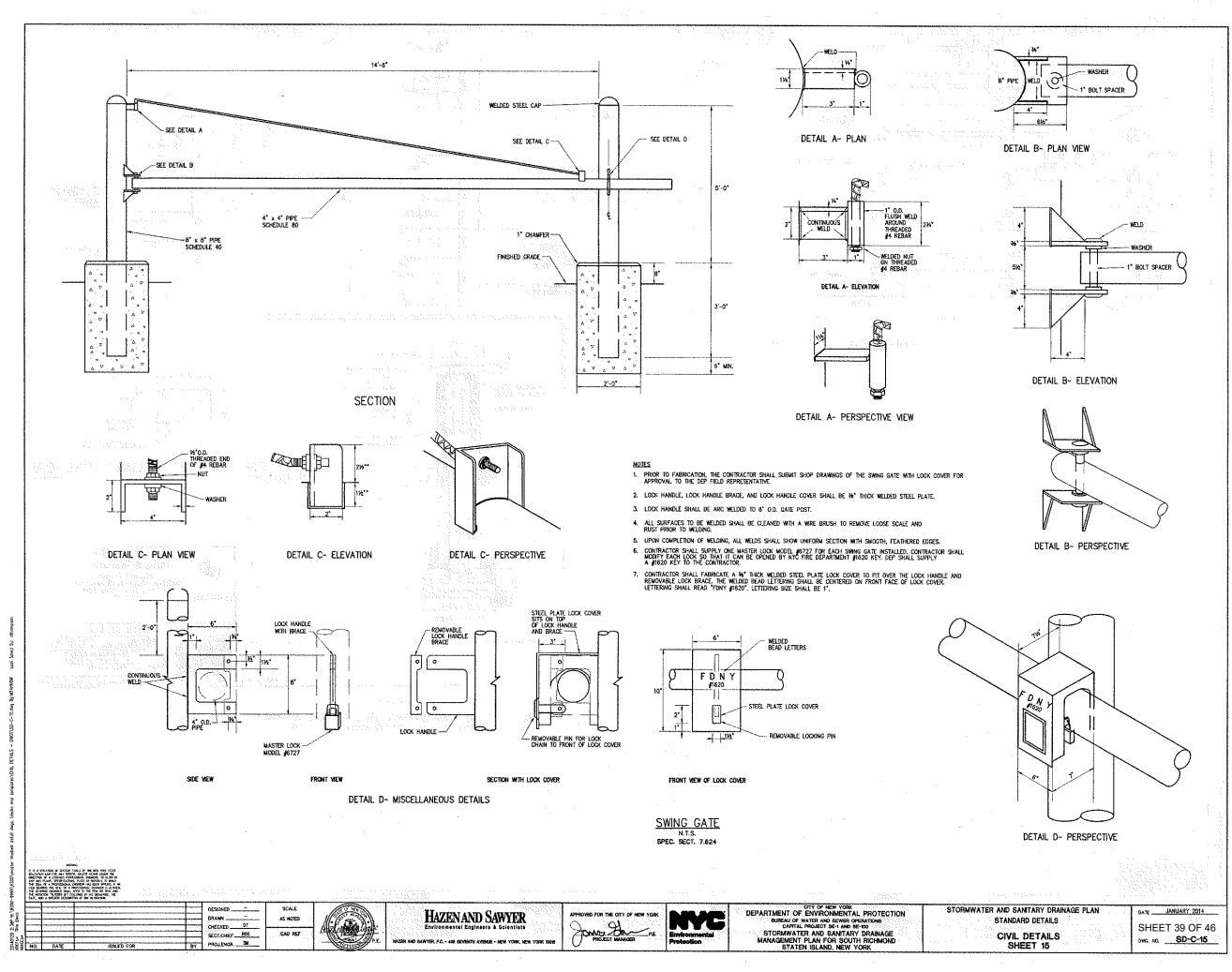
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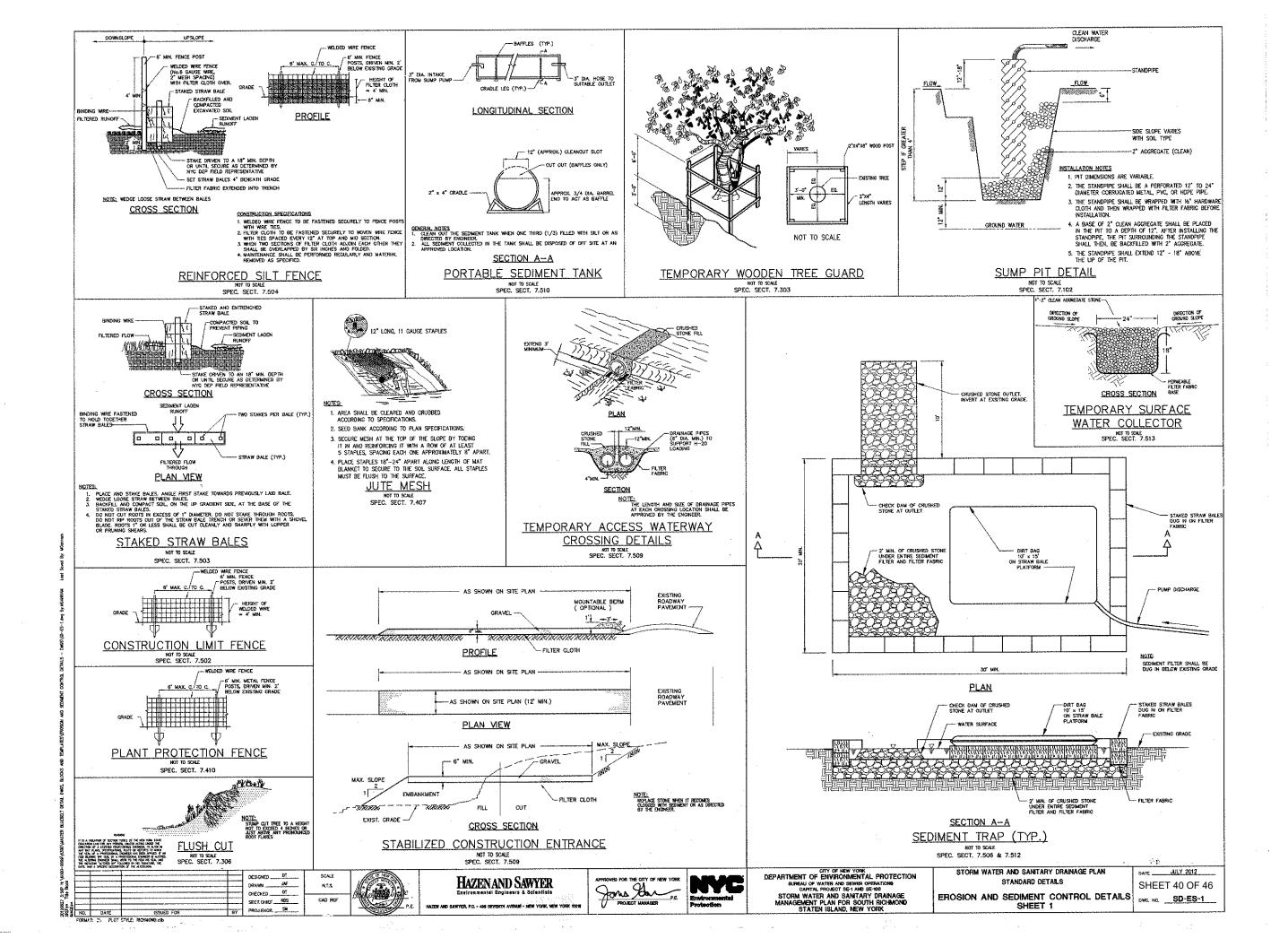


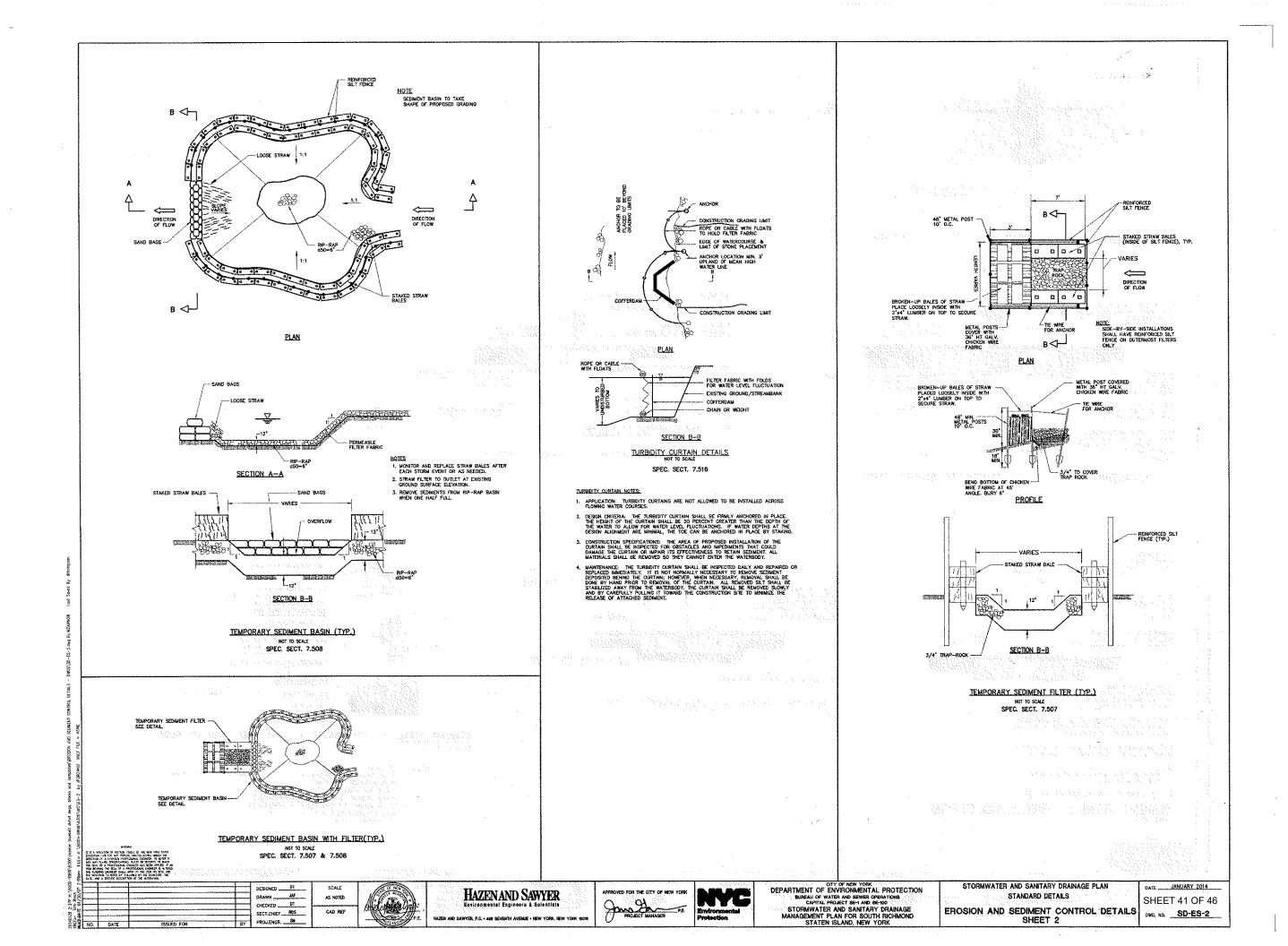
2 POST AND RAIL SCALE: 3"-1"-0" 6" HOLLOW STRUCTURA CONTINUOUS HOLLOW STRUCTURA CONTINUOUS STELL TURNO FOR RAL	- SECTION						
2) SCALE: 3-1-0-	SECTION						
2) SCALE: 3-1-0-							
5" X 5" X .1975" CONTINUOUS	a shara ta ta sa 📕						
6" X 5" X 1875" CONTINUOUS							
HOLLOW STRUCTURAL CONTEN							
STEEL THEFT FOR DOLL							
FALLER WELD ON FRONT							
8" X 8" X 1875" CONTRADULS HOLLOW STRUCTURAL CORTEN STEEL TURING FOR POST							
NOTES							
1. ALL CUSTOM CORTEN BOX BEAN SET ON THE DRY PROPERTY LINE	(D.O.T.						
RIGHT-OF-WAY), IT IS NOT TO BE D.O.T. RIGHT OF WAY,							
2. REMFORCED DOX DEAM RAIL IN FOOTING) IS ONLY TO BE USED AT OF STREETS ON THE D.O.T. R.O.W.	T THE DEAD END						
I.ME CORNERS. SEE DETAL 5. 3. ALL RARS POSTS AND HARDWA	HE ARE TO BE						
CORTEN (RUSTING) STEEL.	XMAM OF 9" 0"						
5. RALS AND POSTS SHALL BEGA CORNERS, THERE SHALL BE A MAX	IMUM 4" GAP						
BETWEEN THE ENDS CAP THE END 5, ANY TREE OVER 12" CALIPER O	DS, SEE DETAIL 6.						
OBSTRUCTION ENCOUNTERED ON THE PROPERTY LINE.							
THE RAL SHALL STOP T BEFORE A AFTER IT, IF IT IS N POOR CONDU (OR OBSTRUCTION) SHALL BE REM	TION THE TREE NOVED.						
7. CLEARING AND CRUBBING SHALL WAXIMUM OF T-0" ON ETTHER SIDE PROPERTY LINE FOR THE PLACEM	OCCUR FOR A						
8. THE PROPERTY LINE SHALL BE A LISCENSED LAND SURVEYOR.							
9. ORIVE EACH POST, AUGEN # HE LARGE MACHINERY SHALL BE ALLO							
WOODLANDS.							
COMPLETED, SHALL PRESENT A SM PLEASING LINE IN BOTH HORIZONTA VENTICAL PLANES	OOTH AND						
N 등 제 : 2011년 1월 2011	ICMOVED FOR						
THE PLACE WOODY PLANT MADERIAL R THE PLACEMENT OF THE RM. IS T THOSE WOOD CHIES STALL BE DER FOR USE ON BLUE HERON PA	RNED OVER TO REALS.						
11. PEDESTRIAN ENTRANCES ARE B BERCH PARK MASTER PLAN AND A BY OPR CAPITAL PROJECTS STAFF	RE TO BE LOCATED						
12. CONTACT OLINSTED CENTER C. AT TELEPHONE (718) 789-8613.							
Oby d New York							
CUSTOM CORTEN BOX	BEAM RAIL						
T.R. BRIDGES, RLA K.R. BRIDGES, RLA	OVHOIP SINGH, PR						
ICHIN MATCHINE	POHNERT, HLA						
A P.S NUME WORLD AS SHOWN MORE IN.	OF 94.						
ngan di Santa S Santa Santa Sant	e stjere verstander og var i derek 🕻						
· · · · · ·	· · ·						
DRMWATER AND SANITARY DRAINAGE PLAN STANDARD DETAILS SHEET 36 OF 46							
	ВНЕЕТ 30 ОР 40 ржа. но. <u>SD-C-12</u>						
CIVIL DETAILS SHEET 12	1						

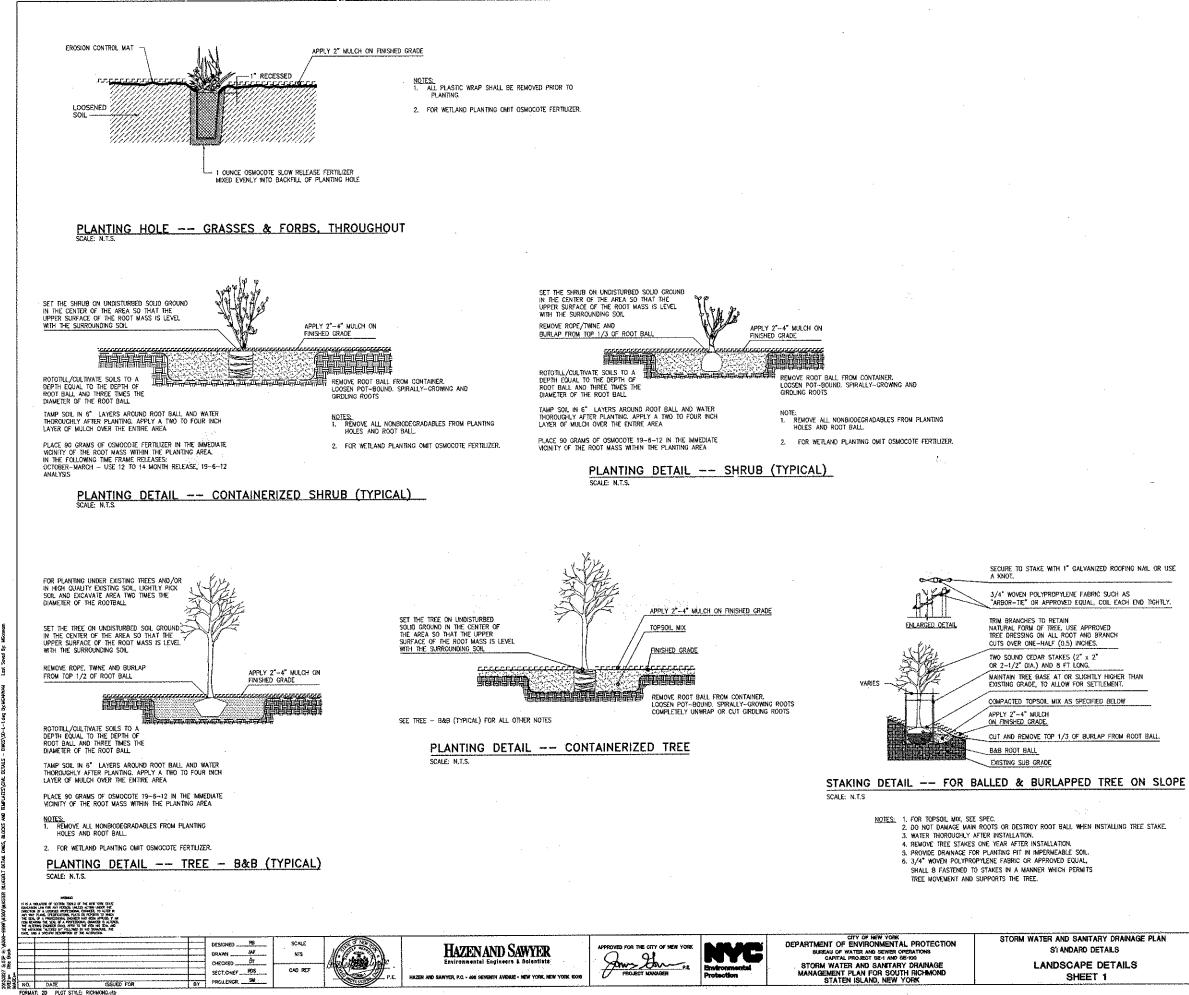












CUTS OVER ONE-HALF (0.5) INCHES.

TWO SOUND CEDAR STAKES (2" x 2" OR 2-1/2" DIA.) AND 8 FT LONG. MAINTAIN TREE BASE AT OR SLIGHTLY HIGHER THAN EXISTING GRADE, TO ALLOW FOR SETTLEMENT.

COMPACTED TOPSOIL MIX AS SPECIFIED BELOW

S'I ANDARO DETAILS

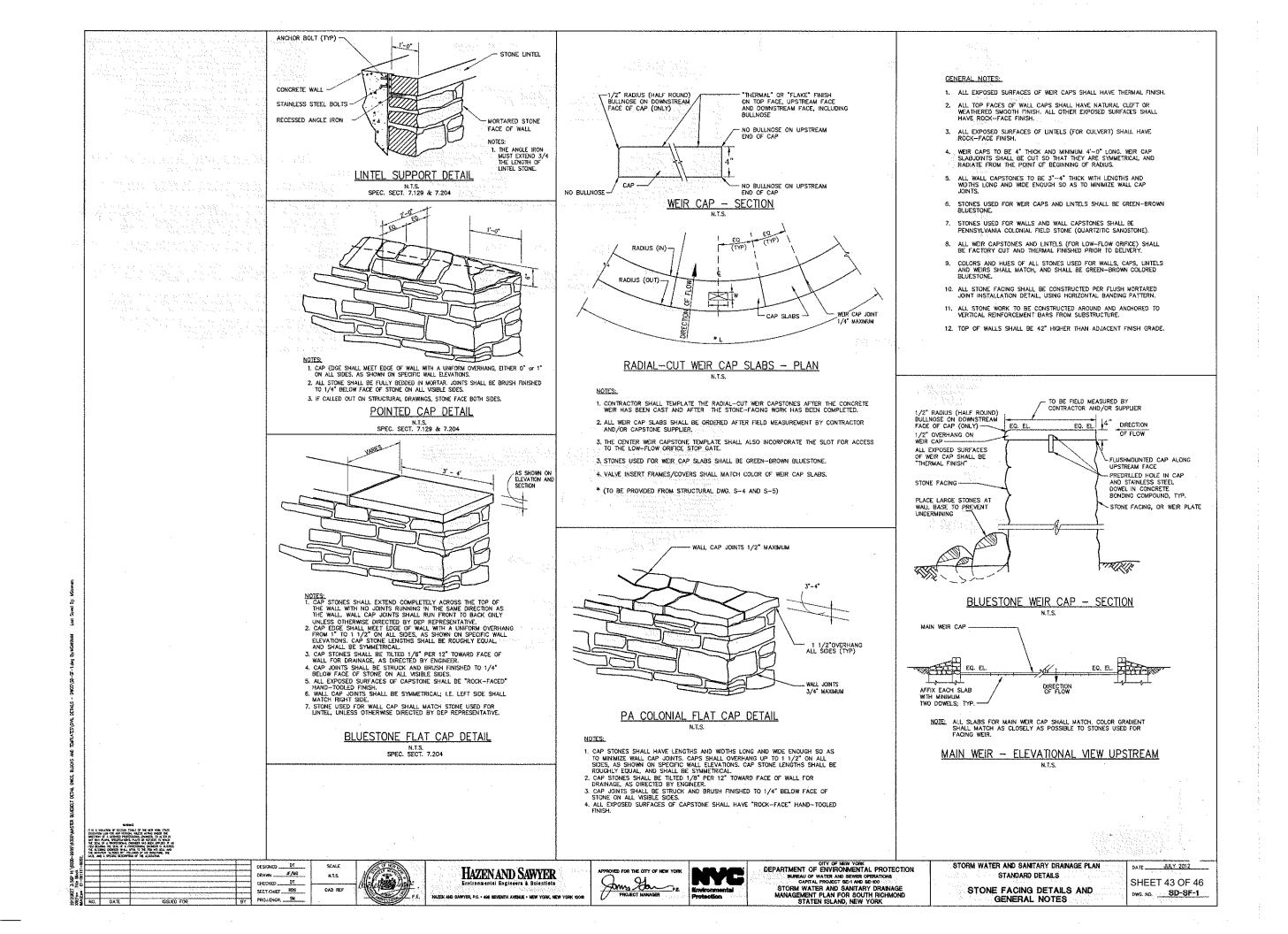
LANDSCAPE DETAILS

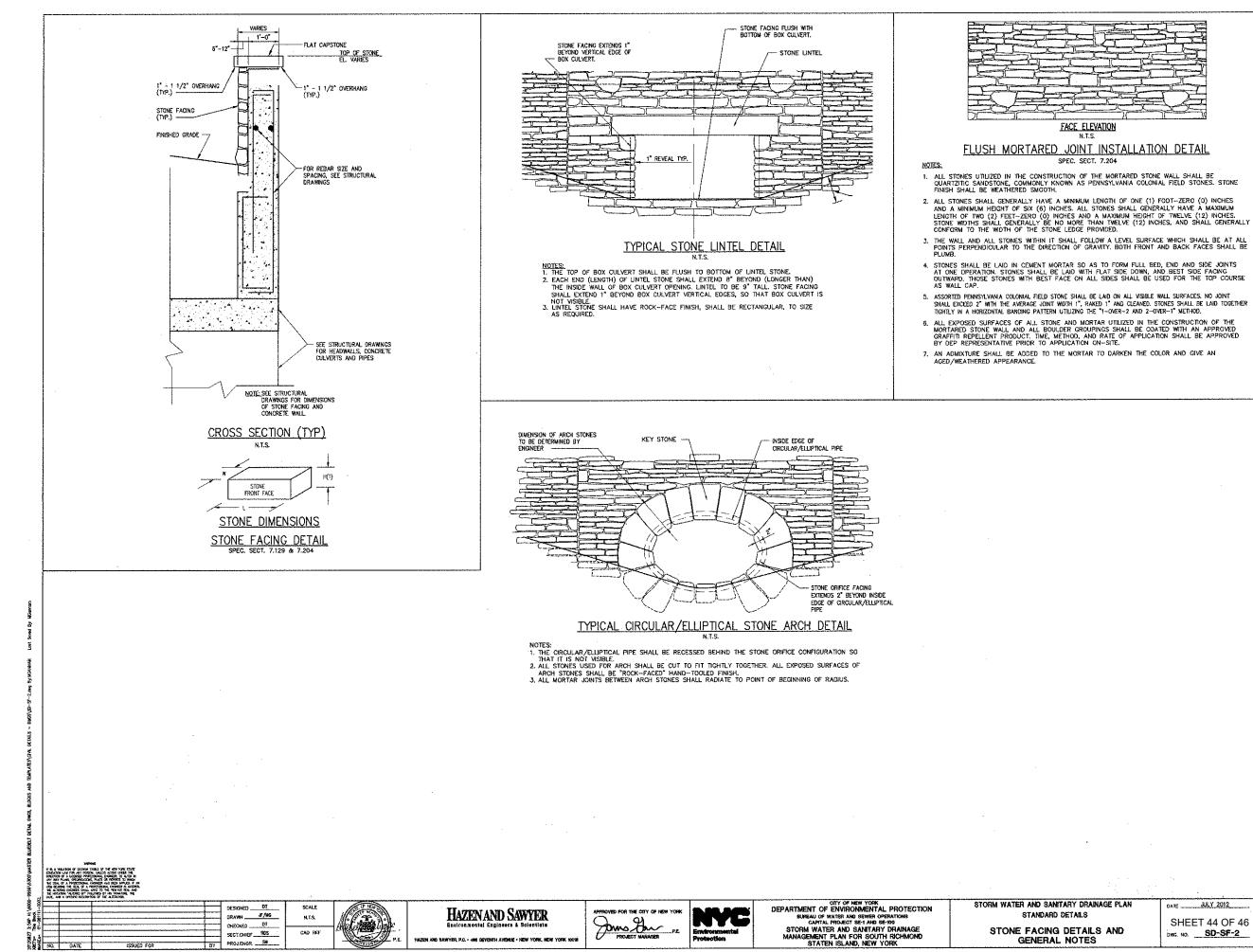
SHEET 1

DATE JULY 2012

SHEET 42 OF 46

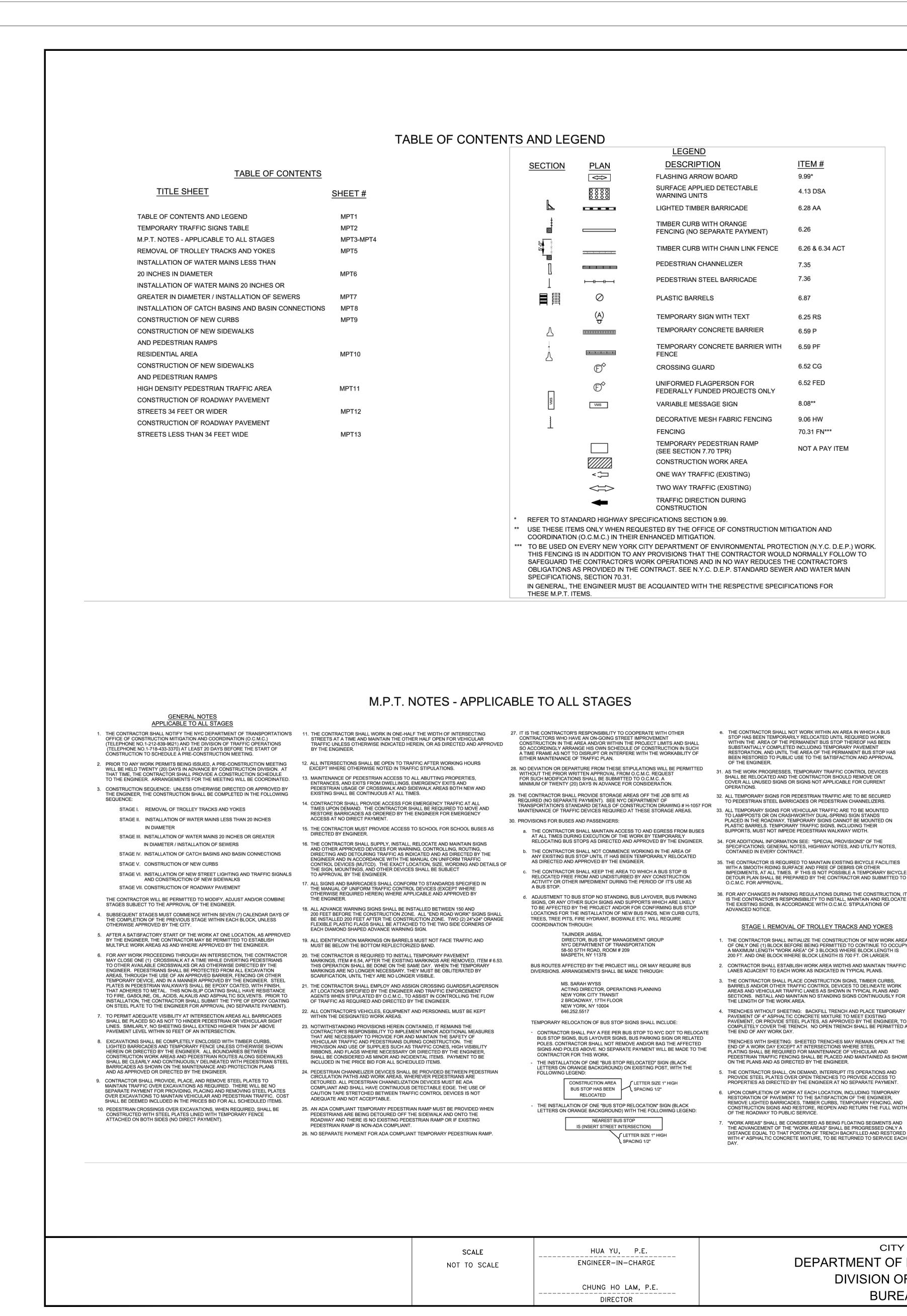
TRIM BRANCHES TO RETAIN NATURAL FORM OF TREE, USE APPROVED TREE DRESSING ON ALL ROOT AND BRANCH





.5.

SHEET 44 OF 46 DWG. NO. SD-SF-2



LEGEND					
SECTION	PLAN	DESCRIPTION	ITEM #		
	\Rightarrow	FLASHING ARROW BOARD	9.99*		
		SURFACE APPLIED DETECTABLE WARNING UNITS	4.13 DSA		
		LIGHTED TIMBER BARRICADE	6.28 AA		
		TIMBER CURB WITH ORANGE FENCING (NO SEPARATE PAYMENT)	6.26		
۲ ۲ ۲ ۲		TIMBER CURB WITH CHAIN LINK FENCE	6.26 & 6.34 ACT		
		PEDESTRIAN CHANNELIZER	7.35		
Ī		PEDESTRIAN STEEL BARRICADE	7.36		
	\oslash	PLASTIC BARRELS	6.87		
	(A) 0	TEMPORARY SIGN WITH TEXT	6.25 RS		
厶		TEMPORARY CONCRETE BARRIER	6.59 P		
, i i i i i i i i i i i i i i i i i i i		TEMPORARY CONCRETE BARRIER WITH FENCE	6.59 PF		
	\mathbb{D}^{\diamond}	CROSSING GUARD	6.52 CG		
	¢	UNIFORMED FLAGPERSON FOR FEDERALLY FUNDED PROJECTS ONLY	6.52 FED		
SWA	VMS	VARIABLE MESSAGE SIGN	8.08**		
		DECORATIVE MESH FABRIC FENCING	9.06 HW		
1 I I I I I I I I I I I I I I I I I I I		FENCING	70.31 FN***		
		TEMPORARY PEDESTRIAN RAMP (SEE SECTION 7.70 TPR)	NOT A PAY ITEM		
		CONSTRUCTION WORK AREA			
		ONE WAY TRAFFIC (EXISTING)			
	$\langle = \rangle$	TWO WAY TRAFFIC (EXISTING)			
	-	TRAFFIC DIRECTION DURING CONSTRUCTION			
* REFER TO STANDARD HIGHWAY SPECIFICATIONS SECTION 9.99.					
** USE THESE ITEMS ONLY WHEN REQUESTED BY THE OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (O.C.M.C.) IN THEIR ENHANCED MITIGATION.					
*** TO BE USED ON EVERY NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION (N.Y.C. D.E.P.) WORK. THIS FENCING IS IN ADDITION TO ANY PROVISIONS THAT THE CONTRACTOR WOULD NORMALLY FOLLOW TO SAFEGUARD THE CONTRACTOR'S WORK OPERATIONS AND IN NO WAY REDUCES THE CONTRACTOR'S OBLIGATIONS AS PROVIDED IN THE CONTRACT. SEE N.Y.C. D.E.P. STANDARD SEWER AND WATER MAIN SPECIFICATIONS, SECTION 70.31.					
IN GENERAL, THE ENGINEER MUST BE ACQUAINTED WITH THE RESPECTIVE SPECIFICATIONS FOR THESE M.P.T. ITEMS.					

	TEMPORARY TRAFFIC SIGNS TABL							
NAME	SIGN	MUTCD CODE	COLOR CODE	SIZE	DESCRIPTION			
(A)	ROAD WORK AHEAD	W20-1	А	36"X36"	ROAD WORK AHEAD			
(B)	DETOUR AHEAD	W20-2	А	36"X36"	DETOUR AHEAD			
(C1)		M4-9	А	30"X24"	DETOUR (WITH ARRO			
(C2)		M4-9L	А	30"X24"	DETOUR (WITH LEFT			
(C3)	DETOUR	M4-9R	А	30"X24"	DETOUR (WITH RIGHT			
(DL)	$\langle \mathbf{s} \rangle$	W1-4	А	30"X30"	LARGE ARROW KEEP			
(DR)	$\langle \rangle$	W1-4	А	30"X30"	LARGE ARROW KEEP			
(E)	ROAD CLOSED	R11-2	в	48"X30"	ROAD CLOSED			
(F)	ROAD CLOSED LOCAL TRAFFIC ONLY	R11-3a	В	60"X30"	ROAD CLOSED (EXCE LOCAL & EMERGENC			
(GL)		W1-6L	А	48"X24"	ONE WAY (ARROW PO LEFT)			
(GR)		W1-6R	A	48"X24"	ONE WAY (ARROW PO RIGHT)			
(K)	SIDEWALK CLOSED AHEAD CROSS HERE SIDEWALK CLOSED AHEAD CROSS HERE	R9-11	В	24"X18"	SIDEWALK CLOSED, CROSS HERE (WITH A			
(L)	SIDEWALK CLOSED USE OTHER SIDE SIDEWALK CLOSED USE OTHER SIDE	R9-10	В	24"X12"	SIDEWALK CLOSED, U OTHER SIDE (WITH A			
(M)	\odot	R3-2	В	24"X24"	NO LEFT TURN			
(N)	R	R3-1	В	24"X24"	NO RIGHT TURN			
(0)	END ROAD WORK	G20-2	A	36"X18"	END ROAD WORK			
(P)	(II)	W6-3	А	36"X36"	TWO WAY TRAFFIC			

- e. THE CONTRACTOR SHALL NOT WORK WITHIN AN AREA IN WHICH A BUS STOP HAS BEEN TEMPORARILY RELOCATED UNTIL REQUIRED WORK WITHIN THE AREA OF THE PERMANENT BUS STOP THEREOF HAS BEEN SUBSTANTIALLY COMPLETED INCLUDING TEMPORARY PAVEMENT RESTORATION, AND UNTIL THE AREA OF THE PERMANENT BUS STOP HAS BEEN RESTORED TO PUBLIC USE TO THE SATISFACTION AND APPROVAL F THE ENGINEER.
- 31. AS THE WORK PROGRESSES, TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE RELOCATED AND THE CONTRACTOR SHOULD REMOVE OR COVER ALL UNUSED SIGNS OR SIGNS NOT APPLICABLE FOR CURRENT
- 32 ALL TEMPORARY SIGNS FOR PEDESTRIAN TRAFFIC ARE TO BE SECURED O PEDESTRIAN STEEL BARRICADES OR PEDESTRIAN CHANNELIZERS. 33. ALL TEMPORARY SIGNS FOR VEHICULAR TRAFFIC ARE TO BE MOUNTED O LAMPPOSTS OR ON CRASHWORTHY DUAL-SPRING SIGN STANDS PLACED IN THE ROADWAY, TEMPORARY SIGNS CANNOT BE MOUNTED ON PLASTIC BARRELS, TEMPORARY TRAFFIC SIGNS, INCLUDING THEIR SUPPORTS, MUST NOT IMPEDE PEDESTRIAN WALKWAY WIDTH.
- 34. FOR ADDITIONAL INFORMATION SEE: "SPECIAL PROVISIONS" OF THE SPECIFICATIONS; GENERAL NOTES, HIGHWAY NOTES, AND UTILITY NOTES, CONTAINED IN EVERY CONTRACT. 35. THE CONTRACTOR IS REQUIRED TO MAINTAIN EXISTING BICYCLE FACILITIES
- WITH A SMOOTH RIDING SURFACE AND FREE OF DEBRIS OR OTHER IMPEDIMENTS, AT ALL TIMES. IF THIS IS NOT POSSIBLE A TEMPORARY BICYCLE DETOUR PLAN SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO O.C.M.C. FOR APPROVAL 36. FOR ANY CHANGES IN PARKING REGULATIONS DURING THE CONSTRUCTION, IT
- IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL, MAINTAIN AND RELOCATE THE EXISTING SIGNS. IN ACCORDANCE WITH O.C.M.C. STIPULATIONS OF ADVANCED NOTICE. STAGE I. REMOVAL OF TROLLEY TRACKS AND YOKES
- 1. THE CONTRACTOR SHALL INITIALIZE THE CONSTRUCTION OF NEW WORK AREA OF ONLY ONE (1) BLOCK BEFORE BEING PERMITTED TO CONTINUE TO OCCUPY A MAXIMUM LENGTH "WORK AREA" OF 3 BLOCKS WHERE BLOCK LENGTH IS
- 200 FT. AND ONE BLOCK WHERE BLOCK LENGTH IS 700 FT. OR LARGER. 2 CONTRACTOR SHALL ESTABLISH WORK AREA WIDTHS AND MAINTAIN TRAFFIC LANES ADJACENT TO EACH WORK AS INDICATED IN TYPICAL PLANS.
- 3. THE CONTRACTOR SHALL PLACE CONSTRUCTION SIGNS, TIMBER CURBS RRELS AND/OR OTHER TRAFFIC CONTROL DEVICES TO DELINEATE WORK AREAS AND VEHICULAR TRAFFIC LANES AS SHOWN IN TYPICAL PLANS AND CTIONS. INSTALL AND MAINTAIN NO STANDING SIGNS CONTINUOUSLY FOR THE LENGTH OF THE WORK AREA.
- 4. TRENCHES WITHOUT SHEETING: BACKFILL TRENCH AND PLACE TEMPORARY VEMENT OF 4" ASPHALTIC CONCRETE MIXTURE TO MEET EXISTING PAVEMENT, OR PROVIDE STEEL PLATES, AS APPROVED BY THE ENGINEER, TO IPLETELY COVER THE TRENCH. NO OPEN TRENCH SHALL BE PERMITTED AT THE END OF ANY WORK DAY. TRENCHES WITH SHEETING: SHEETED TRENCHES MAY REMAIN OPEN AT THE END OF A WORK DAY EXCEPT AT INTERSECTIONS WHERE STEEL PLATING SHALL BE REQUIRED FOR MAINTENANCE OF VEHICULAR AND PEDESTRIAN TRAFFIC FENCING SHALL BE PLACED AND MAINTAINED AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- 5. THE CONTRACTOR SHALL, ON DEMAND, INTERRUPT ITS OPERATIONS AND PROVIDE STEEL PLATES OVER OPEN TRENCHES TO PROVIDE ACCESS TO PROPERTIES AS DIRECTED BY THE ENGINEER AT NO SEPARATE PAYMENT 6. UPON COMPLETION OF WORK AT EACH LOCATION, INCLUDING TEMPORARY
- RESTORATION OF PAVEMENT TO THE SATISFACTION OF THE ENGINEER. REMOVE LIGHTED BARRICADES, TIMBER CURBS, TEMPORARY FENCING, ANI CONSTRUCTION SIGNS AND RESTORE, REOPEN AND RETURN THE FULL WIDTH OF THE ROADWAY TO PUBLIC SERVICE. ". "WORK AREAS" SHALL BE CONSIDERED AS BEING FLOATING SEGMENTS AND THE ADVANCEMENT OF THE "WORK AREAS" SHALL BE PROGRESSED ONLY A STANCE EQUAL TO THAT PORTION OF TRENCH BACKFILLED AND RESTORED

STAGE II. INSTALLATION OF WATER MAINS LESS THAN 20 INCHES IN DIAMETER

- AND SECTIONS.
- 2. AS THE WORK ADVANCES, THE CONTRACTOR SHALL RELOCATE AND ADJUST BARRICADES, BARRELS AND OTHER TRAFFIC CONTROL DEVICES. 3. BACKFILL ALL TRENCHES AND PLACE TEMPORARY PAVEMENT OF 4" ASPHALTIC
- CONCRETE MIXTURE TO MEET EXISTING PAVEMENT OR COVER WITH STEEL PLATES AS APPROVED BY THE ENGINEER. NO OPEN TRENCH SHALL BE PERMITTED AT THE END OF ANY WORKING DAY. UPON COMPLETION OF EACH DAY'S WORK REMOVE ALL M.P.T. DEVICES FROM THE SITE AND REOPEN THE JLL WIDTH OF ROADWAY TO TRAFFIC. THERE WILL BE NO DIRECT PAYMER
- 4. THE CONTRACTOR SHALL NOT ADVANCE THE LIMITS OF THE WORK AREA UNTIL
- DISTANCE EQUAL TO THE LENGTH OF ROADWAY RESTORED AND RETURNED TO PUBLIC SERVICE EACH DAY.
- THE CONTRACTOR SHALL MAINTAIN A FIVE (5) FEET CLEAR SIDEWALK FOR PEDESTRIAN ACCESS. 6. THE CONTRACTOR SHALL EMPLOY AND ASSIGN CROSSING GUARDS/FLAGPERSON
- LOCATIONS SPECIFIED BY THE ENGINEER TO ASSIST IN CONTROLLING THE FLOW OF TRAFFIC (NO SEPARATE PAYMENT). 7. TRENCHES WITHOUT SHEETING: BACKFILL TRENCH AND PLACE TEMPORARY PAVEMENT OF 4" ASPHALTIC CONCRETE MIXTURE TO MEET EXISTING PAVEMENT, OR PROVIDE STEEL PLATES, AS APPROVED BY THE ENGINEER, T MPLETELY COVER THE TRENCH. NO OPEN TRENCH SHALL BE PERMITTED AT THE END OF ANY WORK DAY.

TRENCHES WITH SHEETING: SHEETED TRENCHES MAY REMAIN OPEN AT THE O OF A WORK DAY EXCEPT AT INTERSECTIONS WHERE STEEL PLATING SHALL BE REQUIRED FOR MAINTENANCE OF VEHICULAR AND DESTRIAN TRAFFIC FENCING SHALL BE PLACED AND MAINTAINED AS SHOWN

STAGE III. INSTALLATION OF WATER MAINS 20 INCHES OR **GREATER IN DIAMETER / INSTALLATION OF SEWERS**

ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

- CONTROL DEVICES TO DELINEATE A WORK AREA AS SHOWN IN TYPICAL PLANS AND SECTIONS.
- BARRICADES, BARRELS AND OTHER TRAFFIC CONTROL DEVICES. 3 SHEETED TRENCHES MAY REMAIN OPEN AT THE END OF A WORK DAY EXCEPT
- OF VEHICULAR AND PEDESTRIAN TRAFFIC FENCING SHALL BE PLACED AND MAINTAINED AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. 4. THE CONTRACTOR SHALL NOT ADVANCE THE LIMITS OF THE WORK AREA UNTIL SUCH TIME AS THE TEMPORARY PAVEMENT RESTORATION IS COMPLETED AND
- APPROVED BY THE ENGINEER. THE WORK AREA CAN BE ADVANCED A MAXIMUM DISTANCE EQUAL TO THE LENGTH OF ROADWAY RESTORED AND RETURNED TO PUBLIC SERVICE EACH DAY
- AT LOCATIONS SPECIFIED BY THE ENGINEER TO ASSIST IN CONTROLLING THE FLOW OF TRAFFIC (NO SEPARATE PAYMENT).

CITY OF NEW YORK DEPARTMENT OF DESIGN + CONSTRUCTION DIVISION OF INFRASTRUCTURE **BUREAU OF DESIGN**

	TEMPOR	ARY	IRAF		DIGNS TABLE
	TEMPO	RARY	′ TRA	FFIC	SIGNS TABLE
NAME	SIGN	MUTCD CODE	COLOR CODE	SIZE	DESCRIPTION
(0)		W4-2L	А	36"X36"	LANE REDUCTION TRANSITION
		W4-2R	А	36"X36"	SIGN
(R)	N O TURNS	R3-3	В	24"X24"	NO TURNS
(S)	ROAD	W20-3	Α	36"X36"	ROAD CLOSED AHEAD
(U)		R7-4	С	18"X12"	DOUBLE ARROW
(V)		M6-1	В	21"X15"	ARROW (LEFT OR RIGHT)
(W)	ONLY ONLY	R3-5	В	30"X36"	RIGHT (LEFT) TURN ONLY
(X)	SIDE WALK CLOSED	R9-9	В	24"X12"	SIDEWALK CLOSED, USE WALKWAY
	CENTER LANE	W20 5	•	26"\\26"	LANE CLOSED AHEAD
	LEFT LANE CLOSED AHEAD AHEAD	VV20-5	A	30 730	LANE CLOSED AREAD
(Z)	A	W20-7a	A	36"X36"	CROSSING GUARD/ FLAG PERSON
	(Q) (R) (S) (T) (U) (V) (V) (V) (X) (Y)	TEMPOINAMESIGN(Q) $\widehat{(\Box)}$ (Q) $\widehat{(\Box)}$ (R) $\mathbb{N} \otimes \mathbb{R}$ (R) $\mathbb{N} \otimes \mathbb{R}$ (S) $\widehat{(\Box)} \otimes \mathbb{R}$ (T) $\widehat{(\Box)} \otimes \mathbb{R}$ (U) $\widehat{(\Box)} \otimes \mathbb{R}$ (V) $\widehat{(\Box)} \otimes \mathbb{R}$ (W) $\widehat{(\Box)} \otimes \mathbb{R}$ (X) $\widehat{[\Box]} \otimes \mathbb{R}$ (Y) $\widehat{[\Box]} \otimes \mathbb{R}$ (Z) $\widehat{[\Box]} \otimes \mathbb{R}$	TEMPORARYNAMESIGNMUTCD CODE(Q) $\widehat{()}$ $\widehat{()}$ $W4-2L$ (Q) $\widehat{()}$ $W4-2R$ $W4-2R$ (R) \mathbb{NO} $R3-3$ (S) $\widehat{()}$ $\widehat{()}$ $R3-3$ (S) $\widehat{()}$ $\widehat{()}$ $M6-4$ (U) $\widehat{()}$ $\widehat{()}$ $R7-4$ (V) $\widehat{()}$ $\widehat{()}$ $R7-4$ (V) $\widehat{()}$ $\widehat{()}$ $R3-5$ (X) $\widehat{()}$ $\widehat{()}$ $R3-5$ (X) $\widehat{()}$ $\widehat{()}$ $R9-9$ (Y) $\widehat{()}$ $\widehat{()}$ $\widehat{()}$ (Z) $\widehat{()}$ $\widehat{()}$ $W20-7a$	TEMPORARY TRANAMESIGNMUTCD CODECOLOR CODE(Q) \checkmark \checkmark \forall \forall (Q) \checkmark \checkmark \forall \forall A (Q) \checkmark \checkmark \forall \forall A (R) \blacksquare \blacksquare \forall \forall A (R) \blacksquare \blacksquare \forall B (S) \checkmark \frown A A (T) \blacksquare $M6-4$ B (U) \blacksquare \blacksquare $R7-4$ C (V) \blacksquare \blacksquare $R3-5$ B (W) \blacksquare \blacksquare \blacksquare \blacksquare (X) \blacksquare \blacksquare \blacksquare \blacksquare (Y) \blacksquare \blacksquare \blacksquare \blacksquare (Y) \blacksquare \blacksquare \blacksquare \blacksquare (Z) \blacksquare \blacksquare \forall \blacksquare	NAME SIGN CODE CODE SIZE (Q) (Q)

TEMPORARY TRAFFIC SIGNS TABLE

DE	DESCRIPTION
	BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND
	BLACK LEGEND AND BORDER ON A WHITE BACKGROUND
;	RED LEGEND AND BORDER ON A WHITE BACKGROUND
	BLACK AND WHITE LEGEND

COLOR CODE LEGEND

AND BLACK BORDER ON AN ORANGE BACKGROUND

1.	ALL SIGNS AS PER LATEST EDITION OF THE NATIONAL
	TRAFFIC CONTROL DEVICES" (MUTCD).
2.	DIMENSIONS ARE SHOWN IN INCHES AND ARE SHOWN
3.	THESE TABLES ARE FOR REFERENCE PURPOSES ONL

э.	THESE TABLES ARE FOR REFERENCE FORFOSES ONE
	SIGNAGE NOT SHOWN ON THESE TABLES REFER TO T
4.	ALL SIGNS TO BE REFLECTORIZED.
5.	LETTERS ON SIGNS TO BE 5" HIGH.
6.	SIGN LOCATION TO BE AS DIRECTED AND APPROVED B
7.	MOUNTING OF SIGNS TO BE AS DIRECTED AND APPRO

M.P.T. NOTES - APPLICABLE TO ALL STAGES

1. PLACE CONSTRUCTION SIGNS, BARRICADES, BARRELS AND/OR OTHER TRAFFIC CONTROL DEVICES TO DELINEATE A WORK AREA AS SHOWN IN TYPICAL PLANS

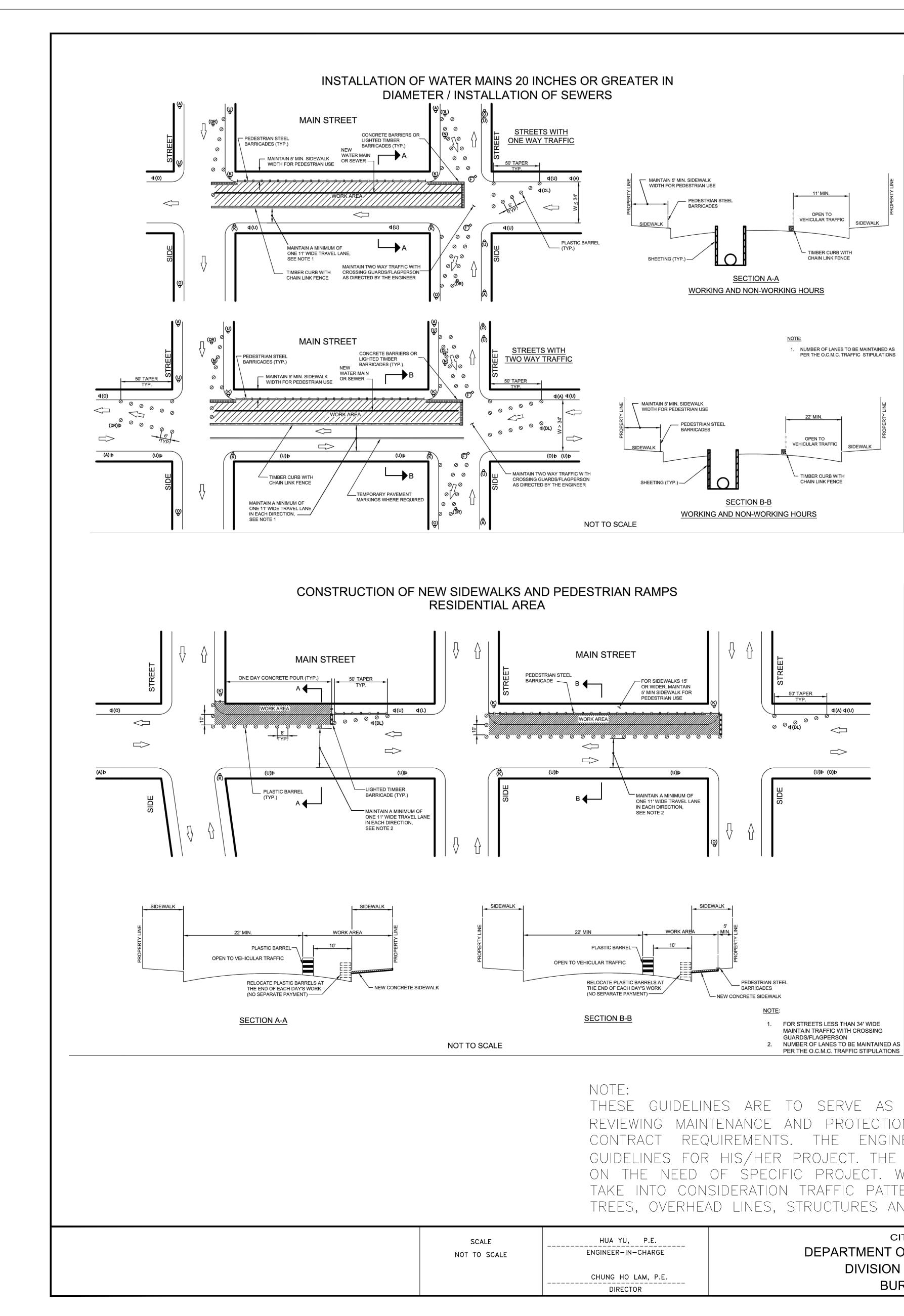
- FOR THE REMOVAL AND REINSTALLATION OF M.P.T. DEVICES AT THE SAME
- SUCH TIME AS THE TEMPORARY PAVEMENT RESTORATION IS COMPLETED AND APPROVED BY THE ENGINEER. THE WORK AREA CAN BE ADVANCED A MAXIMUM
- 5. FOR ANY SIDEWALK CONNECTIONS (HYDRANTS, HOUSE CONNECTIONS, ETC.)
- 1. PLACE CONSTRUCTION SIGNS, BARRICADES, BARRELS AND/OR OTHER TRAFFIC 2. AS THE WORK ADVANCES, THE CONTRACTOR SHALL RELOCATE AND ADJUST
- AT INTERSECTIONS WHERE STEEL PLATING SHALL BE REQUIRED FOR MAINTENANCE
- 6. THE CONTRACTOR SHALL EMPLOY AND ASSIGN CROSSING GUARDS/FLAGPERSON

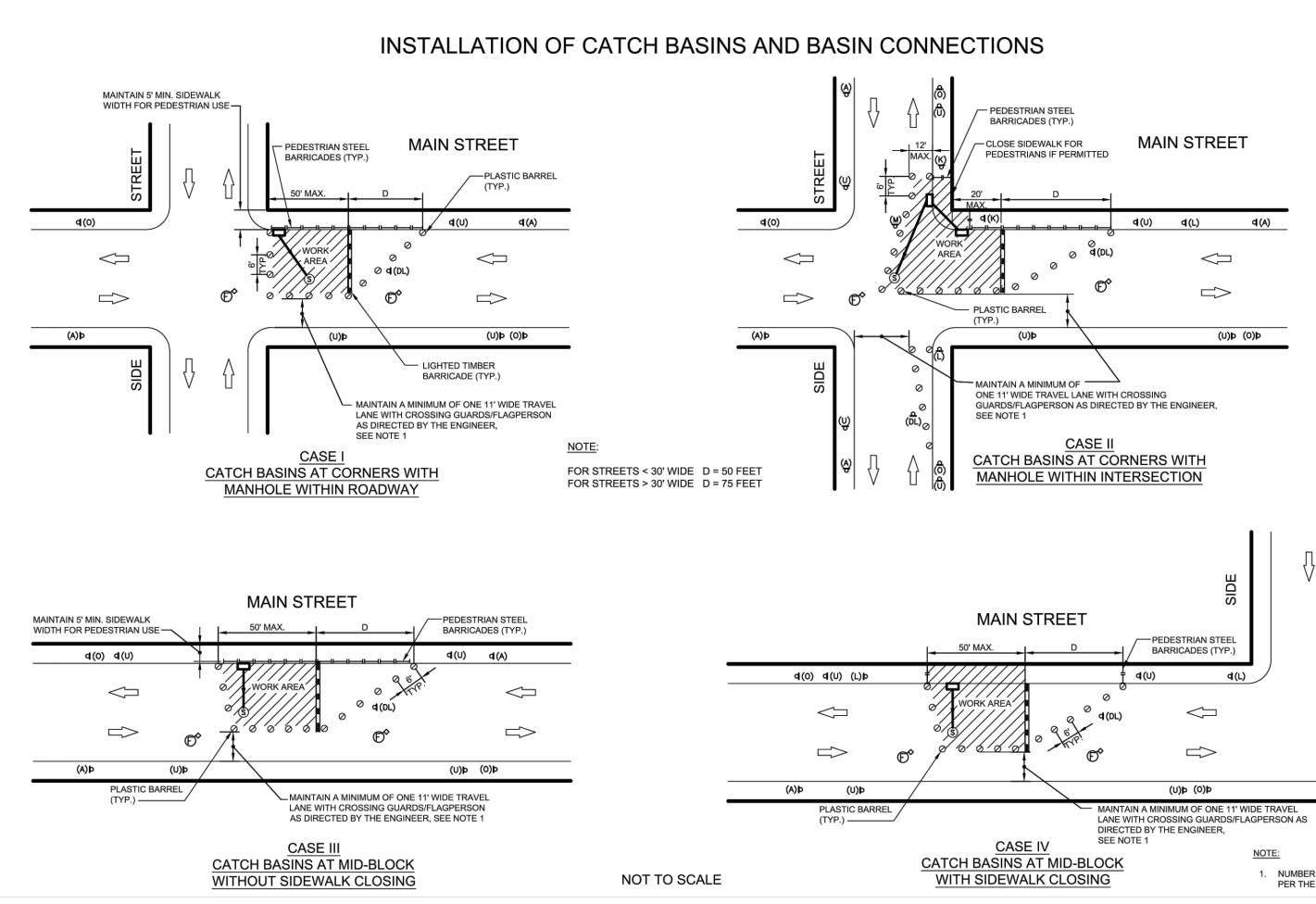
- STAGE IV. INSTALLATION OF CATCH BASINS AND BASIN CONNECTIONS THE CONTRACTOR SHALL UTILIZE THE M.P.T. CONFIGURATION FOR BASIN
- XCAVATION AND FOR THE BASIN CONNECTION PIPE AS INDICATED IN M.P.T. ETAIL FOR THIS STAGE. CATCH BASINS SHALL NOT BE CONSTRUCTED ON BOTH SIDES OF THE
- STREET SIMULTANEOUSLY MAINTAIN ONE PEDESTRIAN CROSSING AT CORNERS AND MAINTAIN PEDESTRIAN TRAFFIC ON SIDEWALK AT ALL TIMES. A MINIMUM WIDTH OF FIVE
- (5) FEET OF SIDEWALK SHALL REMAIN CLEAR AT ALL TIMES. AT THE END OF EACH DAY'S WORK. THE CONTRACTOR SHALL BACKELL AL TRENCHES AND PLACE TEMPORARY PAVEMENT OF ASPHALTIC CONCRETE MIXTURE 4. THE CONTRACTOR SHALL CLOSE THE SIDEWALK AND DIVERT PEDESTRIANS NO SEPARATE PAYMENT) TO MEET EXISTING PAVEMENT, OR PROVIDE STEEL PLATES AS APPROVED BY THE ENGINEER TO COMPLETELY COVER THE RENCH. PAYMENTS FOR STEEL PLATES ARE TO BE INCLUDED IN PRICES BID FOR ALL SCHEDULED ITEMS.
- STAGE V. CONSTRUCTION OF NEW CURBS THE CONTRACTOR WILL BE PERMITTED TO OCCUPY ONE LANE OF THE
- ROADWAY IMMEDIATELY ADJACENT TO THE CURB LINE TO REMOVE EXISTING CURB AND CONSTRUCT NEW CURB AS APPROVED AND DIRECTED BY THE THE CONTRACTOR SHALL INITIALIZE THE CONSTRUCTION OF NEW CURBS IN A WORK AREA OF 200 FEET ONLY. AFTER A SATISFACTORY START OF THE WORK. AS APPROVED AND DIRECTED BY THE ENGINEER, THE CONTRACTOR WILL BE
- PERMITTED TO EXTEND THE WORK AREA TO THE MAXIMUM LENGTH OF PLASTIC BARRELS MUST BE USED TO DELINEATE THE WORK AREA WIDTH AND PEDESTRIAN STEEL BARRICADES/PEDESTRIAN CHANNELIZERS MUST BE USED FOR THE PROTECTION OF PEDESTRIANS AS SHOWN IN TYPICAL PLANS AND AS
- DIRECTED BY THE ENGINEER. 4. PLACE CONSTRUCTION SIGNS AS SHOWN IN TYPICAL PLANS AND AS REQUIRED BY THE ENGINEER.
- 5. STRAIGHT CURB AND CORNER CURB SHALL NOT BE DISTURBED SIMULTANEOUSLY WITHIN THE SAME BLOCK.
- 6. MAINTAIN PEDESTRIAN CROSSING AT CORNERS AT ALL TIMES BY RELOCATION OF CROSSWALKS TO AREA OF STRAIGHT CURB ADJACENT TO CORNERS UNDER CONSTRUCTION. ONLY ONE CORNER AT A TIME, PER INTERSECTION MAY BE CONSTRUCTED, EXCEPT AS OTHERWISE APPROVED BY THE ENGINEER. MAINTENANCE OF PEDESTRIAN ACCESS TO ALL ABUTTING PROPERTIES.
- NTRANCES AND EXITS FROM DWELLINGS, EMERGENCY EXIT AREAS SHALL BE CONTINUOUS AT ALL TIMES. 3. UPON COMPLETION OF CURB WORK AT EACH LOCATION THE CONTRACTOR SHALL BACKFILL AROUND CURB AND PLACE 4" ASPHALTIC CONCRETE MIXTURE TO RESTORE STREET. RESTORE SIDEWALK WITH 2" ASPHALTIC CONCRETE MIXTURE AT CORNERS ONLY WHERE DIRECTED BY THE ENGINEER. MAINTAIN
- PEDESTRIAN TRAFFIC AT CROSSWALK AREAS. UPON COMPLETION OF EACH DAYS WORK THE CONTRACTOR SHALL RELOCATE THE BARRELS AND BARRICADES ADJACENT TO THE CURB. THERE SHALL BE NO DIRECT PAYMENT FOR THE DAILY RELOCATION OF BARREL AND BARRICADES
- IEREUNDER 10. EACH DAY THE WORK AREA MAY BE ADVANCED A MAXIMUM DISTANCE EQUAL TO THE LENGTH OF CURB SUBSTANTIALLY COMPLETED ON THAT DAY, WHICH SHALL BE DEFINED AS INCLUDING TEMPORARY PAVEMENT RESTORATION, AS APPROVED BY THE ENGINEER.
- 11. WORKING SIMULTANEOUSLY ON BOTH SIDES OF THE STREET WILL NOT BE PERMITTED.

- STAGE VI. INSTALLATION OF NEW STREET LIGHTING AND TRAFFIC SIGNALS AND CONSTRUCTION OF NEW SIDEWALKS
- 1. SIDEWALK CONSTRUCTION SHALL PROCEED IMMEDIATELY UPON COMPLETION OF CURB AS DIRECTED BY THE ENGINEER. 2. THE CONTRACTOR SHALL PROVIDE AND INSTALL BARRICADES WITH LIGHTS AND
- WARNING SIGNS TO DELINEATE THE WORK AREAS AS SHOWN ON PLAN. 3. THE CONTRACTOR WILL BE PERMITTED TO OCCUPY ONE LANE OF THE ROADWAY IMMEDIATELY ADJACENT TO THE CURB TO REMOVE EXISTING SIDEWALK AND CONSTRUCT NEW SIDEWALK AS APPROVED AND DIRECTED BY THE ENGINEEF
- AROUND THE WORK AREA AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEEF
- 5. SIDEWALK ADJACENT TO CORNER CURBS AND SIDEWALK ADJACENT TO STRAIGHT CURB SHALL NOT BE DISTURBED SIMULTANEOUSLY WITHIN THE
- SAME BLOCK. 6. THE CONTRACTOR MAY OCCUPY AND INSTALL PEDESTRIAN RAMPS AT A MAXIMUM OF ONE CORNER OF ANY INTERSECTION AT A TIME.
- THE CONTRACTOR SHALL FURNISH, INSTALL AND REMOVE TEMPORARY PEDESTRIAN PASSAGEWAYS, AND PROVIDE TEMPORARY PEDESTRIAN BRIDGES IN ACCORDANCE WITH TYPICAL PLAN TO FACILITATE THE FLOW OF PEDESTRIAN TRAFFIC AND ACCESS TO PRIVATE PROPERTY AS AND WHERE DIRECTED BY THE ENGINEER.
- TEMPORARY PEDESTRIAN WALKWAY AROUND THE WORK AREA MUST BE PROVIDED AT ALL TIMES. IF ROAD WIDTH DOES NOT ALLOW FOR A TEMPORARY WALKWAY, THE CORNER IS TO REMAIN CLOSED TO PEDESTRIAN
- 9. THE CONTRACTOR SHALL LIMIT THE EXTENT OF EXISTING SIDEWALK REMOVED EACH DAY TO THE SAME AREA OF CONCRETE SIDEWALK THAT WILL BE REPLACED THE FOLLOWING DAY. NO UNPROTECTED EXCAVATION SHALL
- REMAIN AT THE END OF EACH DAY'S WORK. 10. PROVIDE SMOOTH TRANSITION WITH ASPHALTIC CONCRETE MIXTURE BETWEEN SIDEWALK COMPLETED AND WORK YET TO BE STARTED.
- 11. CONTRACTOR SHALL PROVIDE LOCAL PEDESTRIAN ACCESS AT ALL TIMES FOR NORMAL BUILDING ACTIVITY.
- 12. AFTER COMPLETING THE WORK IN THE SIDEWALK AREA THE CONTRACTOR SHALL REMOVE ALL BARRICADES WITH LIGHTS, TEMPORARY SIGNS AND OTHER WARNING DEVICES AND ALL SURPLUS CONSTRUCTION MATERIAL, AND SHALL REOPEN THE SIDEWALK TO PEDESTRIAN TRAFFIC AS DIRECTED BY ENGINEER.

		NO.	DATE	DESCRIPTIONS	
				REVISIONS	
		CONSTRUCTION OF STORM WATER BEST MA			
MAINTENANCE AND PROTECTION OF TRAFFIC	BMP NC-6 BOUNDARY AVE. AND BMP NO				
	MAINTENANCE AND PROTECTION OF TRAFFIC	BOROUGH OF STATEN ISLA			
		PR	OJECI	TID: MIBBNC04A	

CODE LEGEND DESCRIPTION EGEND AND BORDER PRANGE BACKGROUND EGEND AND BORDER HITE BACKGROUND SEND AND BORDER HITE BACKGROUND ND WHITE LEGEND ACK BORDER ON AN EBACKGROUND					- STATEN ISLAND
S: SAS AS PER LATEST EDITIONS C CONTROL DEVICES" (MU SIONS ARE SHOWN IN INCH TABLES ARE FOR REFERE SE NOT SHOWN ON THESE SINS TO BE REFLECTORIZED SON SIGNS TO BE AS DIRECT ING OF SIGNS TO BE AS DI	TCD). ES AND ARE SHOWN AS V NCE PURPOSES ONLY. FO TABLES REFER TO THE M D. I. ED AND APPROVED BY TH	VIDTH x HEIGHT. DR ADDITIONAL UTCD. IE ENGINEER.			FICES BMP NC-6 AND BMP NC-15, BOROUGH OF
 THE CONTRACTOR SHALL PLANS, FOR THE CONSTRU- PEDESTRIAN TRAFFIC SHA MAINTENANCE OF PEDEST ENTRANCES AND EXITS FF SIDEWALK AREAS, SHALL I AFTER THE COMPLETION OF AROUND MANHOLE HEADS REMOVE BARRICADES, BA ROADWAY FOR TRAFFIC, A AFTER COMPLETION OF P/ SHALL REMOVE BARRICAD 	RUCTION OF ROADWAY P ESTABLISH A WORK AREA AS SH ICTION OF ROADWAY PAVEMEN EDESTRIAN CROSSWALK AT EAG LL BE DETOURED AROUND WOR RIAN ACCESS TO ALL ABUTTING COM DWELLINGS, AND PEDESTRI BE CONTINUOUS AT ALL TIMES. OF NEW PAVEMENT BASE AND C WITH TEMPORARY ASPHALTIC WITH TEMPORARY ASPHALTIC WITH TEMPORARY ASPHALTIC S DIRECTED BY THE ENGINEER.	IOWN IN TYPICAL T. CH CORNER. IK AREA. PROPERTIES, AN USAGE OF THE URING, RAMP CONCRETE MIXTURI DEVICES AND OPEI IE CONTRACTOR NSTRUCTION SIGNS	NTHE		MANAGEMENT PRACTICE
					BNC04A-CONSTRUCTION OF STORM WATER BEST
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OF STORM WAT BOUNDARY AVE	ER BEST MANA AND BMP NC-1 STATEN ISLAND	5 LACONI/			CT ID:
MIBBNC04A	DATE: 10-29-21	SHEET 45 OF	- 46	MPT1	PROJECT

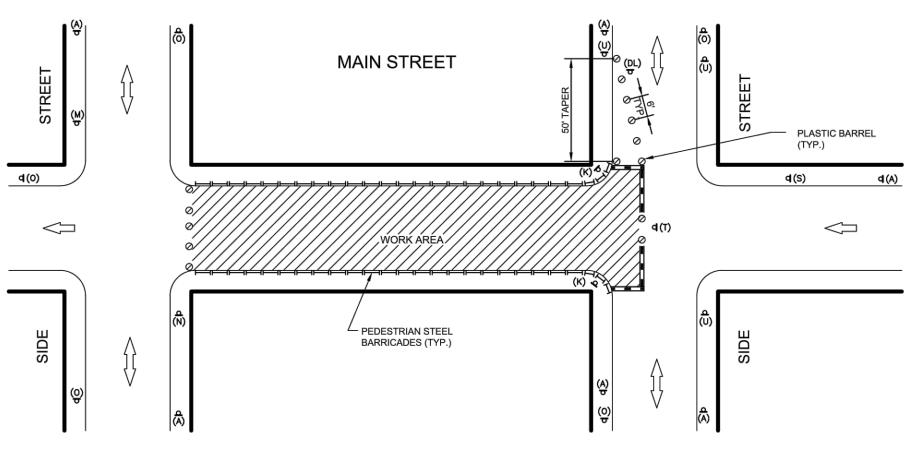




THESE GUIDELINES ARE TO SERVE AS REFERENCE ONLY FOR USE WHEN DEVELOPING AND REVIEWING MAINTENANCE AND PROTECTION OF TRAFFIC (MPT) PLANS, FOR SPECIFIC AND NOT CONTRACT REQUIREMENTS. THE ENGINEER IS RESPONSIBLE FOR SELECTING APPLICABLE GUIDELINES FOR HIS/HER PROJECT. THE ENGINEER SHALL CUSTOMIZE THESE GUIDELINES BASED ON THE NEED OF SPECIFIC PROJECT. WHILE USING THESE GUIDELINES, THE ENGINEER SHALL TAKE INTO CONSIDERATION TRAFFIC PATTERNS, CONSTRUCTION EQUIPMENT, EXISTING OBSTACLES, TREES, OVERHEAD LINES, STRUCTURES AND OTHER INTERFERENCES.

HUA YU, P.E.	CITY OF NEW YORK
ENGINEER-IN-CHARGE	DEPARTMENT OF DESIGN + CONSTRUCTION
CHUNG HO LAM, P.E.	DIVISION OF INFRASTRUCTURE
DIRECTOR	BUREAU OF DESIGN

CONSTRUCTION OF ROADWAY PAVEMEN STREETS LESS THAN 34 FEET WIDE



NOT TO SCALE

ECTIONS						
PEDESTRIAN STEEL BARRICADES (TYP.) CLOSE SIDEWALK FOR PEDESTRIANS IF PERMITT		ET d(A)				
		☐ 4(0) 4(U				
MAINTAIN A MINIMUM OF ONE 11' WIDE TRAVEL LANE GUARDS/FLAGPERSON AS D SEE NOTE 1 <u>CAS</u> <u>CATCH BASINS AT</u> <u>MANHOLE WITHIN</u>	IRECTED BY THE ENGINEER, E II CORNERS WITH					
MAIN STREET	PEDESTRIAN STI BARRICADES (T) d (U) d (DL)	EEL (P.) d(L)	₽	STREET (***		
CASE IV CH BASINS AT MID-BL ITH SIDEWALK CLOSIN		DS/FLAGPERSON / , <u>NOTE:</u> 1. NUM	AS BER OF LANI	S TO BE MAINTAIN TRAFFIC STIPULA		
	PLASTIC BARREL (TYP.) 5) q (A)					
	<u>NOTES:</u> 1. FOR FULL PREPARE	ROAD CLOSURE D	E, A DETOUF	R PLAN MUST BE		
IO. DATE		CRIPTIONS			BY	APPR'D
						-

MAINTENANCE AND PROTECTION OF TRAFFIC

DISCLAIMER: IN ALL CASES NO GUIDANCE GIVEN WITHIN THIS DOCUMENT IS INTENDED TO REPLACE, CONFLICT WITH, OR OVERRIDE ANY CURRENT OSHA, FEDERAL, STATE OR LOCAL LAWS, RULES AND REGULATIONS. IN THE EVENT OF A CONFLICT BETWEEN THIS DOCUMENT AND ANY SUCH LAW, RULE, OR REGULATION, THE LAW, RULE OR REGULATION MUST BE FOLLOWED.

THIS DOCUMENT IS ONLY A GENERAL GUIDELINE AND SHOULD NOT BE USED AS THE PROCEDURE TO ALLOW CONSTRUCTION OPERATIONS TO PROCEED AROUND ENERGIZED OVERHEAD ELECTRIC DISTRIBUTION FACILITIES. THE INFORMATION PROVIDED SHALL BE USED BY THE CONTRACTOR TO DETERMINE THE APPROPRIATE METHODS FOR CONSTRUCTION ON EACH PROJECT.

PURPOSE

TO PROVIDE ADDITIONAL GUIDANCE TO FACILITATE THE COORDINATION AND PERFORMANCE OF NEW YORK CITY DEPARTMENT OF DESIGN AND CONSTRUCTION PROJECTS THAT ARE PERFORMED IN AREAS SERVICED BY CON EDISON OVERHEAD ELECTRICAL DISTRIBUTION SYSTEMS.

INTRODUCTION

THIS GENERAL GUIDELINE DOCUMENT CONTAINS PRACTICES FOR WORKING NEAR ENERGIZED CON EDISON OVERHEAD ELECTRICAL SYSTEM CONDUCTORS OR EQUIPMENT. IT APPLIES TO CONSTRUCTION OPERATIONS THAT COULD CAUSE EMPLOYEES OR EQUIPMENT TO CONTACT OR ENTER INTO DANGEROUS PROXIMITY TO ENERGIZED OVERHEAD ELECTRICAL SYSTEMS.

WHEN WORKING NEAR ENERGIZED OVERHEAD ELECTRICAL LINES OR EQUIPMENT, APPROPRIATE MEASURES SHALL BE EMPLOYED TO MAINTAIN REQUIRED CLEARANCES AND AVOID CONTACT WITH SUCH LINES OR EQUIPMENT.

TWO IMPORTANT ASSUMPTIONS MUST ALWAYS BE MADE: 1) OVERHEAD ELECTRIC LINES ARE "LIVE" (ENERGIZED); AND 2) CARRY 50 VOLTS OR MORE. ELECTRICAL LINES CAN ONLY BE CONSIDERED "DEAD" (DE-ENERGIZED) WHEN VERIFIED AS SUCH, BY CON EDISON.

WHEN THERE IS ANY QUESTION ABOUT THE NATURE, TYPE, VOLTAGE AND LOCATION OF ENERGIZED ELECTRICAL LINES OR EQUIPMENT WITHIN THE GEOGRAPHICAL LIMITS OF THE NYCDDC PROJECT WORK, CON EDISON MUST BE NOTIFIED IN ADVANCE OF THE WORK. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR BE PERMITTED TO CONNECT OR TIE OFF OTHER UTILITY CABLES AND WIRES, SUCH AS TELEPHONE, CABLE TV AND FIRE ALARM, TO THE CON EDISON OVERHEAD FACILITIES.

CON EDISON OVERHEAD ELECTRICAL DISTRIBUTION SYSTEMS

THE CON EDISON OVERHEAD ELECTRIC DISTRIBUTION SYSTEM CONSISTS OF TWO VOLTAGE CLASSIFICATIONS. THEY ARE THE PRIMARY SYSTEM AND THE SECONDARY SYSTEM. THE PRIMARY SYSTEM HAS VOLTAGES IN EXCESS OF 2000 VOLTS AC BETWEEN ANY SINGLE CONDUCTOR AND GROUND, AND A VOLTAGE DIFFERENTIAL GREATER THAN 4000 VOLTS BETWEEN ANY PAIR OF CONDUCTORS. SECONDARY SYSTEMS HAVE VOLTAGES RANGING FROM 120 VOLTS TO 477 VOLTS AND NORMALLY SERVICE STREETLIGHTS, TRAFFIC SIGNALS, AND PROVIDE POWER TO CUSTOMER PREMISES.

PRIMARY SYSTEMS

PRIMARY SYSTEM CONDUCTORS ARE FOUND AT THE UPPER PART OF THE POLES AND ARE CONNECTED TO STEP DOWN TRANSFORMERS THAT PROVIDE LOWER SECONDARY SYSTEM VOLTAGE TO CUSTOMERS. THE PRIMARY CONDUCTORS MAY BE COVERED OR UNCOVERED (BARE) WIRE. THE COVERING THAT MAY BE PRESENT IS DESIGNED TO PROVIDE SYSTEM PROTECTION AGAINST INCIDENTAL CONTACT WITH NEARBY TREES AND IS NOT INTENDED TO OFFER ANY PERSONAL PROTECTION OR INSULATING VALUE AGAINST ELECTRICAL HAZARD. CON EDISON CONSIDERS THIS CABLE "UN-INSULATED" FOR THE PURPOSE OF PROVIDING SAFE WORKING DISTANCES AND PROTECTION OF PERSONNEL OR EQUIPMENT. THEREFORE, NO PERSONNEL OR EQUIPMENT SHALL COME WITHIN 10 FEET OF THE CLOSEST CONDUCTOR.

THE OTHER TYPE OF PRIMARY OVERHEAD ELECTRICAL DISTRIBUTION SYSTEM THAT CON EDISON OPERATES UTILIZES AN "AERIAL CABLE". THIS CABLE IS UNDERGROUND TYPE CABLE THAT IS INSTALLED ON MESSENGER WIRE, IS ELECTRICALLY INSULATED, AND HAS AN EXTERIOR METALLIC SHEATH THAT IS GROUNDED. THE CONTRACTOR SHOULD MAINTAIN A CLEARANCE OF 3 FEET FROM THESE FACILITIES.

PROJECT ID: MIBBNC04A

GUIDELINES FOR WORKING NEAR ENERGIZED OVERHEAD ELECTRICAL DISTRIBUTION SYSTEMS

SECONDARY SYSTEMS

SECONDARY SYSTEMS THROUGHOUT THE CON EDISON SERVICE CONDUCTOR. THESE CONDUCTORS ARE NORMALLY FOUND CABLES AND CABLE TV WIRES. THEY PROVIDE POWER TO CU SEVERAL CONFIGURATIONS THAT MAY CONSIST OF SINGLE OR M

THE SECONDARY SYSTEMS AND THE SERVICE CONNECTIONS (" THAT ARE COVERED OR UNCOVERED. PRECAUTIONS SIMILAR CONDUCTORS SHALL BE UTILIZED. ALL EFFORTS SHALL BE MAD FEET AROUND THESE WIRES.

PRIMARY AND SECONDARY RISERS

THE CONTRACTOR MAY ENCOUNTER LOCATIONS WHERE THERE FROM OVERHEAD TO UNDERGROUND. THESE CONDUCTORS A CONDUIT THAT ACTS AS A BARRIER. IN THESE CASES TH EQUIPMENT ARE TO AVOID CONTACT WITH THESE FACILITIES.

CLOSER APPROACH DISTANCES

PRIMARY SYSTEMS - EACH PROJECT WILL INCLUDE A CONE SPECIFICALLY STATE THE MAXIMUM APPROACH DISTANCES AND CON EDISON TO PERMIT THESE CLOSER APPROACH DISTANCES ADEQUATE TEMPORARY INSULATION, DE-ENERGIZING, OR F COMBINATION OF ANY OF THE THREE ALTERNATIVES. IF INSULATION IS THE SELECTED ALTERNATIVE, THE TEMPORAR VALUE THAT WILL BE COMMENSURATE WITH THE VOLTAGES IN REQUIRED TO MAINTAIN A MAXIMUM WORKING DISTANCE WHEN LESS THAN 3 FEET AS A MINIMUM. THE 3 FEET MINIMUM IS IN SAFETY" FOR OPERATOR ERROR. SHOULD THE CONDITION REPO DISTANCES THEN THE CONTRACTOR WILL BE REQUIRED TO 10-FOOT CLEARANCE.

SECONDARY SYSTEMS AND SERVICES - EACH PROJECTION REPORT/DRAWING THAT WILL SPECIFICALLY STATE THE MAXIM METHODS TO BE EMPLOYED BY CON EDISON TO PERMIT THESE IS ASCERTAINED THAT THE WIRES ARE COVERED WITH INTACT IN FEET WILL BE ESTABLISHED. THIS ZONE WILL BE ESTABLISH PRECLUDE CONTACT BETWEEN THE CONTRACTORS EQUIPMIC CONDUCTOR. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTORS EQUIPMIC COME IN CONTACT WITH THE WIRES. SHOULD THE CONDIT APPROACH DISTANCES THEN THE CONTRACTOR WILL BAFOREMENTIONED 10-FOOT CLEARANCE.

THE OVERHEAD CONDITION REPORT (OCR) REFLECTED IN THE OF FIELD WALKS AND/OR COMPANY PLATES AND DRAWINGS AT THE THE OCR. THESE CONDITIONS ARE SUBJECT TO CHANGE. ARRANGEMENTS FOR A FIELD WALK SHALL BE MADE BETWEEN THE DDC ENGINEER-IN-CHARGE (EIC) TO ASSESS CURRENT FIEL BE SCHEDULED BY THE EIC AND MUST TAKE PLACE BEFORE ANY

ALL PARTIES INVOLVED MUST FOLLOW DDC'S PROTOCOL FOR I CON EDISON ENERGIZED OVERHEAD ELECTRICAL DISTRIBUTION

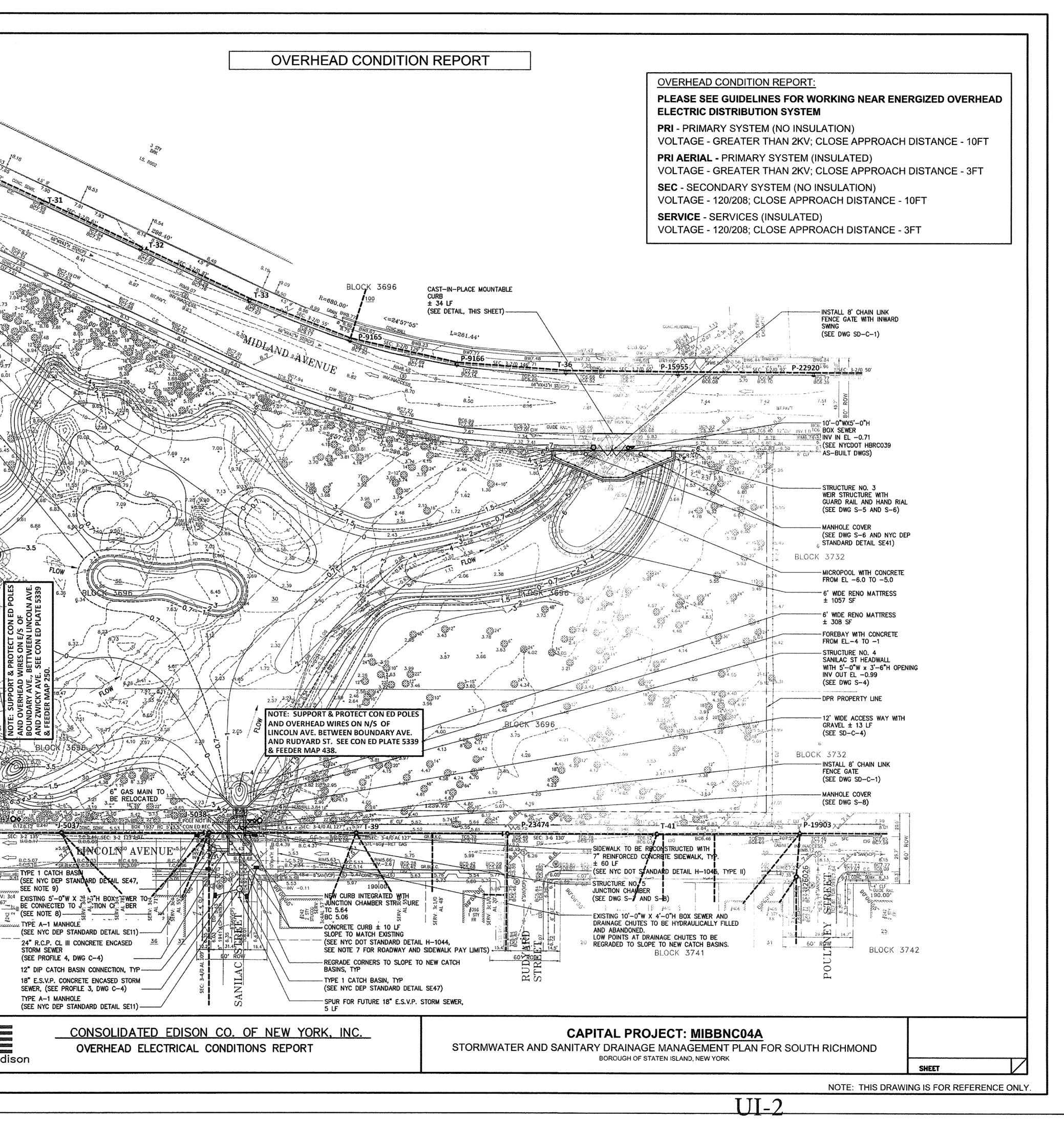


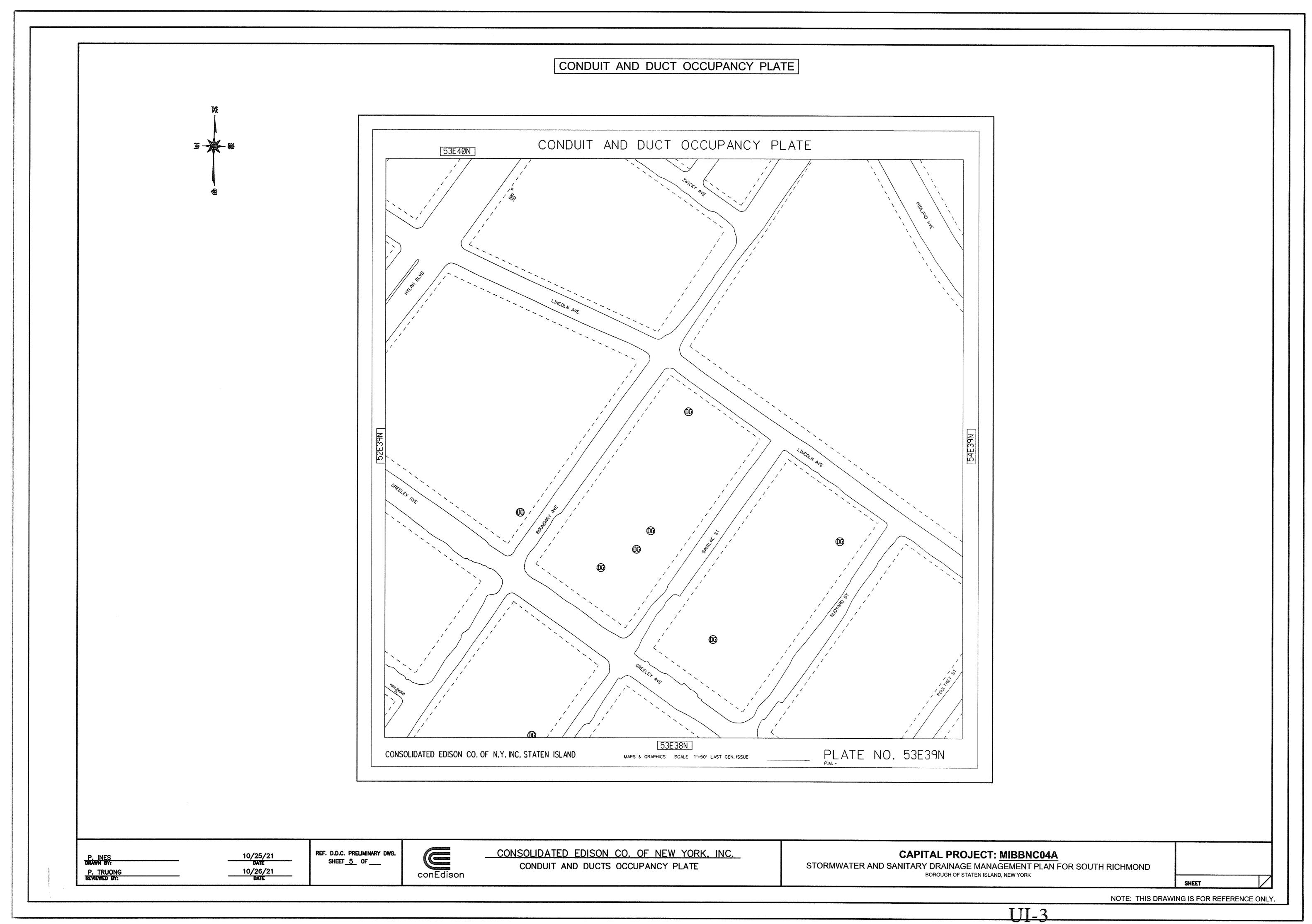
CONSOLIDATED EDISON CO. OF NEW YORK, INC. OVERHEAD ELECTRICAL CONDITIONS REPORT

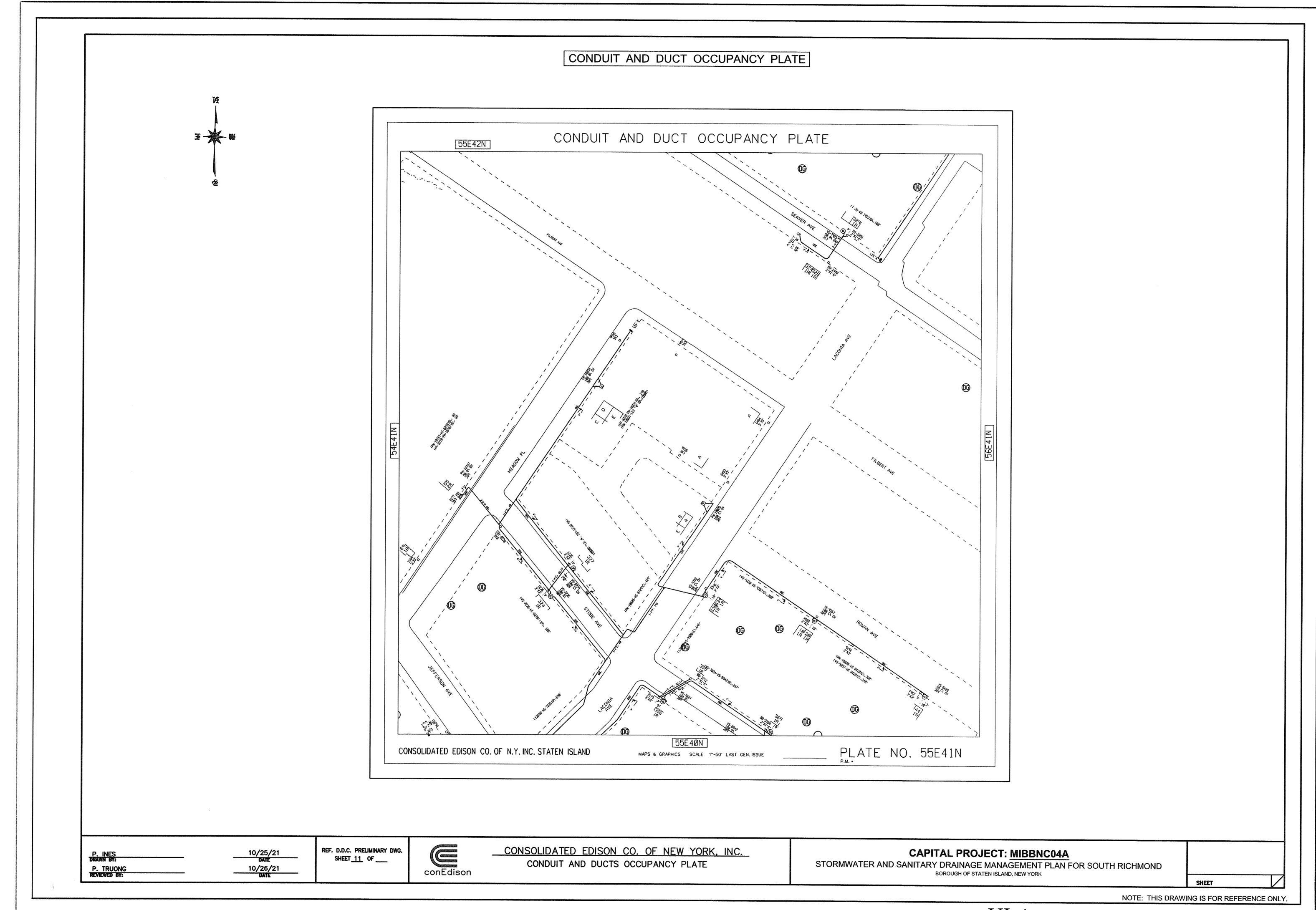
GUIDELINES FOR WORKI

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AREA ARE TYPICALLY 120 VOLTS PER			
ON POLES ABOVE THE TELEPHONE STOMER SERVICE POINTS THROUGH			
JLTIPLE CONDUCTORS.			
ERVICE DROPS") MAY HAVE CABLES			
O THOSE EMPLOYED FOR PRIMARY E TO MAINTAIN A CLEARANCE OF 10			
E TO MAINTAIN A GELAVANCE OF TO			
S A TRANSITION OF CABLE SYSTEMS			
RE INSULATED AND ARE HOUSED IN			
CONTRACTORS' PERSONNEL AND			
ITION REPORT/DRAWING THAT WILL			
THE METHODS TO BE EMPLOYED BY			
METHODS MAY INCLUDE PROVIDING ELOCATION OF THE WIRES OR A			
HE INSTALLATION OF TEMPORARY			
INSULATION WILL HAVE A DESIGN			
VOLVED. THE CONTRACTOR WILL BE			
ENDED TO PROVIDE A "MARGIN OF			
RT NOT PERMIT CLOSER APPROACH			
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CT WILL INCLUDE A CONDITION			
JM APPROACH DISTANCES AND THE			Í
CLOSER APPROACH DISTANCES. IF IT SULATION, AN EXCLUSION ZONE OF 3			
ED AS A "MARGIN OF SAFETY" TO			
NT AND THE SECONDARY/SERVICE			
ACTOR PERSONNEL OR EQUIPMENT ON REPORT NOT PERMIT CLOSER			
E REQUIRED TO MAINTAIN THE			
ONTRACT BID BOOKS ARE BASED ON TIME OF THE DESIGN INDICATED IN			
FTER THE PROJECT IS AWARDED,			
HE CONTRACTOR, CON EDISON, AND			
CONDITIONS. THE FIELD WALK WILL			
CONTRACT WORK STARTS.			
IPLEMENTATION OF WORKING NEAR			
SYSTEMS.			
NG NEAR ENERGIZED			
STRIBUTION SYSTEMS			
	SHEET		
			1
			l

		BLOCK 3697	15.8°
	EXISTING CHAIN 8' CHAIN LINK FENCE GATE TO REMAIN		
	MODIFIED ACCESS WAY WITH GRAVEL ± 1,150 SF (SEE DWG SD-C-4)	359.53' INV2	
	MANHOLE COVER (SEE DWG S-3 AND NYC DEP STANDARD DETAIL SE41)	E SERV: 3c 1/0 AL 39'1	
	FROM EL -3.5 TO 0.5 STRUCTURE NO. 2 LINCOLN AVE HEADWALL	29 29 532 532 0-BO	100 y
	(SEE DWG SD-C-6) O O C C O C C C C C C C C C C C C C	25 215 215 215 215 215 215 215 215 215 2	6.70 00%. SN 6.70 00%. SN 00% 00% 00% 00%
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	INSTALL 8' CHAIN LINK FENCE GATE (SEE DWG SD-C-1)		141- 141-
	GUY WRE ANCHOR TO BE	6 OF	
	MANHOLE COVER (SEE DWG S-3 AND NYC DEP STANDARD DETAIL SE41)		
	STRUCTURE NO. 1	Sciloalitie Contraction	10 10 10 10 10 10 10 10 10 10 10 10 10 1
	DEEP POOL PERMANENT POOL WSE -0.7 FOREBAY WITH CONCRETE FROM EL3.5 TO -0.5	11 12 12 12 12 12 12 12 12 12 12 12 12 1	7.15 7.54 9 4 40
	8.17	329.33' 6 CUF	······································
&	EXTENDED DETENTION	NV 24 SI(VCP) RIM7.65 RIM7.65 7.86 INV6.3 SI INV.0.3±	1-50 24 8 8 8 8 8 8
THE REAL PROPERTY AND A DECEMBER OF A DECEMB	F438 SEC: 3-2/0 100 ⁻ 7.74 PRI. F438 4kV 3-300728- PRI. F438 4kV 3-300728-	325.68' 4' CLF 7.42 5EC: 3.270 102'1' BC/21 CCG - 7.12 CCG - 7	thurbrat
152	<u>31</u>	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3-4/0 AL 853
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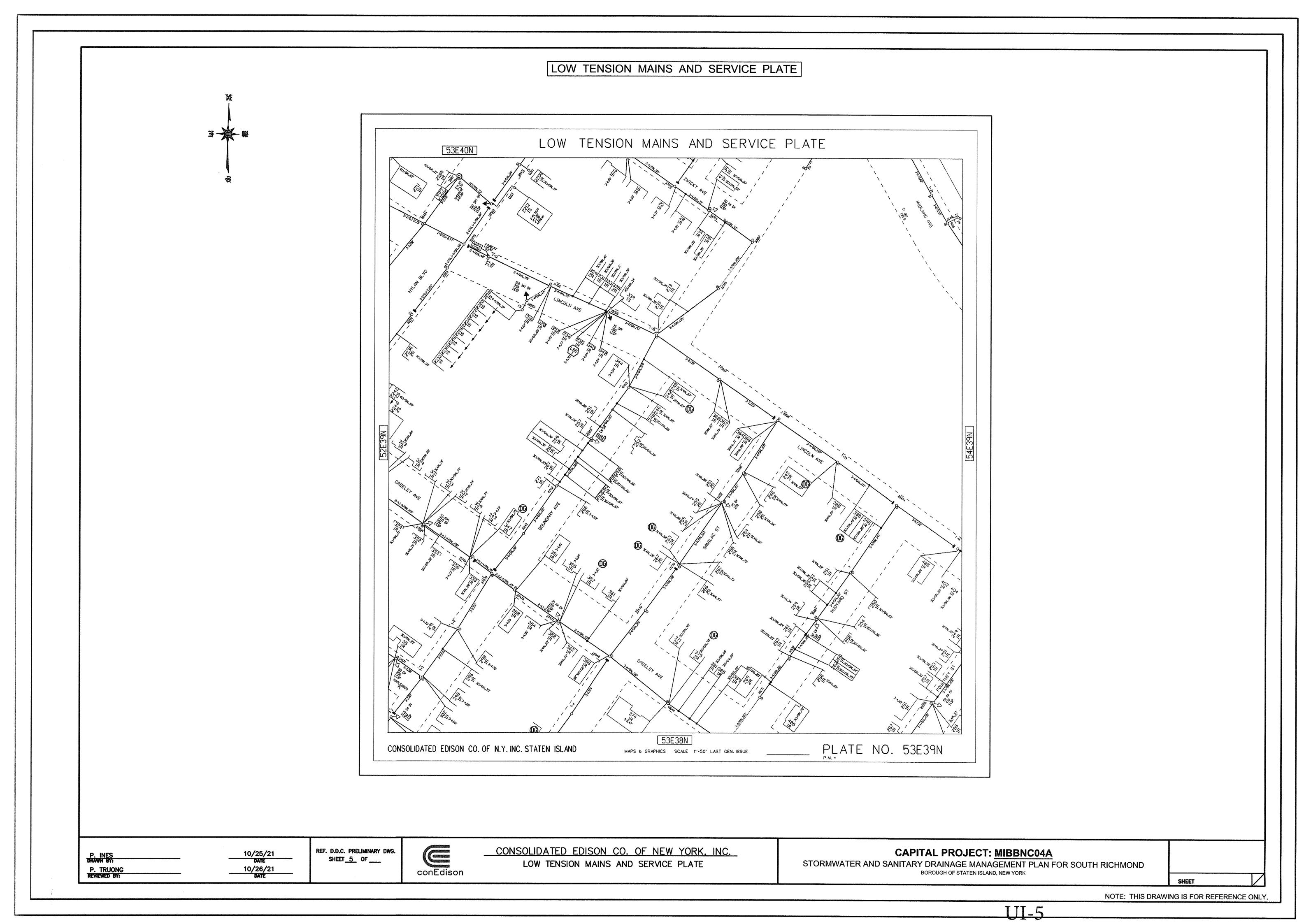




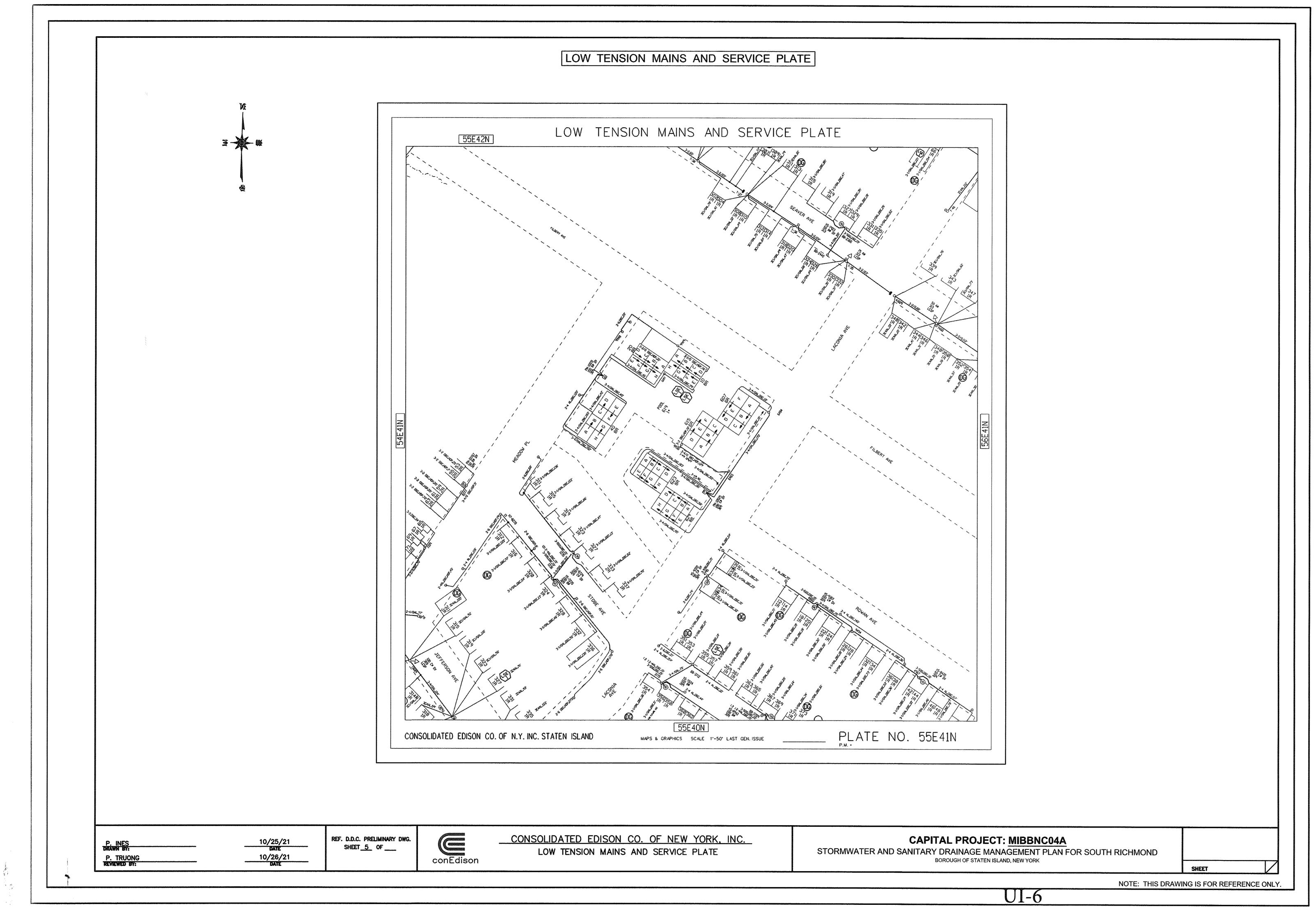
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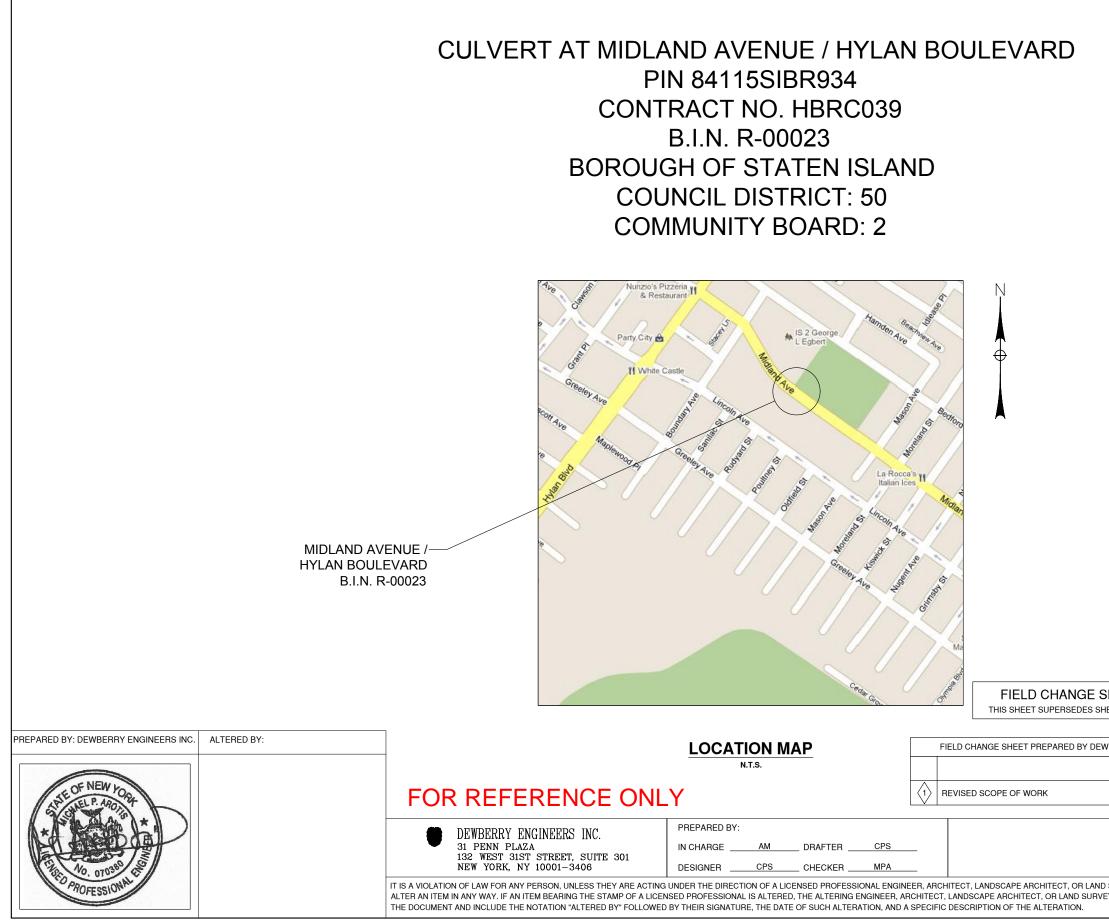
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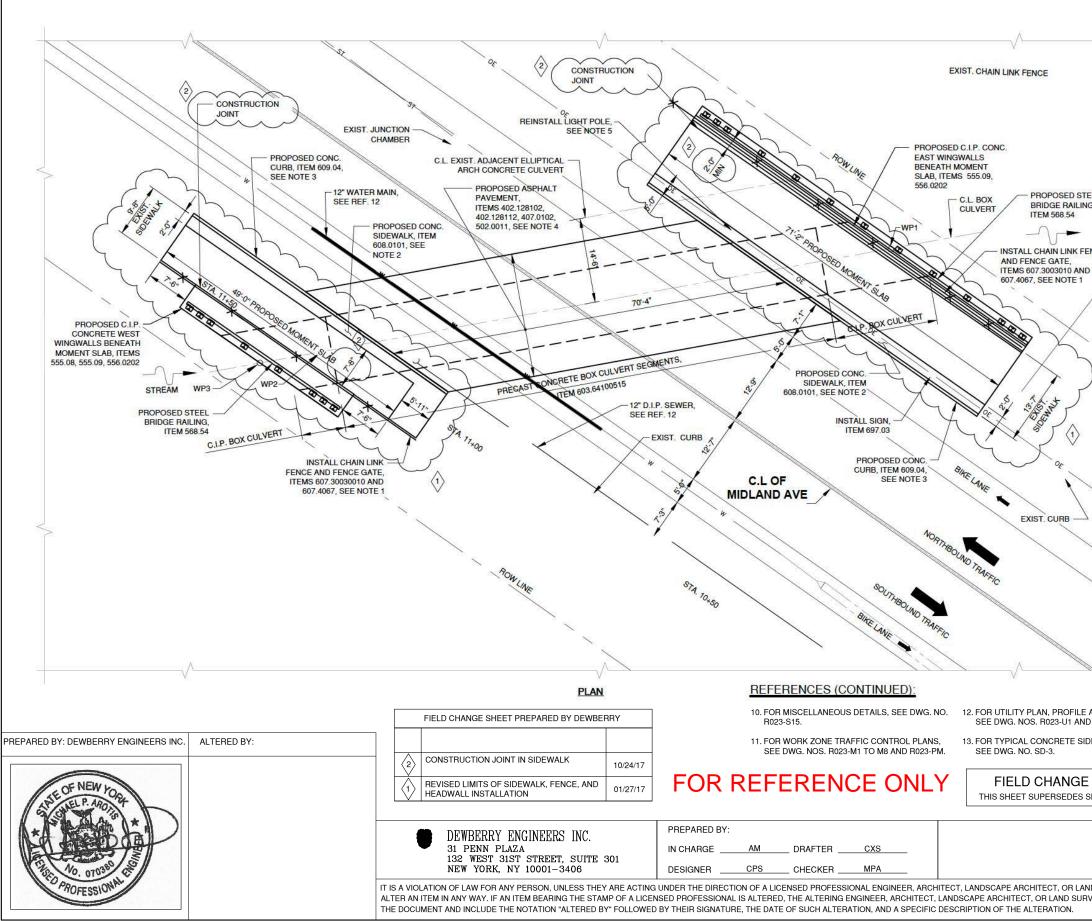
	CONSOLIDATED EDISON CO. OF NEW YORK, INC.	CAPIT
dison	LOW TENSION MAINS AND SERVICE PLATE	STORMWATER AND SANITARY D



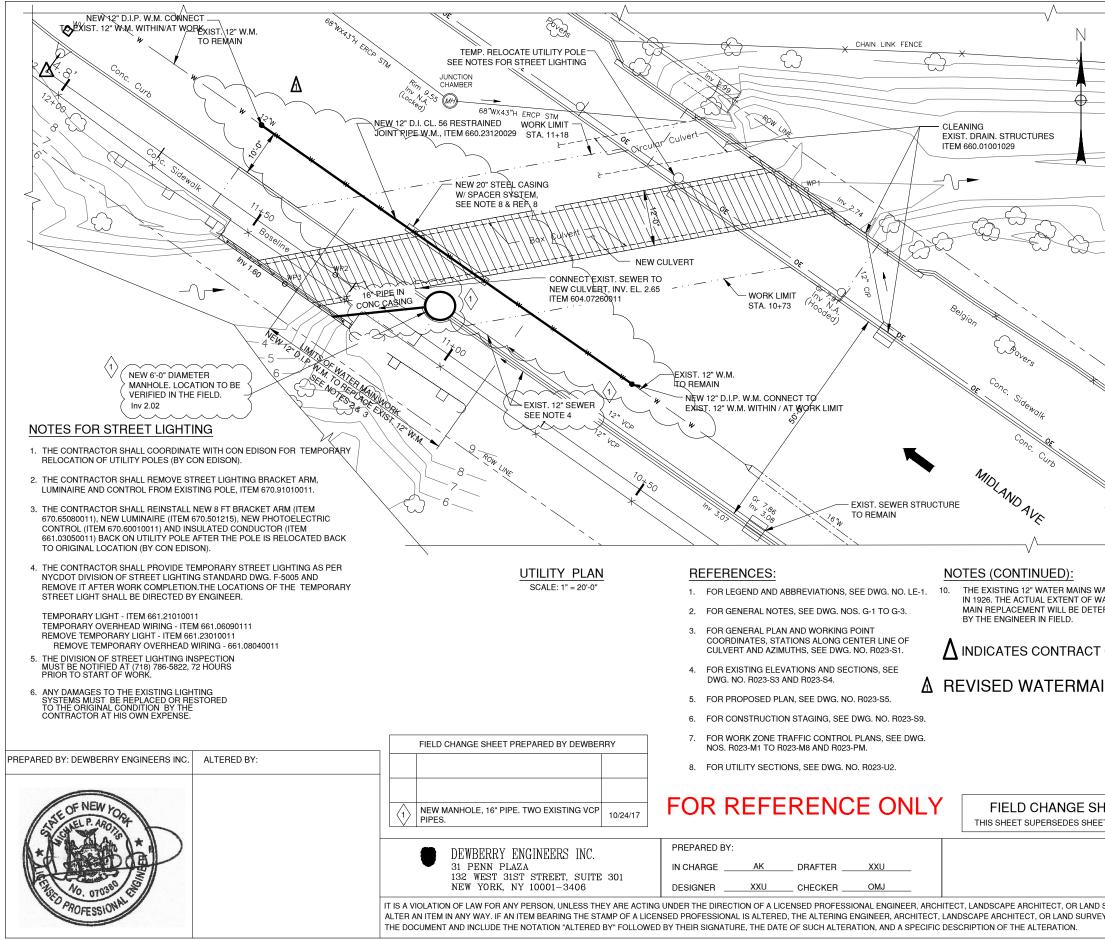
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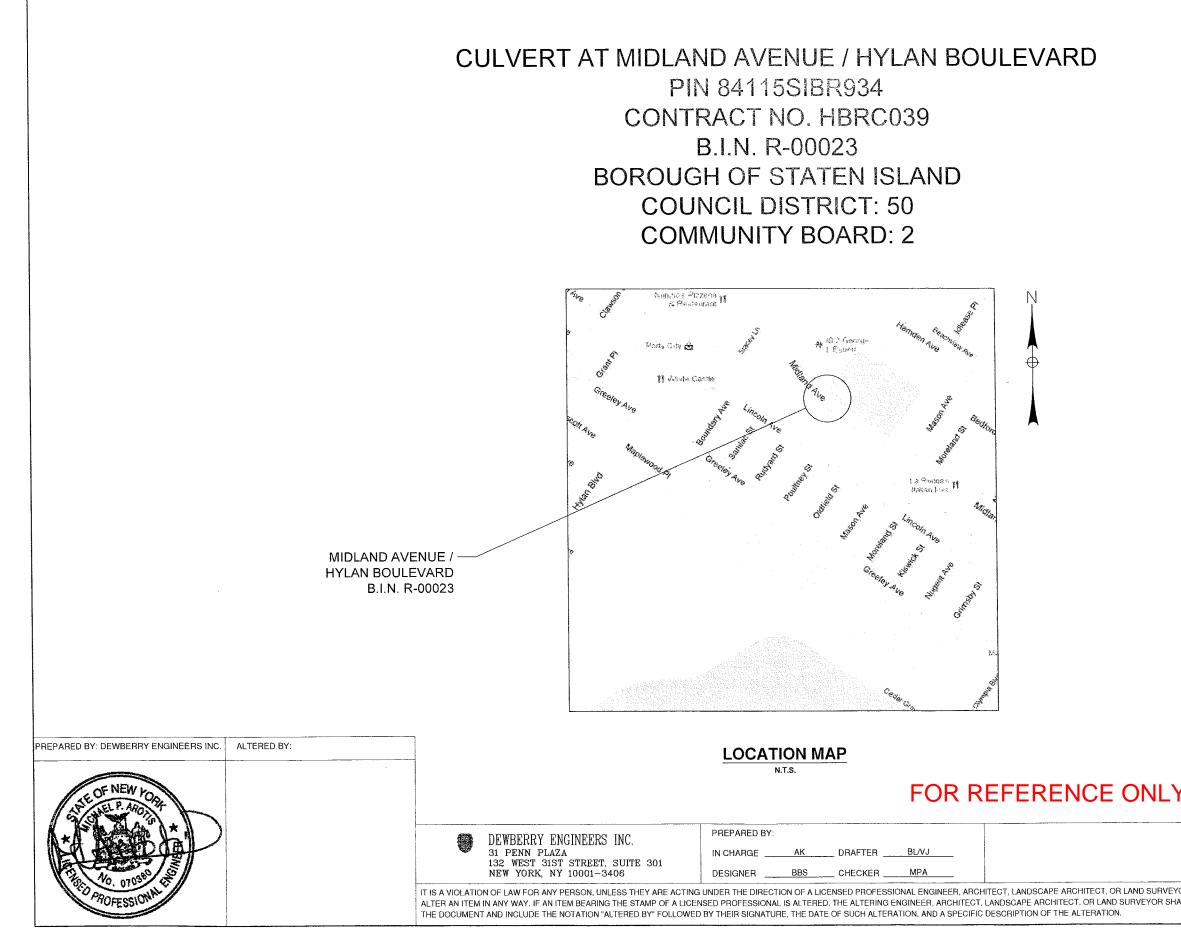
		CONTIN NUMBE		SHEET NO.	TOTAL SHEETS			
		88 OF		85F1	209			
	DEEEDEN							
	1. FOR INDEX	<u>DES:</u> OF DRAWINGS, S						
		D AND ABBREVIA			E 1			
		AL NOTES, SEE [,		E-1.			
				110 G-3.				
		NOTES, SEE DW						
	5. FOR WORK G-8.	ZONE TRAFFIC C	UNTRUL NU	TES, SEE DI	WG. NO.			
	6. FOR GENER	AL PLAN, SEE DV	VG. NO. R023	3-S1.				
	7. FOR EXISTING PLAN, SEE DWG. NO. R023-S2.							
	8. FOR PROPOSED PLAN, SEE DWG. NO. R023-S5.							
	SCOPE OF	WORK:						
	1. CLEAR DEB	RIS AND VEGETA	TION FROM	CHANNEL.				
	2. IMPLEMENT STAGES.	WORK ZONE TR	AFFIC CONT	ROL IN THRI	EE (3)			
	3. INSTALL TEI	MPORARY WATER	R DIVERSION	I STRUCTUF	RE.			
	4. INSTALL TEI	MPORARY SHORI	NG STRUCT	URE.				
	5. INSTALL TR	EE PROTECTION	BARRIER.					
	 REMOVE EXISTING PIPE RAILING, CHAIN LINK FENCE, SIDEWALK, CURB, AND ASPHALT WEARING SURFACE AS SHOWN. 							
	7. EXCAVATE AND REMOVE EXISTING CULVERT STRUCTURE.							
	8. CONSTRUCT NEW CULVERT STRUCTURE.							
		T NEW MOMENT : N LINK FENCE, AI						
	10. REMOVE AN	ID REPLACE WAT	ER MAIN AN	D SEWER.	$\overbrace{1}^{1}$			
	11. INSTALL AN	D REMOVE TEMF	ORARY STR	UCTURE FO	DR V			
		ATE CONS	TRUCTI	ON DUR	ATION:			
	^{9 MONTHS} "NO CHANG	E FROM CC	NTRACT		NGS"			
	RECO	RD AS-B		RAWI	NG			
	1. CONTRACTOR: DIF							
		Y PLACE, STATEN ISL	ND, NY 10303					
	CERTIFIED CORRECT		iem	DATE: 03-2	2-19			
	2. COMMISSIONER'S F			B				
	OR CONSTRUCTION	SUPERVISION CONSU TH AVE #501, FLUSHIN	LTANT: B&H EN					
	CERTIFIED CORREC	1	<u>Cher</u>	DATE: 03-	21-19			
HEET		CITY OF N		к				
EET NO. 85		TMENT OF	TRANSP	ORTATI	NC			
(2522) (NYS P.I.N. NO.	N/A	F	FED. AID F	ROJ. NO.			
/BERRY	NYC P.I.N. NO.	84115SIBI	R934	N/A	λ			
	CONTRACT NC	HBRC039		CD NO. J	73			
01/27/17	REHABI	LITATION / I OF EIGHT			ON			
	BOROUGH OF S	TATEN ISLAND		B.I.N. F	-00023			
		TITLE	SHEET					
SURVEYOR, TO		SCALE	DATE	¢L	EET NO			
YOR SHALL STAMP	DWG NO.	N.T.S.	DATE SEPT. 20		EET NO. 85F1			



			NUOUS ERING	SHEET NO.	TOTAL SHEETS			
N	$\langle 1 \rangle$		F 264	91F	209			
	\sim							
\oplus	NOTES: 1. THE LIMITS OF CHAIN LINK FENCE AND POST INSTALLATION MAY VARY BASED ON THE FIELD CONDITIONS OR A.O.B.E. INSTALL THE CHAIN LINK FENCE, POST AND GATE IN ACCORDANCE WITH DETAILS ON NYSDOT STANDARD SHEET NOS. 607-04 / 05 / 06.							
	SIDEWALK SIDEWALK. BE PAID UN	2. THE GROOVING AND FINISHING OF THE MOMENT SLAB AND SIDEWALK SURFACES SHALL BE SIMILAR TO THE EXISTING SIDEWALK. ALL ITEMS RELATED TO SIDEWALK WORK SHALL BE PAID UNDER SIDEWALK ITEM 608.0101. FOR SIDEWALK REINFORCEMENT DETAIL, SEE REF. 13.						
EEL G,	ACCORDAN CONSTRUC	3. THE CONCRETE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYCDOT STANDARD DETAILS OF CONSTRUCTION DRAWING NO. H-1044 - CONCRETE CURB. THE CONCRETE CURB SHALL BE PAID UNDER ITEM 609.04.						
		RACTOR SHALL M FOR THE PROPC						
s /	POLES, PR	L WORK OF TEMP OVIDING TEMPOF SEE REF. 12.						
	REFEREN 1. FOR LEGE	NCES: ND AND ABBREV	ATIONS, SE	E DWG. NO.	LE-1.			
8	2. FOR GENE	RAL NOTES, SEE	DWG. NOS.	G-1 TO G-3.				
)	 FOR GENERAL PLAN AND WORKING POINT COORDINATES, STATIONS ALONG CENTER LINE OF CULVERT AND AZIMUTHS, SEE DWG. NO. R023-S1. 							
	4. FOR EXISTING PLAN, SEE DWG. NO. R023-S2.							
	5. FOR PROPOSED ELEVATIONS, SEE DWG. NO. R023-S6.							
	6. FOR PROF	OSED SECTION,	SEE DWG. N	IO. R023-S7.				
	7. FOR EXCA DWG. NO.	VATION AND BAC R023-S8.	KFILL PLAN	AND SECTION	ON, SEE			
		POSED CULVERT AND R023-S11.	LAYOUT, SE	e dwg. Nos	6.			
		POSED REINFORC TO R023-S14, R02 E FROM CC	3-S16 AND F	R023-S17.				
\searrow	RECO	RD AS-B	UILT D	RAWI	NG			
	1. CONTRACTOR: DIF	AZIO INDUSTRIES						
		EY PLACE, STATEN ISL	AND, NY 10303					
	CERTIFIED CORREC		IEM	DATE: 03-22-1	-			
	OR CONSTRUCTION	0	ILTANT: B&H EN IG, NY 11357 Au	ER IGINEERING PC DATE: <u>03-21-</u>	19			
AND SECTIONS, D R023-U2.	DEPAR	CITY OF N TMENT OF DIVISION O	TRANSF	ORTATI	ON			
DEWALK DETAILS,	NYS P.I.N. NO.	N/A		FED. AID F	ROJ. NO.			
	NYC P.I.N. NO.	84115SIBI	7934	N//	4			
SHEET	CONTRACT NO). HBRC039		CD NO.	73			
SHEET NO. 91	REHAB	ILITATION / OF EIGHT			ON			
	BOROUGH OF S	STATEN ISLAND		B.I.N. F	1-00023			
		PL	AN					
ND SURVEYOR, TO VEYOR SHALL STAMP	DWG NO.	SCALE	DATE	: eL	IEET NO.			
VETON SHALL STAMP	R023-S5F	1/16" = 1'-0"	SEPT. 2		91F			



					INUOUS	SHEET	TOTAL
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				130 C	0F 264	105F1	209
		OTES:					
	1.	IN ACCORI ENVIRONIN SEWER OF	DANCE MENTA PERAT	E WITH NYC L PROTECT IONS (BWS)	DEPARTM ION, BURE O) STANDA	SHALL BE PER ENT OF AU OF WATEI RDS, SPECIF EST VERSION	R AND ICATIONS
	2.	FIELD VER PRIOR TO EXCAVATION	NEW NON WI	HE DEPTH T WATER MAII	O THE EXIS N INSTALLA DOLS ONLY	TE WITH NYCI STING 12" WA ATION AND PE Y WITHIN A 3-I ATER MAIN.	TER MAIN
	3.		RESTF	RAINED LEN			
	4.	EXCAVATI SHALL TEM ANY DAMA BY THE CO	NG AF MPOR/ AGE TO ONTRA	OUND THE ARILY SUPP O THE EXIST	EXISTING ORT IT DU ING SEWE HE SATISF	EXTREME CAN 12" VCP SEWE RING CONSTR R SHALL BE F ACTION OF TI	ER AND RUCTION. REPAIRED
	5.					IED DURING RY WATER DI	VERSION.
	6.			TILITIES TO D DURING C		HALL BE PRO TION.	TECTED
	7.	CONTRAC	TOR S		HE DEPTH	Main is Unkn I Shown For	
	8.	PASSING U USE 3/8" TI SPACER S CASING SF POSITION OF THE CA	UNDEF HICK S SYSTEI PACEF WITH ASING	R THE CULVI STEEL CASII M MODEL CO RS SHALL RE SPACING 6 SHALL BE S	ERT. THE C NG PIPE W CS-1320 OF ESTRAIN W FT APART & GEALED US	WATER MAIN CONTRACTOR ITH CASCADE APPROVED VATER MAIN II AS SHOWN. T SING CCES CA T OF END SE	ESHALL ECASING EQUAL. N CENTER HE ENDS SING END
	9.	BE PAID UI NO WATER CASING PI	NDER R MAIN IPE. TH E FOR	ITEM 660.1: JOINTS SH HE CONTRA WATER MAI	2200029. ALL BE ALI CTOR SHA	LOWED WITH LL ORDER A 2 D UNDERNEA	IN THE 25 FT
I		RECO	BD	AS-B	шт	DRAWI	
							na
WATER	1. CO	NTRACTOR: DIF DRESS: 38 KINS		DUSTRIES	AND, NY 10303	3	NG
WATER	1. CO ADI	DRESS: 38 KINS RTIFIED CORRE	SEY PLA	ce, staten isl Rak	_	3 DATE: <u>03-22-1</u>	
WATER ETERMINED	1. CO ADI CEI	DRESS: 38 KINS RTIFIED CORRE PRINT	SEY PLA ECT BY: NAME:	CE, STATEN ISL Kata HAKIM GHAI	NEM	DATE: <u>03-22-1</u>	
WATER TERMINED	1. CO ADI CEI 2. COI OR	DRESS: 38 KINS RTIFIED CORRE PRINT MMISSIONER'S CONSTRUCTIO	SEY PLA ECT BY: NAME: REPRE DN SUPE	CE, STATEN ISL Kak HAKIM GHAI SENTATIVE - RE RVISION CONSI	NEM SIDENT ENGI	DATE: <u>03-22-1</u>	9
	1. CO ADI CEI 2. CO OR ADI	DRESS: 38 KINS RTIFIED CORRE PRINT MMISSIONER'S CONSTRUCTIO DRESS: 14107 (RTIFIED CORRE	SEY PLA ECT BY: NAME: REPRE ON SUPE 20TH AV ECT BY:	CE, STATEN ISL HAKIM GHAN SENTATIVE - RE RVISION CONSI I'E #501, FLUSHII Johnson (NEM SIDENT ENGI JITANT: B&H NG, NY 11357 Aus	_ DATE: <u>03-22-1</u>	9
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WATER TERMINED	1. CO ADI CEI 2. CO OR ADI CEI	DRESS: 38 KINS RTIFIED CORRE PRINT MMISSIONER'S CONSTRUCTIO DRESS: 14107 / RTIFIED CORRE PRINT	REPRE NAME: NAME: REPRE DN SUPE 20TH AV ECT BY: NAME: CI RTM DIV	CE, STATEN ISL <u>HAKIM GHAI</u> SENTATIVE - RE RVISION CONSU 10HNSON CI JOHNSON CI TY OF N ENT OF	NEM SIDENT ENGI JILTANT: B&H NG, NY 11357 Jen HEN HEW YO TRANS	_ DATE: 03-22-1 NEER ENGINEERING PC _ DATE: 03-21- NRK PORTATI	2 19 ON
WATER TERMINED T CHANGE	1. CO ADI CEI 2. CO OO ADI CEI	DRESS: 38 KINS RTIFIED CORRE PRINT MMISSIONER'S CONSTRUCTIO DRESS: 14107 RTIFIED CORRE PRINT DEPAF	REPRE NAME: NAME: REPRE 20TH AV ECT BY: NAME: CI RTM	CE, STATEN ISL HAKIM GHAI SENTATIVE - RE RIVISION CONSI FUISION CONSI JOHNSON CH TY OF N ENT OF ISION O	IEW YO TRANS F BRID	DATE: 03-22-1	2 19 ON PROJ. NO.
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TT CHANGE AIN LIMIT	1. CO ADI CEI 2. CO OR ADI CEI NYS NYC	DRESS: 38 KINS RTIFIED CORRE PRINT MMISSIONER'S CONSTRUCTIO DRESS: 14107 // RTIFIED CORRE PRINT DEPAF P.I.N. NO. P.I.N. NO. ITRACT NO	SEY PLAA ECT BY: NAME: REPRE 20TH AV 20TH AV 2	CE, STATEN ISL HAKIM GHAI SENTATIVE - RE RVISION CONSI Johnson CI JOHNSON CI TY OF N ENT OF ISION O N/A 84115SIB HBRC039	ISDENT ENGINE SIDENT ENGINE ISDENT ENGINE ISDENT ENGINE ISDENT IEW YO TRANS IF BRID R934 RECON	DATE: 03-22-1	2 19 ON PROJ. NO. A J73
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S WAS BUILT WATER ETERMINED CT CHANGE AIN LIMIT SHEET HEET NO. 105	1. CO AD CE 2. CO AD CE CE NYS NYS	DRESS: 38 KINS PRINT MMISSIONER'S CONSTRUCTIO DRESS: 14107 3 RTIFIED CORRE PRINT DEPAF P.I.N. NO. P.I.N. NO. ITRACT NO REHAB	SEY PLAN ECT BY: INAME: REPRE SUPE 201H AV 201H AV	CE, STATEN ISL HAKIM GHAI SENTATIVE - RE RIVISION CONSI TE #501, FLUSHII Johnson CI SOHNSON CI TY OF N ENT OF VISION O N/A 84115SIB HBRC039 ATION / ELIGHT EN ISLAND	ISDENT ENGINE SIDENT ENGINE ISDENT ENGINE ISDENT ENGINE ISDENT IEW YO TRANS IF BRID R934 RECON	DATE: 03-22-1	2 DN PROJ. NO. A J73 ION



		SHEET NO.	TOTAL SHEETS				
		85	209				
REFERENCES							
1. FOR INDEX OF DRAWINGS, SEE DWG. NO. ID-1.							

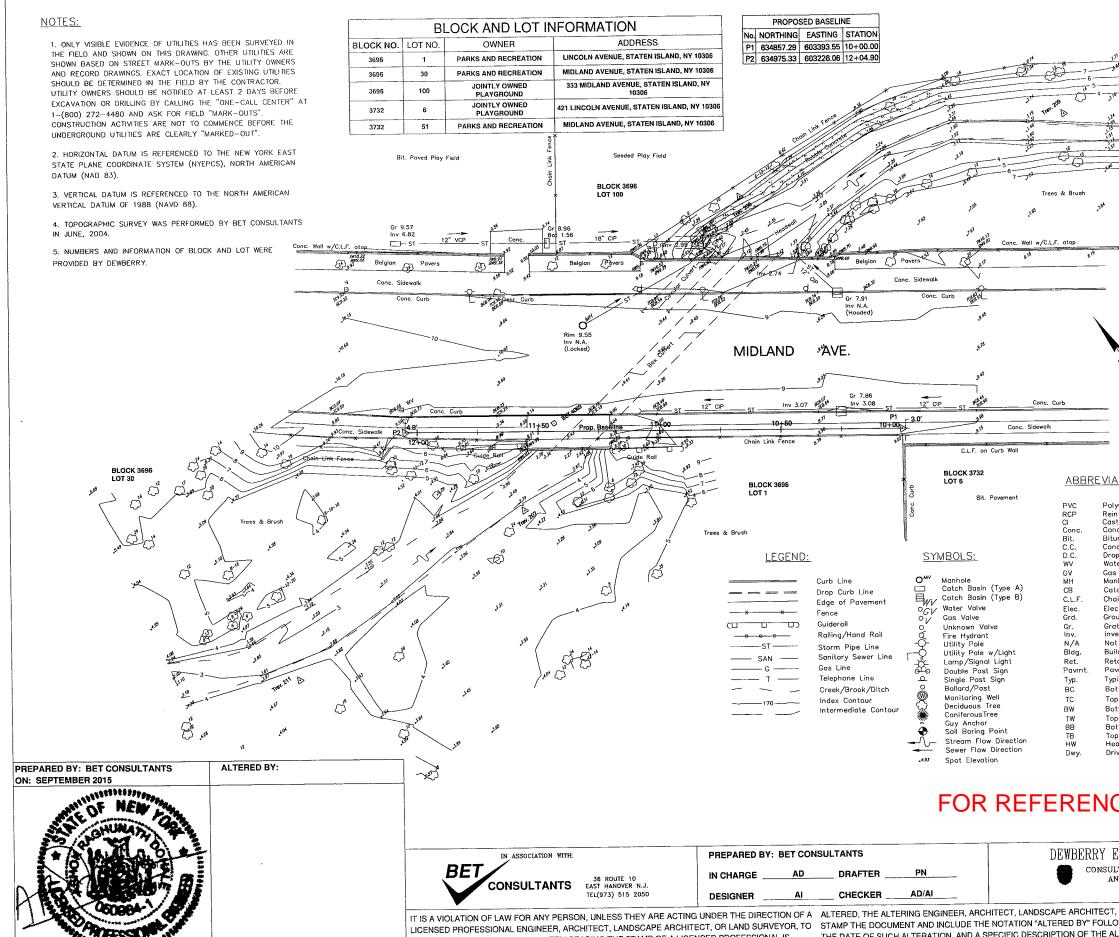
- 2. FOR LEGEND AND ABBREVIATIONS, SEE DWG, NO. LE-1.
- 3. FOR GENERAL NOTES, SEE DWG. NO. G-1 TO G-3.
- 4. FOR UTILITY NOTES, SEE DWG. NO. G-4.
- 5. FOR WORK ZONE TRAFFIC CONTROL NOTES, SEE DWG. NO. G-8.
- 6. FOR GENERAL PLAN, SEE DWG. NO. R023-S1.
- 7. FOR EXISTING PLAN, SEE DWG. NO. R023-S2.
- 8. FOR PROPOSED PLAN, SEE DWG. NO. R023-S5.

SCOPE OF WORK:

- 1. CLEAR DEBRIS AND VEGETATION FROM CHANNEL.
- 2. IMPLEMENT WORK ZONE TRAFFIC CONTROL IN THREE (3) STAGES
- 3. INSTALL TEMPORARY WATER DIVERSION STRUCTURE.
- 4. INSTALL TEMPORARY SHORING STRUCTURE.
- 5. INSTALL TREE PROTECTION BARRIER.
- 6. REMOVE EXISTING PIPE RAILING, CHAIN LINK FENCE, SIDEWALK, CURB, AND ASPHALT WEARING SURFACE AS SHOWN
- 7. EXCAVATE AND REMOVE EXISTING CULVERT STRUCTURE.
- 8. CONSTRUCT NEW CULVERT STRUCTURE.
- 9. CONSTRUCT NEW SIDEWALK, CURB, PIPE RAILING, CHAIN LINK FENCE, AND ASPHALT WEARING SURFACE AS SHOWN.
- 10. REMOVE AND REPLACE WATER MAIN AND SEWER.
- 11. INSTALL AND REMOVE TEMPORARY STRUCTURE FOR SIDEWALKS.

APPROXIMATE CONSTRUCTION DURATION:

-	9 MONTHS					
	-					
	CITY OF NEW YORK DEPARTMENT OF TRANSPORTATION DIVISION OF BRIDGES					
	NYS P.I.N. NO.			FED. A	AID PROJ. NO.	
	NYC P.I.N. NO.	84115SIBF	{934			
	CONTRACT NO), HBRC039		CD NO	D. J73	
	REHABILITATION / RECONSTRUCTION OF EIGHT CULVERTS					
	BOROUGH OF STATEN ISLAND B.I.N. R-00023					
	TITLE SHEET					
OR, TO ALL STAMP	DWG NO.	SCALE N.T.S.	DAT SEPT. 2		SHEET NO. 85	



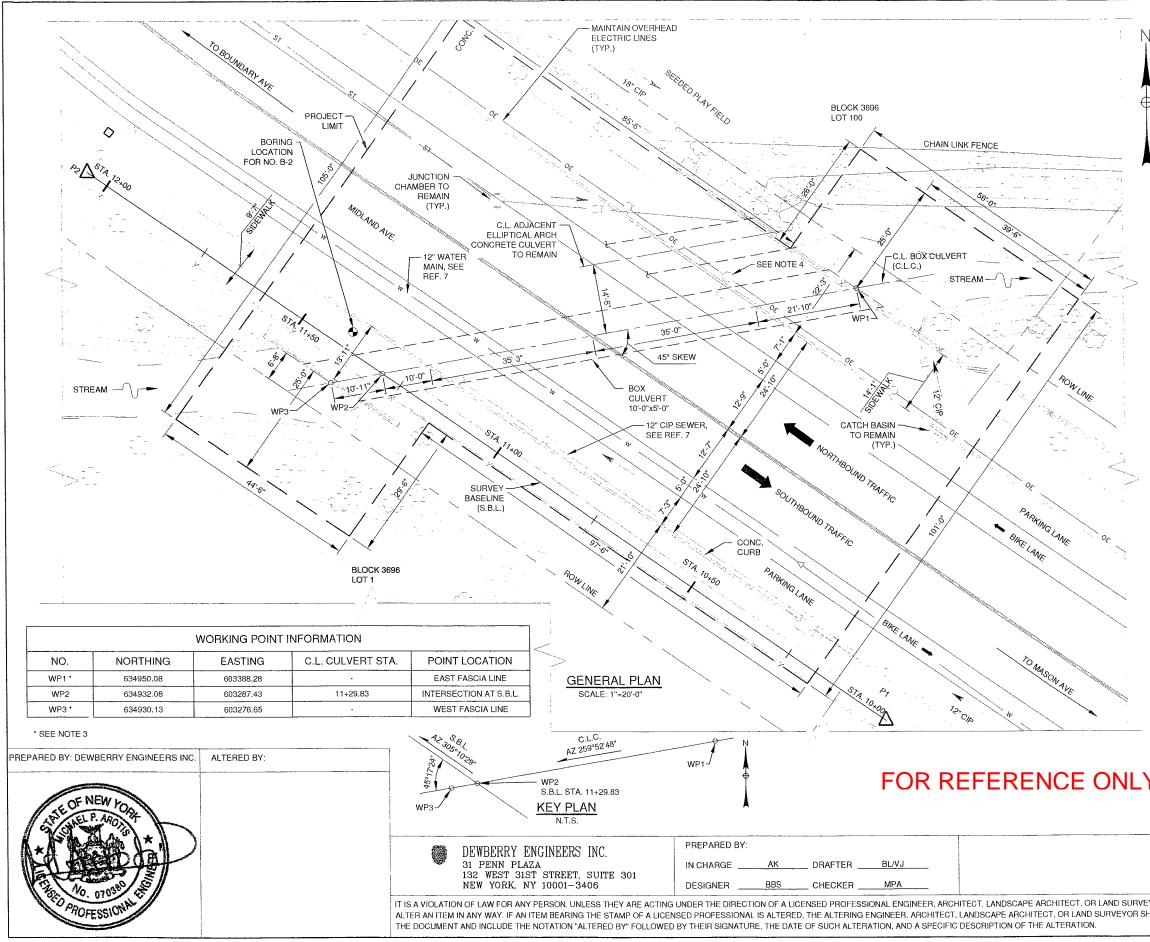
ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS

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							SHEET NO. 86	TOTAL SHEETS 209
BASELINE ASTING STATION 3393.55 10+00.00			BLOCK 3732 LOT 51					
	210 210 210 210 210 210 210 210	131 131 131 131 131 131 131 131	× × 6,1 × × × 6,1 5,0 					
	avers the state of	⁶ 1.9	⁶ 03					
*AVE.	3.18 	a a						
Gr 7.86 (264 Inv 3.08 SI	<u> </u>	Sonc. Curb	to all t					
Curb Line Drop Curb Line Edge of Pavement Edge of Pavement Saviderail Railing/Hand Roil Storm Pipe Line Sanitary Sewer Line Gos Line Telephone Line Creek/Brook/Ditch Index Contour Intermediate Contour	CLF. on Curb Woll BLOCK 3732 LOT 6 BIL Povement SYMBOLS: Manhole Catch Basin (Type A) Catch Basin (Type B) Catch Basin (Type	RCP Reinfr Cl Cast Conc. Concr Bit. Biturr C.C. Concr D.C. Drop WV Water GV Gas M MH Manh CB Catch C.L.F. Chain Elec. Elect. Grd. Grour Gr. Grate Inv. Inver N/A Not Bldg. Build Ret. Retain Pavmt. Pave Typ. Typic BC Bott TC Top BW Bott TW Top BB Bott TB Top HW Head Dwy. Drive	inyl Chloride Pipe orcad Concrete Pipe iron Pipe rete Curb Curb > Valve Valve Jole a Basin Link Fence ric ad Available ining ment al or of Curb or of Wall or of Bank dy Bank di Bank di Bank di Bank	NYS P.I.N. NO. NYC P.I.N. NO. CONTRACT NO	CITY OF NI TMENT OF T DIVISION OF 84115SIBF D. HBRC039 ILITATION / I OF EIGHT (F BRIDG	CD NO.) PROJ. NO J73
SULTANTS DRAFTER CHECKER	PN	CONSULT AND	NGINEERS, INC. ing engineers planners	BOROUGH OF S			B.I.N.	R-00023
STAMP THE DOCUME	NING ENGINEER, ARCHITECT, LANI NT AND INCLUDE THE NOTATION ALTERATION, AND A SPECIFIC DES	"ALTERED BY" FOLLOV	VED BY THEIR SIGNATU	HALL JRE, DWG NO. R023-T1	SCALE 1'' = 40'	DATE SEPT. 2	2015	SHEET NO. 86 R5 OF R2

DRAWING NO. : R5 OF R25



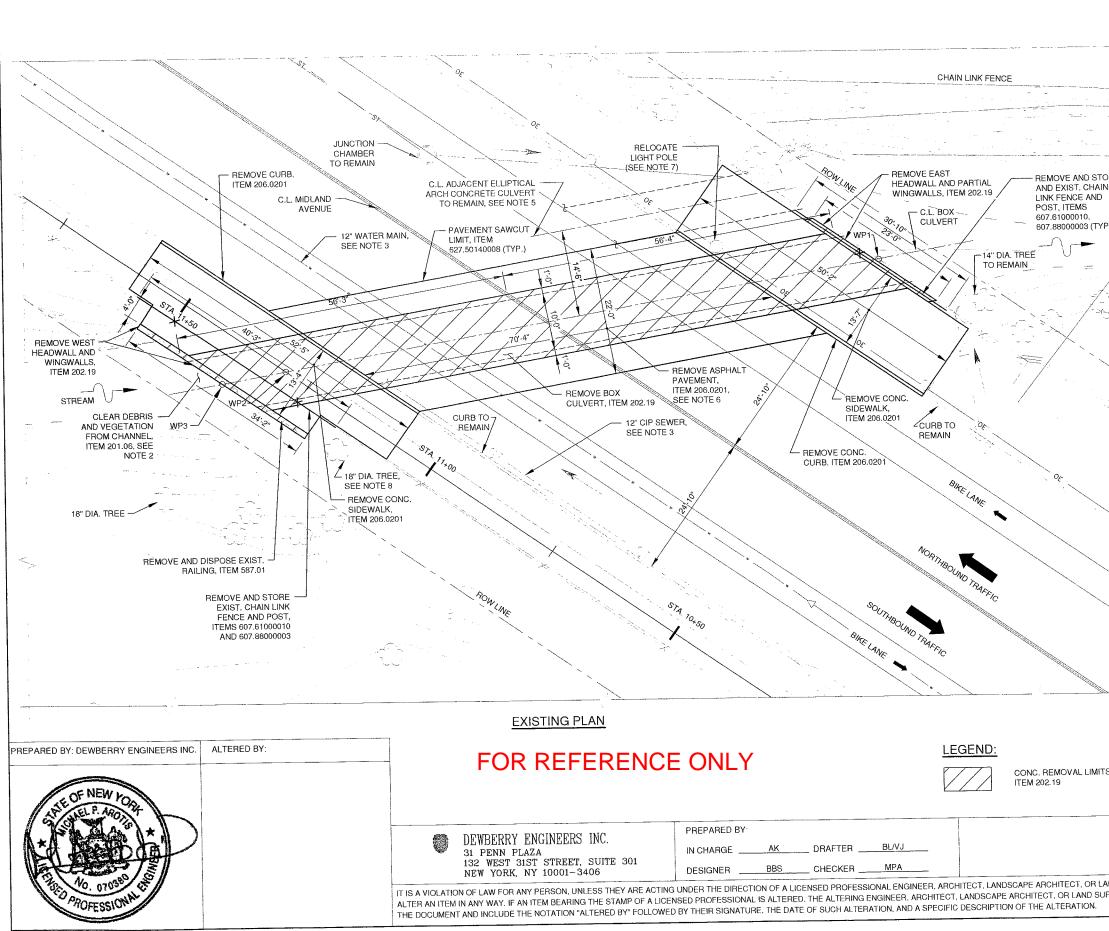
SHEET NO.	TOTAL SHEETS
87	209

- 1. EXISTING DRAWINGS ARE AVAILABLE FOR THIS CULVERT FROM NYCDEP ARCHIVES DATED DECEMBER 3, 1930. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO START OF WORK. ANY DISCREPANCIES FOUND SHALL BE MADE KNOWN TO THE ENGINEER IMMEDIATELY.
- 2. WORKING POINT COORDINATES ARE BASED ON THE COORDINATE SYSTEM AS SHOWN ON THE SURVEY AND R.O.W. PLAN. SEE REF. 6.
- WORKING POINT NOS. WP1 AND WP3 ARE ESTABLISHED ARBITRARILY FOR EASE OF REFERENCE PURPOSE. UNLESS OTHERWISE NOTED, OTHER WORKING POINTS ARE CALCULATED BASED ON WP2.
- 4. FOR DETAIL WORK OF TEMPORARY RELOCATING UTILITY POLES, PROVIDING TEMPORARY STREET LIGHTINGS AND PAY ITEMS, SEE REF. 7.
- 5. THE CONTRACTOR SHALL COORDINATE WITH NYCOOT FOR ANY PROPOSED STAGING AREA AND OBTAIN ANY NECESSARY PERMITS AT HIS OWN COST. THE CONTRACTOR SHALL MAINTAIN AND RESTORE THE STAGING AREA AS PER THE STIPULATIONS IN THE PERMIT AND TO THE SATISFACTION OF THE ENGINEER.

REFERENCES:

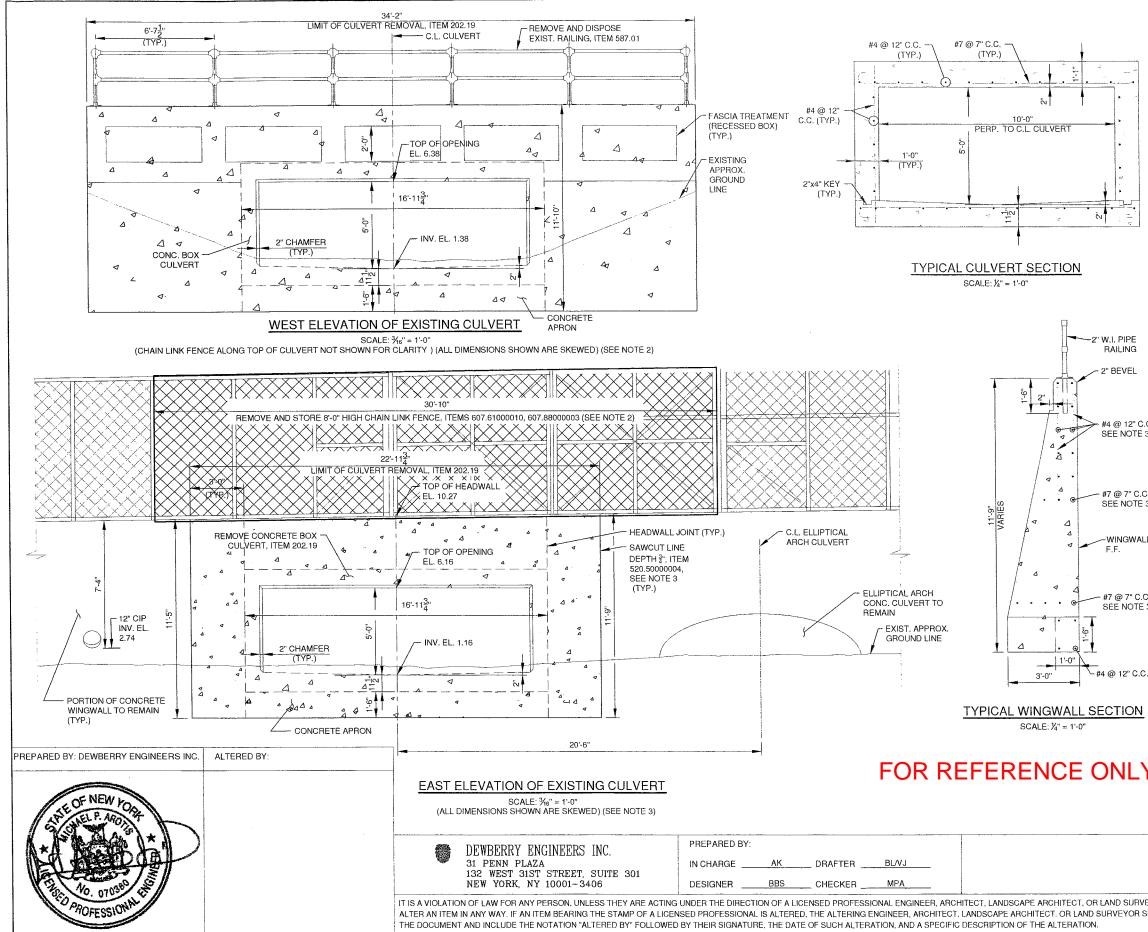
- 1. FOR LEGEND AND ABBREVIATIONS, SEE DWG. NO. LE-1.
- 2. FOR GENERAL NOTES, SEE DWG. NOS. G-1 TO G-3.
- 3. FOR EXISTING PLAN, SEE DWG. NO. R023-S2.
- 4. FOR PROPOSED PLAN, SEE DWG. NO. R023-S5.
- 5. FOR SOIL BORING LOG, SEE DWG. NO. R023-GT1.
- 6. FOR SURVEY AND R.O.W. PLAN, SEE DWG. NO. R023-T1.
- 7. FOR UTILITY PLAN, PROFILE AND SECTIONS. SEE DWG. NOS. R023-U1 AND R023-U2.

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	DEPAR	TMENT OF 7			ATION	
		DIVISION O	FBRID	GES		
	NYS P.I.N. NO.			FED. A	ND PROJ. NO.	
V	NYC P.I.N. NO.	84115SIBF	1934			
• •	CONTRACT NO	D. HBRC039		CD NO	D. J73	
	REHABI	LITATION / F			CTION	
		OF EIGHT (CULVER			
	BOROUGH OF	STATEN ISLAND		B.I.N.	R-00023	
	GENERAL PLAN					
		GENER				
/EYOR. TO						
SHALL STAMP	DWG NO. R023-S1	SCALE AS SHOWN	DAT SEPT.	- 1	SHEET NO. 87	



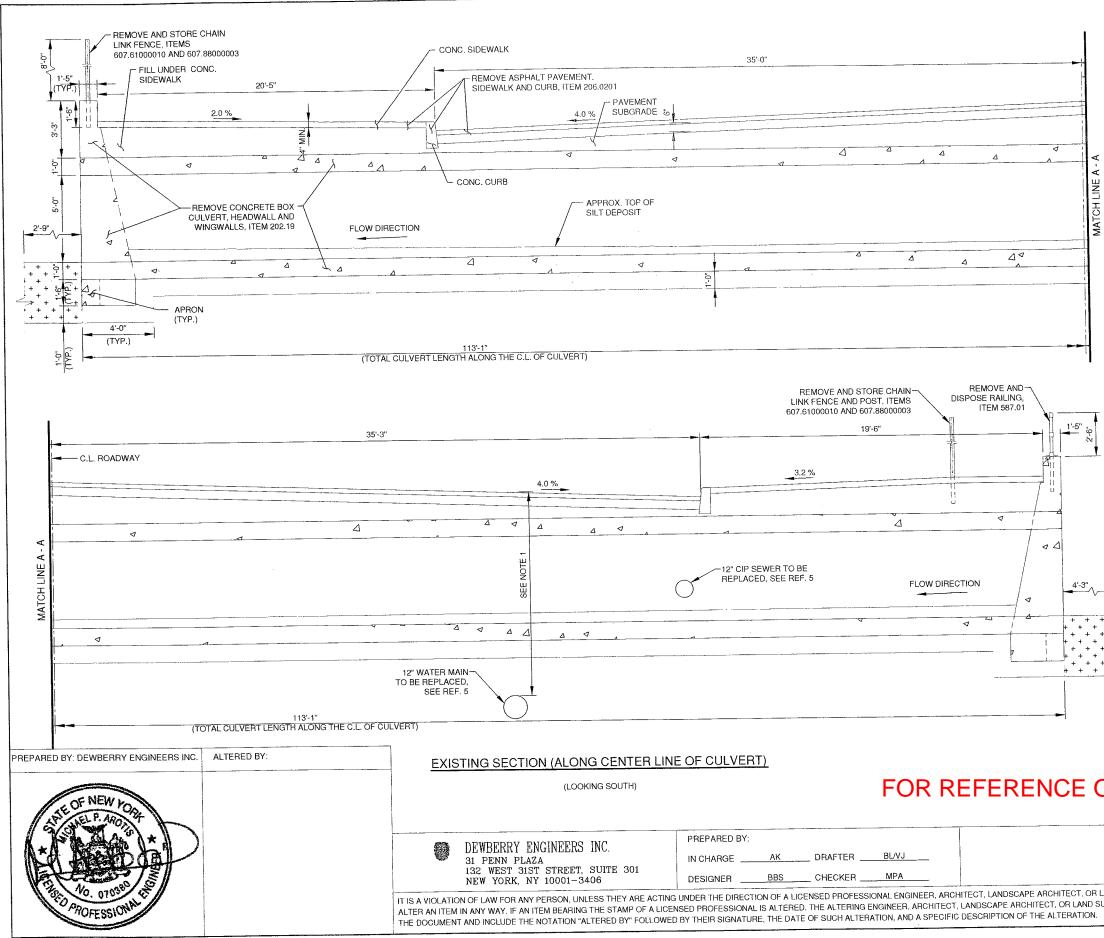
Ņ				SHEET NO.	TOTAL SHEETS			
				88	209			
A A	NOTES:	L						
	1. EXISTING DRAWINGS ARE AVAILABLE FOR THIS CULVERT FROM NYCDEP ARCHIVES DATED DECEMBER 3. 1930. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO START OF WORK. ANY DISCREPANCIES FOUND SHALL BE MADE KNOWN TO THE ENGINEER IMMEDIATELY.							
	BEYOND HEAD DURING CONS) GRUBBING SHAL WALLS. ALL CLEA TRUCTION AND CL) UNDER ITEM 201	RING ANI LEANUP \	D GRUBBIN	IG			
	3. FOR WATER M	FOR WATER MAIN AND STORM SEWER WORK, SEE REF. 8.						
	AND MAINTAIN	4. ALL EXISTING UTILITIES TO REMAIN SHALL BE PROTECTED AND MAINTAINED DURING CONSTRUCTION BY THE CONTRACTOR IN COORDINATION WITH UTILITY OWNER.						
YP.)	5. ADJACENT ELI PROTECTED D	LIPTICAL ARCH CO	NCRETE	CULVERT	IS TO BE			
/	6. FLOW IN CULV CONSTRUCTIO	ERT MUST BE MA	INTAINEE IPORARY) DURING WATER D	VERSION.			
- 7 ····	7. SEE DWG. NO	. R023-S1, NOTE N	O. 5.					
	ENVIRONMEN	CTOR SHALL COOP TAL PROTECTION						
1201-0	ANY. REFERENC	ES:						
	1. FOR LEGEND	AND ABBREVIATIO	ONS, SEE	DWG. NO.	LE-1.			
	2. FOR GENERA	L NOTES, SEE DW	G. NOS. (G-1 TO G-3				
	STATIONS AL	 FOR GENERAL PLAN AND WORKING POINT COORDINATES. STATIONS ALONG CENTER LINE OF CULVERT AND AZIMUTHS, SEE DWG. NO. R023-S1. 						
	 FOR EXISTING ELEVATIONS AND SECTIONS, SEE DWG, NOS. R023-S3 AND R023-S4. 							
	5. FOR PROPOSED PLAN, SEE DWG. NO. R023-S5.							
	6. FOR CONSTR	UCTION STAGING	, SEE DW	G. NO. R0	23-S9.			
	 FOR WORK ZONE TRAFFIC CONTROL PLANS, SEE DWG. NOS. R023-M1 TO R023-M8 AND R023-PM. 							
OF .	8. FOR UTILITY R023-U1 AND	PLAN, PROFILE AN U2.	ND SECTI	ONS, SEE	DWG, NOS.			
Ì È I								
1		CITY OF NE		DK				
		TMENT OF T	RANS	PORTA	TION			
	NYS P.I.N. NO.			FED. AI	D PROJ. NO.			
	NYC P.I.N. NO.	84115SIBR	934					
ITS,	CONTRACT NC			CD NO.				
	REHABI	LITATION / P OF EIGHT C			TION			
	BOROUGH OF	TATEN ISLAND		B.I.N.	R-00023			
		EXISTIN	G PLAN					
LAND SURVEYOR, TO SURVEYOR SHALL STAMP	DWG NO. R023-S2	SCALE 1/16" = 1'-0"	DA SEPT.		SHEET NO. 88			

DRAWING NO. : R7 OF R25



				SHEET NO.	TOTAL SHEETS
				89	209
	NOTES:				
		RAWINGS ARE AV	ALABLE FO	R THIS CU	LVERT
		EP ARCHIVES DAT		,	
	PRIOR TO S	TART OF WORK. A	NY DISCRE	PANCIES F	OUND
	ESTIMATE T	TE PURPOSE, THI	CHAIN LINK	FENCE R	EMOVAL
		GE TO BE 40'-3". T RT OPENINGS HAV			
	OPENING.				
		ACTOR SHALL RE			
	DRAWING F	/ WINGWALL TO TH OR THE EAST END	OF THE C	ULVERT. T	HE
		OR SHALL SAWCU ST END OF THE CL			
		HE CONCRETE RE MENT IN THE WIN			
	LINE ON EIT	HER SIDE OF THE	CULVERT	SHALL REM	VIAIN IN
	DRAWING M	MAY OR MAY NOT E			
	OF THE CUI	LVCNI.			
	REFEREN	ICES:			
		D AND ABBREVIA	TIONS, SEE	DWG. NO.	LE-1.
2	2. FOR GENER	RAL NOTES, SEE D	WG. NOS. (G-1 TO G-3	
.C., 3		RAL PLAN, SEE DW			
	4. FUR EXIST	ING PLAN, SEE DW	G. NO. HUZ	5-54.	
3	LEGEND				
	[CONCRETE F		міт	
L		ITEM 202.19			
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c.,					
3					
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		CITY OF N		R	
	DEPAF	RTMENT OF			
	/ / /	DIVISION O			
	NYS P.I.N. NO			FED. AID) PROJ. NO.
Y	NYC P.I.N. NO	. 84115SIBI	7934		
	CONTRACT N	O. HBRC039		CD NO.	J73
	REHAB	ILITATION / I	RECON	STRUC	TION
		OF EIGHT	CULVER	RTS	
	BOROUGH OF	STATEN ISLAND		B.I.N.	R-00023
			NC AND	REATION	
	EXIS	TING ELEVATIO	JINS AIND	SECTIO	GV
EYOR, TO					
SHALL STAMP	DWG NO.	SCALE	DAT	1	SHEET NO.
	R023-S3	AS SHOWN	SEPT.	2015	89

DRAWING NO. : R8 OF R25



SHEET NO.	TOTAL SHEETS
90	209

- 1. THE CONTRACTOR SHALL COORDINATE WITH NYCDEP AND FIELD VERIFY THE DEPTH OF EXISTING WATER MAIN CROSSING THE CULVERT PRIOR TO EXCAVATION. DEPTH OF EXISTING WATER MAIN CROSSING THE CULVERT TO BE OBTAINED FROM NYCDEP.
- 2. THE LOCATION OF ELLIPTICAL CULVERT SHOWN IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY IN THE FIELD PRIOR TO EXCAVATION. THE FILL MATERIAL BETWEEN THE ELLIPTICAL CULVERT AND THE BOX CULVERT IS NOT KNOWN. THE CONTRACTOR SHALL PROTECT THE ELLIPTICAL CULVERT IN PLACE DURING CONSTRUCTION AND EXHIBIT CAUTION DURING EXCAVATION AS TO NOT TO DAMAGE / UNDERMINE THE ELLIPTICAL CULVERT.

REFERENCES:

- 1. FOR LEGEND AND ABBREVIATIONS, SEE DWG. NO. LE-1.
- 2. FOR GENERAL NOTES, SEE DWG. NOS. G-1 TO G-3.
- 3. FOR GENERAL PLAN, SEE DWG. NO. R023-S1.
- 4. FOR EXISTING PLAN, SEE DWG. NO. R023-S2.
- 5. FOR UTILITY PLAN, PROFILE AND SECTIONS, SEE DWG. NOS. R023-U1 AND R023-U2.

LEGEND:



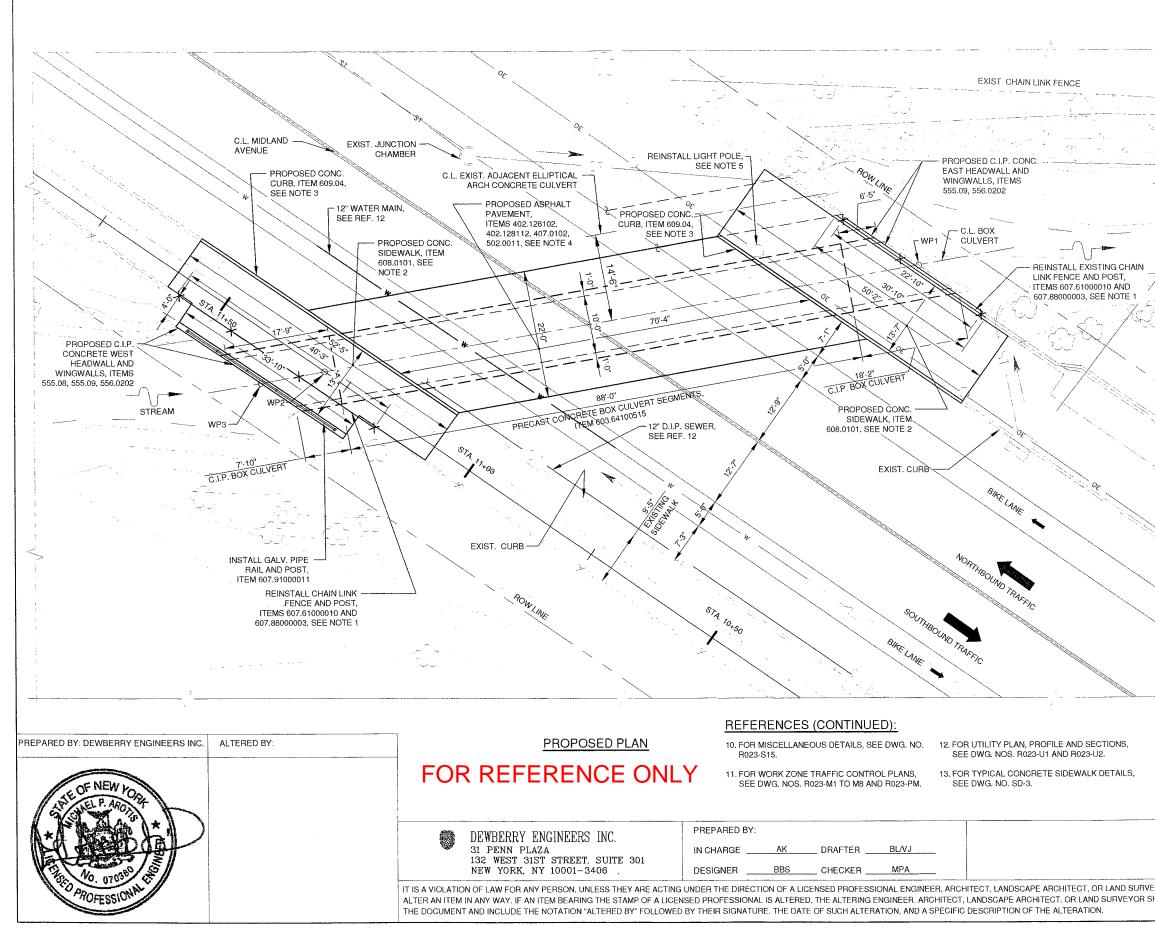
REMOVE ASPHALT PAVEMENT, SIDEWALK AND CURB, TRENCH AND CULVERT EXCAVATION LIMIT, ITEM 206.0201

CONCRETE REMOVAL LIMIT. ITEM 202.19

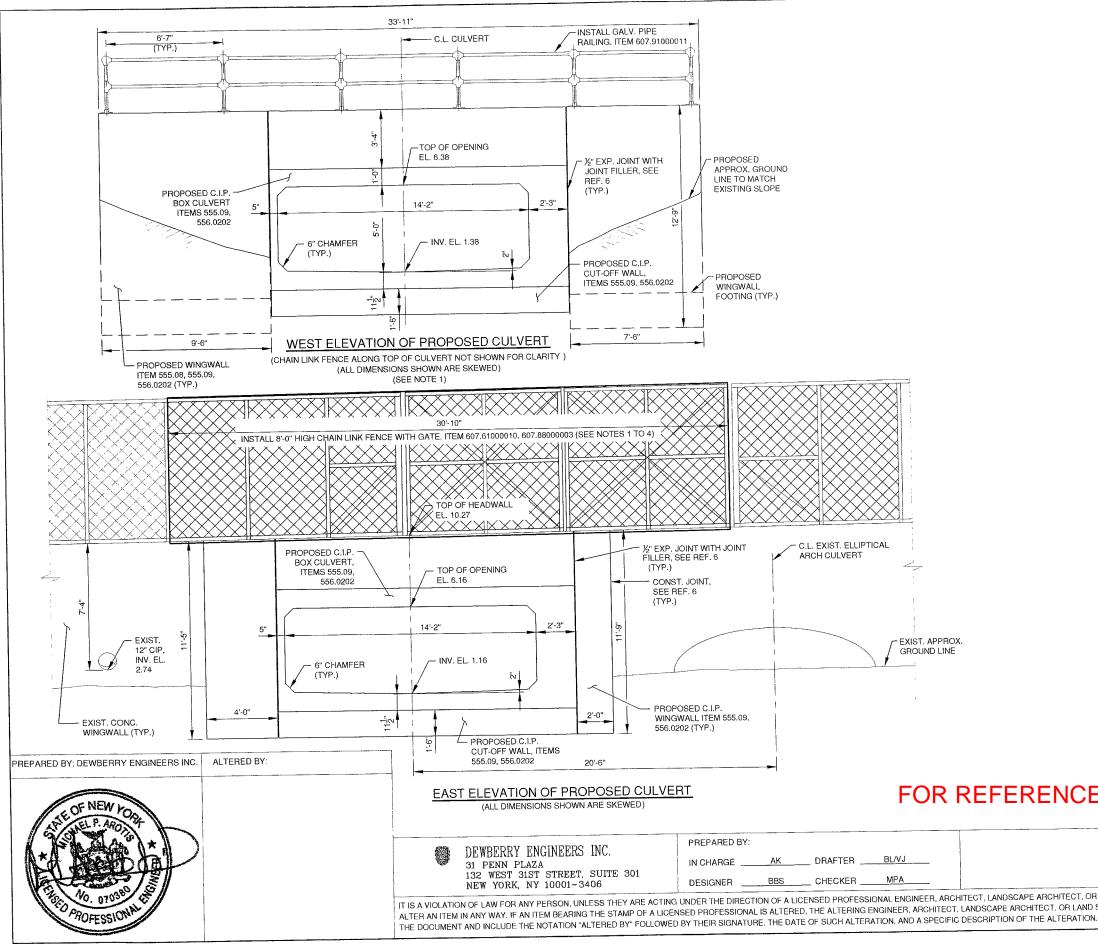
STRUCTURE EXCAVATION LIMIT, ITEM 206.01

+ + + + + + + + + + + + + + + + + + +							
	CITY OF NEW YORK DEPARTMENT OF TRANSPORTATION DIVISION OF BRIDGES						
	NYS P.I.N. NO.			FED. A	ID PROJ. NO.		
	NYC P.I.N. NO. 84115SIBR934						
ONLY	CONTRACT NO), J73		
	REHABILITATION / RECONSTRUCTION OF EIGHT CULVERTS						
	BOROUGH OF	STATEN ISLAND		B.i.N.	R-00023		
	EXISTING SECTION						
LAND SURVEYOR, TO	DWG NO.	SCALE	DAT	F	SHEET NO.		
URVEYOR SHALL STAMP	R023-S4	3/16" = 1'-0"	SEPT.		90		
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DRAWING NO. : R9 OF R25



		OUEET	
Ν		SHEET NO.	TOTAL SHEETS
Î		91	209
Å			
+ ₽	NOTES:		
ϕ	1. THE LIMITS OF CHAIN LINK FENCE AND F		
	REINSTALLATION MAY VARY BASED ON CONDITIONS OR A.O.B.E. INSTALL THE C	HAIN LINK F	
_	POST AND GATE IN ACCORDANCE WITH NYSDOT STANDARD SHEET NOS. 607-04		N
	2. THE GROOVING AND FINISHING OF THE	SIDEWALK	SURFACE
5	SHALL MATCH THE EXISTING SIDEWALK RELATED TO SIDEWALK WORK SHALL BI		
<u></u>	SIDEWALK ITEM 608.0101. FOR SIDEWAL DETAIL, SEE REF. 13.		
\leq	3, THE CONCRETE CURB SHALL BE INSTAI	LED IN	
1	ACCORDANCE WITH NYCDOT STANDAR CONSTRUCTION DRAWING NO. H-1044 -	D DETAILS (
	THE CONCRETE CURB SHALL BE PAID U		
	4. THE CONTRACTOR SHALL MATCH THE		
1	PAVEMENT FOR THE PROPOSED PAVEM		
7	 FOR DETAIL WORK OF TEMPORARY REI POLES, PROVIDING TEMPORARY STREI PAY ITEMS, SEE REF. 12. 		
	REFERENCES:		
-1	1. FOR LEGEND AND ABBREVIATIONS, SE	E DWG. NO	. LE-1.
1	2. FOR GENERAL NOTES, SEE DWG. NOS	. G-1 TO G-3	3.
	3. FOR GENERAL PLAN AND WORKING PO STATIONS ALONG CENTER LINE OF CL		
	AZIMUTHS, SEE DWG. NO. R023-S1. 4. FOR EXISTING PLAN, SEE DWG. NO. R0	123-82	
53	5. FOR PROPOSED ELEVATIONS, SEE DW		3-56
R.			
ہے	6. FOR PROPOSED SECTION, SEE DWG.		1
	 FOR EXCAVATION AND BACKFILL PLAN DWG. NO. R023-S8. 		
	8. FOR PROPOSED CULVERT LAYOUT, SI R023-S10 AND R023-S11.	EE DWG. NO	S.
	 FOR PROPOSED REINFORCING DETAI R023-S12 TO R023-S14, R023-S16 AND 		G. NOS.
\leq [
:			
	CITY OF NEW YO		
	DEPARTMENT OF TRANS DIVISION OF BRID		IUN
	NYS P.I.N. NO.		PROJ. NO.
	NYC P.I.N. NO. 84115SIBR934		
	CONTRACT NO. HBRC039	CD NO.	J73
	REHABILITATION / RECON	STRUC	FION
	OF EIGHT CULVE		
	BOROUGH OF STATEN ISLAND	B.I.N.	R-00023
	PROPOSED PLAI	N	
YOR, TO			
HALL STAMP	DWG NO. SCALE DA		SHEET NO.
· · · · · · · · · · · · · · · · · · ·	R023-S5 1/16" = 1'-0" SEPT.		91
	DRAWIN	G NO. : R	10 OF R25



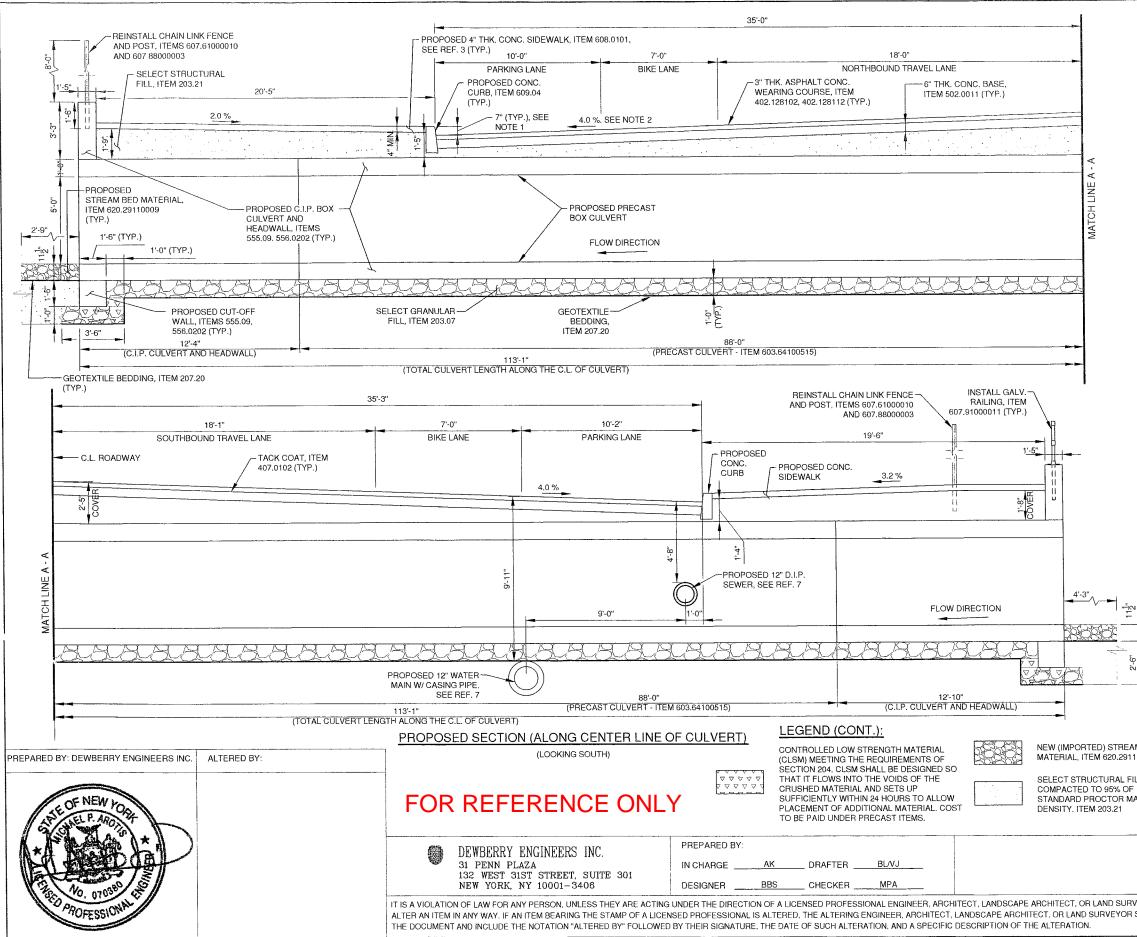
SHEET NO.	TOTAL SHEETS
92	209

- 1. FOR ESTIMATE PURPOSES, THE CONTRACTOR SHALL ESTIMATE THE QUANTITY OF CHAIN LINK FENCE REINSTALLED TO BE 40'-3". THE CHAIN LINK FENCE ABOVE THE CULVERT OPENINGS HAVE DOUBLE LEAF GATE OPENING.
- 2. THE EFFORT FOR REINSTALLING THE CHAIN LINK FENCE WITH POST SHALL BE PAID UNDER ITEM 607.61000010.
- 3. THE EFFORT FOR RESETTING THE CHAIN LINK FENCE GATE SHALL BE PAID UNDER ITEM 607.88000003.
- 4. THE LIMITS OF CHAIN LINK FENCE AND POST REINSTALLATION MAY VARY BASED ON THE FIELD CONDITIONS OR A.O.B.E. INSTALL THE CHAIN LINK FENCE, POST AND GATE IN ACCORDANCE WITH DETAILS ON NYSDOT STANDARD SHEET NOS. 607-04 / 05 / 06.

REFERENCES:

- 1. FOR LEGEND AND ABBREVIATIONS, SEE DWG. NO. LE-1.
- 2. FOR GENERAL NOTES, SEE DWG. NOS. G-1 TO G-3.
- 3. FOR GENERAL PLAN, SEE DWG. NO. R023-S1.
- 4. FOR EXISTING PLAN, SEE DWG. NO. R023-S2.
- 5. FOR PROPOSED PLAN, SEE DWG. NO. R023-S5.
- 6. FOR CULVERT LAYOUT AND JOINT DETAILS, SEE DWG. NO. R023-S10.
- 7. FOR CAST-IN-PLACE CULVERT REINFORCING DETAILS. SEE DWG. NO. R023-S12.
- 8. FOR CAST-IN-PLACE WINGWALL REINFORCING DETAILS, SEE DWG, NO. R023-S13 AND R023-S14.
- 9. FOR MISCELLANEOUS DETAILS, SEE DWG. NO. R023-S15.

	CITY OF NEW YORK DEPARTMENT OF TRANSPORTATION DIVISION OF BRIDGES					
-	NYS P.I.N. NO.			FED. A	AID PROJ. NO.	
	NYC P.I.N. NO. 84115SIBR934					
	CONTRACT NO). HBRC039		CD NO	D. J73	
EONLY	REHABILITATION / RECONSTRUCTION OF EIGHT CULVERTS					
	BOROUGH OF	STATEN ISLAND		B.I.N.	R-00023	
	PROPOSED ELEVATIONS					
LAND SURVEYOR, TO SURVEYOR SHALL STAMP	DWG NO. R023-S6	SCALE 3/16" = 1'-0"	DAT SEPT.	-	SHEET NO. 92	



SHEET NO.	TOTAL SHEETS
93	209

- 1. THE CONCRETE CURB HEIGHT SHALL MATCH THE EXISTING CURB HEIGHT ALONG THE ROADWAY.
- 2 THE CONTRACTOR SHALL VERIFY THE SLOPE OF THE EXISTING ROADWAY AND SIDEWALK AND MATCH WITH THE EXISTING. AS THE EXISTING ROADWAY HAS A TRAVEL LANE, BIKE LANE AND PARKING LANE THE SLOPES ON THE ROADWAY SHALL MATCH THE EXISTING ROADWAY SLOPES.
- 3. THE TRAVEL / PARKING AND BIKE LANE WIDTHS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY AND MATCH THE EXISTING IN FIELD.
- 4. THE CONTRACTOR SHALL COORDINATE WITH NYCDEP AND FIELD VERIFY THE DEPTH OF EXISTING WATER MAIN CROSSING THE CULVERT PRIOR TO EXCAVATION. DEPTH OF EXISTING WATER MAIN CROSSING THE CULVERT TO BE OBTAINED FROM NYCDEP.

REFERENCES:

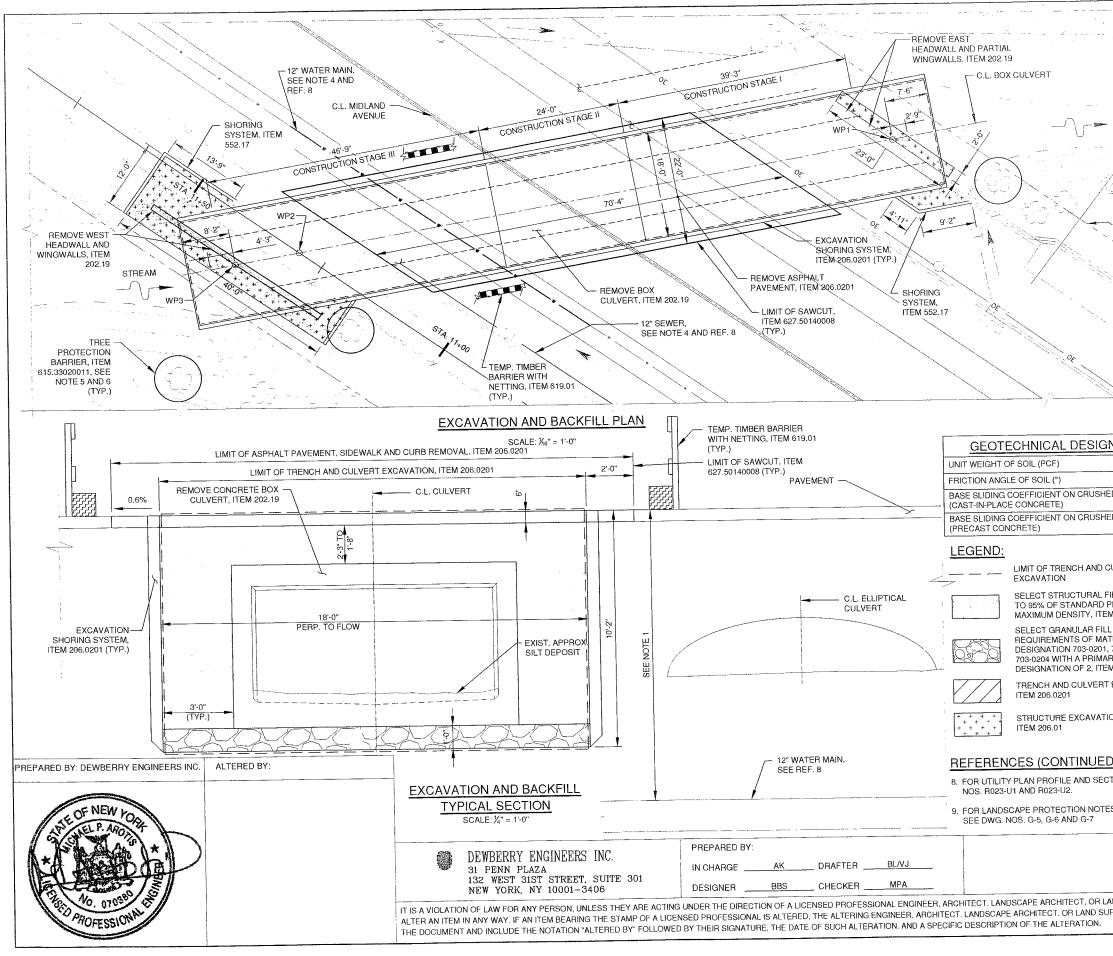
- 1. FOR LEGEND AND ABBREVIATIONS, SEE DWG. NO. LE-1.
- 2. FOR GENERAL NOTES, SEE DWG. NOS. G-1 TO G-3.
- 3. FOR PAVEMENT AND SIDEWALK RECONSTRUCTION, SEE DWG. NO. SD-3.
- 4, FOR GENERAL PLAN, SEE DWG. NO. R023-S1.
- 5. FOR EXISTING PLAN, SEE DWG. NO. R023-S2.
- 6. FOR PROPOSED PLAN, SEE DWG. NO. R023-S5.
- 7. FOR UTILITY PLAN, PROFILE AND SECTIONS, SEE DWG. NOS. R023-U1 AND U2.

LEGEND:

SELECT GRANULAR FILL MEETING REQUIREMENTS OF MATERIAL DESIGNATION 703-0201, 703-0202 OR 703-0204 WITH A PRIMARY SIZE DESIGNATION OF 2, ITEM 203.07

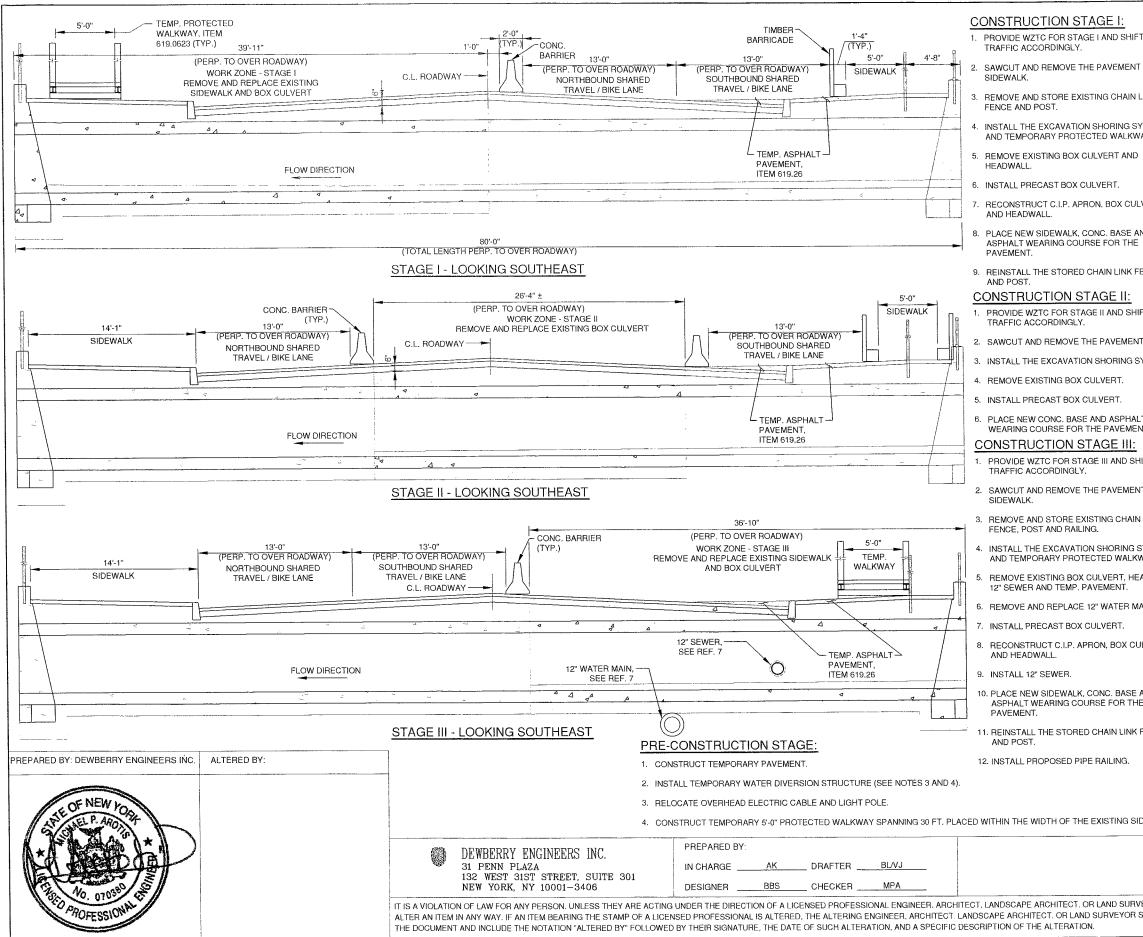
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LL	NYC P.I.N. NO.	84115SIBF	1934					
	CONTRACT NO), HBRC039		CD NC). J73			
	REHABI	LITATION / F OF EIGHT (CTION			
	BOROUGH OF	STATEN ISLAND		B.I.N.	R-00023			
/EYOR. TO		PROPOSE) SECTIC	N				
SHALL STAMP	DWG NO. R023-S7	SCALE 3/16" = 1'-0"	DAT SEPT.	_	SHEET NO. 93			

DRAWING NO. : R12 OF R25

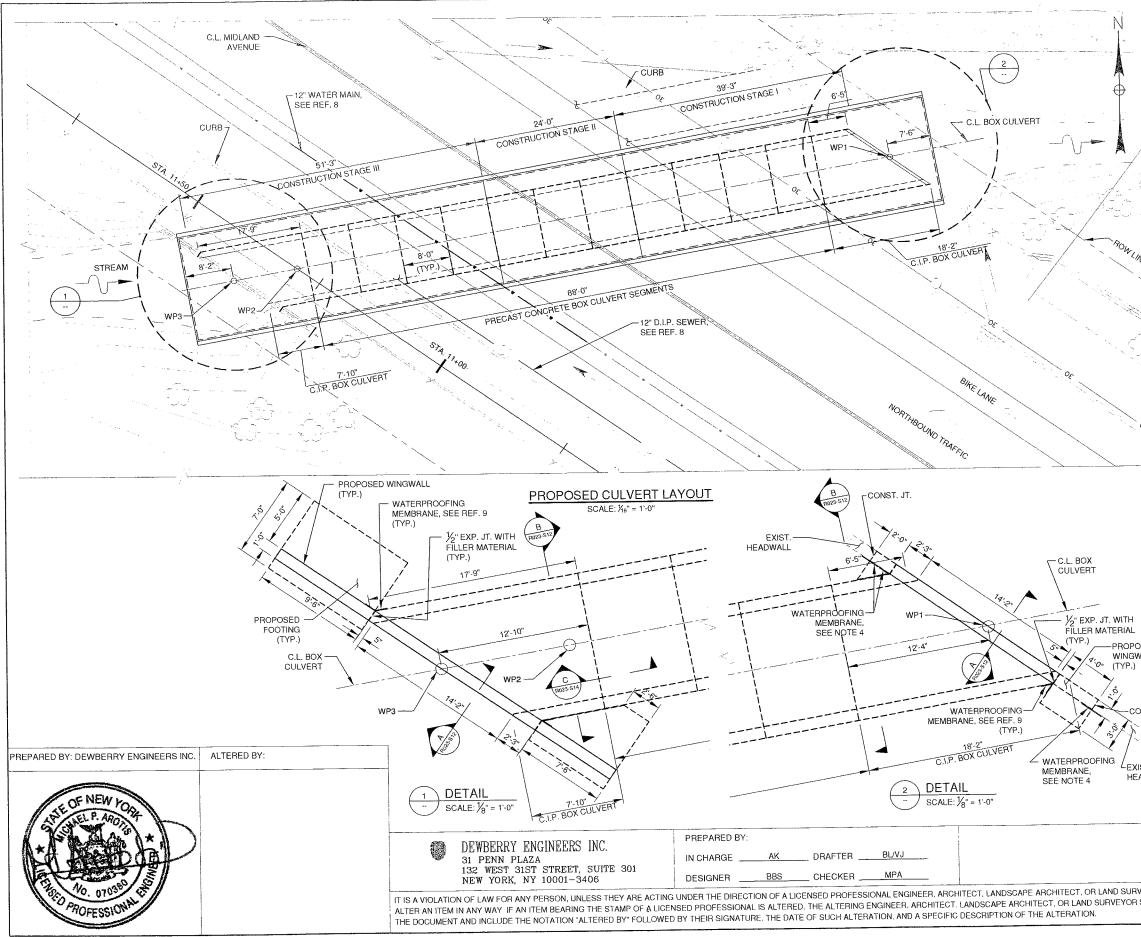


					SHEET NO.	TOTAL SHEETS
	N				94	209
			L			
	A	NOTES:				
	ϕ	1. THE CONTRACT				
		FIELD VERIFY TH CROSSING THE	IE DEPTH OF EXIS CULVERT AND RE INT PIPE WATER I	STING 12 EPLACE I	2" WATER I	MAIN
	A	2. ADJACENT ELLI	PTICAL ARCH CON RING CONSTRUC			IS TO BE
		OF ELLIPTICAL /	ARCH CULVERT IS	S NOT KN	IOWN, THE	
		INTEGRITY OF T TO REMAIN.	HALL MAIN LAIN T HE ELLIPTICAL AF			JLVERT
, _{*0} , <	~	3. FLOW IN CULVE CONSTRUCTION 4.	RT MUST BE MAIN N THROUGH TEMP	NTAINED PORARY	DURING WATER DI	VERSION.
ROWLINE		THE CONTRACT	T SHALL PERFORM THIN A 3-FOOT D TATER MAIN.			
4		5. TREE PROTECT	TION BARRIER SH	ALL ALS	D COVER F	PAY ITEMS
14 M		PROTECTION B DETAILS SEE D	601, 610.19 AND 61 ARRIER AND LANI WG. NO. G-6.	15.43000 DSCAPE	011. FOR T RESTORA	HEE TION
22		EXCAVATION. T 206.04010011. T LANDSCAPE AF	TOR MAY NEED TO THE EFFORT SHAL THE CONTRACTOR TER CONSTRUCT	LL BE PA R SHALL	ID UNDER RESTORE	ITEM THE
1						
		1. FOR LEGEND A		NS. SEE	DWG. NO.	LE-1.
		2. FOR GENERAL	NOTES, SEE DWO	3. NOS. (G-1 TO G-3	
		3. FOR GENERAL	PLAN, SEE DWG.	NO. R02	3-S1.	
<u>NDAIA</u>	120	4. FOR EXISTING	PLAN, SEE DWG.	NO. R02	3-S2.	
	34	5. FOR PROPOSE	ED PLAN, SEE DWO	G. NO. R	023-S5.	
D STONE	0.78	6. FOR CONSTRU	JCTION STAGING.	SEE DW	(G. NO. R02	23-S9.
D STONE	0.62		NE TRAFFIC CON 8 AND R023-PM.	ITROL PL	ANS. SEE	DWG. NOS.
	F	FOR RE	FERE	NC	ΕO	NLY
ULVERT				_		
ILL COMPAC ⁻ ROCTOR 1 203.21	TED					
MEETING						
ERIAL 703-0202 OR						
RY SIZE M 203.07						
EXCAVATION	N LIMIT,					
			CITY OF NE			
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)):		NYS P.I.N. NO.			FED. All	D PROJ. NO
TIONS, SEE (DWG.	NYC P.I.N. NO.	84115SIBR9	934	00.110	170
		CONTRACT NO.		ECON	CD NO.	
S AND DETAI	ILS,		ITATION / R			NUN
		BOROUGH OF ST			B.I.N.	R-00023
		EXCAVATIO	N AND BACKF	ILL PLA	N AND S	ECTION
ND SURVEYOR		DWG NO.	SCALE	DA	1	SHEET NO
		R023-S8	AS SHOWN	SEPT.	2015	94

DRAWING NO. : R13 OF R25



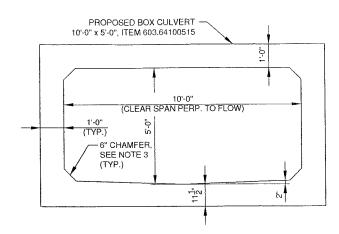
				SHEET NO.	TOTAL SHEETS		
T THE				95	209		
r and	NOTES:						
LINK	1. THE CONTRACT						
	FOUND SHALL B	START OF WORK E MADE KNOWN T			JIES		
YSTEM /AY.	IMMEDIATELY.						
	2. THE CONTRACT REMAIN IN PLAC		CT EXIS	STING UTILI	TIES TO		
	3. THE CONTRACT				AND		
	CONSTRUCTION	DIVERT THE WAT	T FOR 1	EMPORAR'			
VERT	DIVERSION SHALL BE PAID UNDER ITEM 553.030023. IN THE EVENT THAT THE STRUCTURE'S CAPACITY IS EXCEEDED, THE CONTRACTOR SHALL REMOVE THE TEMPORARY						
ND	WATER DIVERS	ION STRUCTURE /	AND LE	T THE WATE	ER		
	SHALL TAKE AD	ROUGH THE CULV EQUATE MEASUR	ES NOT	TO COMP	ROMISE		
ENCE		/ INTEGRITY OF TH SUPPORTING ELEI			INING		
	4. THE CONTRACT				INTAIN		
FT THE	THE WATER FLO	OWING THROUGH	THE CL	JLVERT.			
	REFERENCE	ES:					
т.	1. FOR LEGEND A		√S, SEE	DWG, NO. I	LE-1.		
SYSTEM.	2. FOR GENERAL NOTES, SEE DWG, NOS. G-1 TO G-3.						
	3. FOR EXISTING	PLAN, SEE DWG. N	10. R02	3-S2.			
	4. FOR PROPOSE	D PLAN, SEE DWG	i. NO. RI	023-85.			
_T NT.	5. FOR EXCAVATI		PLAN	AND SECTIO	DN, SEE		
	DWG. NO. R023-S8.						
IFT THE	 FOR WORK ZONE TRAFFIC CONTROL PLANS, SEE DWG. NOS. R023-M1 TO M8 AND R023-PM. 						
IT AND	7. FOR UTILITY PLAN, PROFILE AND SECTIONS, SEE DWG. NOS. R023-U1 AND R023-U2.						
	OR RE						
SYSTEM WAY.		FEREI					
ADWALL,							
AIN.							
JLVERT							
E		CITY OF NEV					
FENCE		VENT OF TR			ION		
	NYS P.I.N. NO.				PROJ. NO.		
	NYC P.I.N. NO.	84115SIBR93	4				
	CONTRACT NO.	HBRC039		CD NO.	J73		
DEWALK.		TATION / RE			ION		
		OF EIGHT CL	JLVE		B 00000		
	BOROUGH OF ST	ALEN ISLAND		B.I.N.	R-00023		
	C						
		TYPICAL SE	CHON	5			
/EYOR, TO SHALL STAMP	DWG NO.	SCALE	DAT	1	SHEET NO.		
	R023-S9	1/8" = 1'-0"	SEPT.	2015	95		
		DR/	AWING	G NO. : R [.]	14 OF R25		



			SHEET NO.	TOTAL SHEETS
N T			96	209
-		<u></u>		
	NOTES			
Φ	NOTES:	EACH CULVERT SEGME	NT SHALL B	E
	DETERMINED BY CULVERT SEGM	AGING REQUIREMENTS.	E PRECAST	BOX
	IS BASED ON TH	CULVERT LENGTH SHOW IE SUGGESTED CONSTR BOX CULVERT SEGMENT	UCTION STA	Drawing Aging
	3. WE SUGGEST T TO BE CONSTRI	HAT THE C.I.P. WINGWA	LLS AND HE BOX CULVE	ADWALL ERT.
		NG MEMBRANE SHALL B ON WINGWALLS, SEE RE		ON THE
OWINE				
	REFERENCE			
		ND ABBREVIATIONS, SEI		
	2. FOR GENERAL	NOTES, SEE DWG. NOS.	G-1 TO G-3.	
·	3. FOR GENERAL	PLAN, SEE DWG. NO. RO	23-S1.	
		PLAN, SEE DWG. NO. RO		
	5. FOR EXISTING R023-S3 AND R	ELEVATIONS AND SECTI 023-S4.	ONS, SEE D	WG. NO.
		D PLAN, SEE DWG. NO. I		
04	7. FOR EXCAVAT DWG, NO. R023	ION AND BACKFILL PLAN 3-S8.	AND SECTI	ON, SEE
<u> </u>	8. FOR UTILITY P R023-U1 AND F	LAN, PROFILE AND SECT R023-U2.	'IONS, SEE [)WG. NOS,
	9. FOR WATERPF SD-3.	ROOFING MEMBRANE DE	TAILS, SEE	DWG. NO.
FO	R REFE	RENCE	ONL	Y
[<u></u> . <u>.</u>			
T. WITH				
ATERIAL				
PROPOSED WINGWALL				
(TYP.)				
0 		CITY OF NEW Y		
CONST. JT.		MENT OF TRANS	SPORTA	TION
in the second		VISION OF BRI	- [D PROJ. N
× /	NYS P.I.N. NO.			

in Si	DIVISION OF BRIDGES				
	NYS P.I.N. NO.		FED. A	ID PROJ. NO.	
ING LEXIST.	NYC P.I.N. NO.	84115SIBR	1934		
HEADWALL	CONTRACT NO	D. HBRC039	CD NO	D. J73	
	REHABILITATION / RECONSTRUCTION OF EIGHT CULVERTS				
	BOROUGH OF	STATEN ISLAND	B.I.N.	R-00023	
	F	PROPOSED CUI	LVERT LAYOUT		
LAND SURVEYOR, TO SURVEYOR SHALL STAMP	DWG NO. R023-S10	SCALE AS SHOWN	DATE SEPT. 2015	SHEET NO. 96	

DRAWING NO. : R15 OF R25



TYPICAL PRECAST CULVERT SECTION

BOX CU	LVERT DESIGN DATA			
VEHICULAR DESIGN HL-93 AND NYSDOT DESIGN PERMIT LIVE LOAD VEHICLE UNLESS OTHERWISE NOTED				
PEDESTRIAN DESIGN LIVE LOAD	85 PSF			
CLEAR SPAN	10'-0" (PERP. TO FLOW)			
CLEAR RISE	5'-0"			
MIN. FILL HEIGHT*	1'-2"			
MAX. FILL HEIGHT*	2'-5"			
SKEW ANGLE PERP. TO C.L. OF ROADWAY	45 DEG.			

* BASED ON TOP SLAB THICKNESS OF 12 INCHES.

LOAD RATING (L	OAD AND RESIS	STANCE FACTOR)
INVENTORY	HL.	TONS
OPERATING	HL	TONS

(LOAD RATING TABLE TO BE FILLED BY E.I.C.)

·				
		-		
			CITY OF NE DEPARTMENT OF TR DIVISION OF	RANSPORTATION
PREPARED BY: DEWBERRY ENGINEERS INC. ALTERED BY:]		NYS P.I.N. NO. NYC P.I.N. NO. 84115SIBR9	FED. AID PROJ. NO.
			CONTRACT NO. HBRC039	CD NO. J73
AT HELP. AROTH			REHABILITATION / RE OF EIGHT C	
((* Frederick))	DEWBERRY ENGINEERS INC.	PREPARED BY:	BOROUGH OF STATEN ISLAND	B.I.N. R-00023
	31 PENN PLAZA 132 WEST 31ST STREET, SUITE 301	IN CHARGEAK DRAFTERBL/VJ	PRECAST CULV	ERT DETAILS
No. 07038 8	NEW YORK, NY 10001-3406	DESIGNERBBSCHECKERMPA		
10 PROFESSIONAL	ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LI	ING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP NED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.	DWG NO. SCALE R023-S11 1/4" = 1'-0"	DATE SHEET NO. SEPT. 2015 97

SHEET NO.	TOTAL SHEETS
97	209

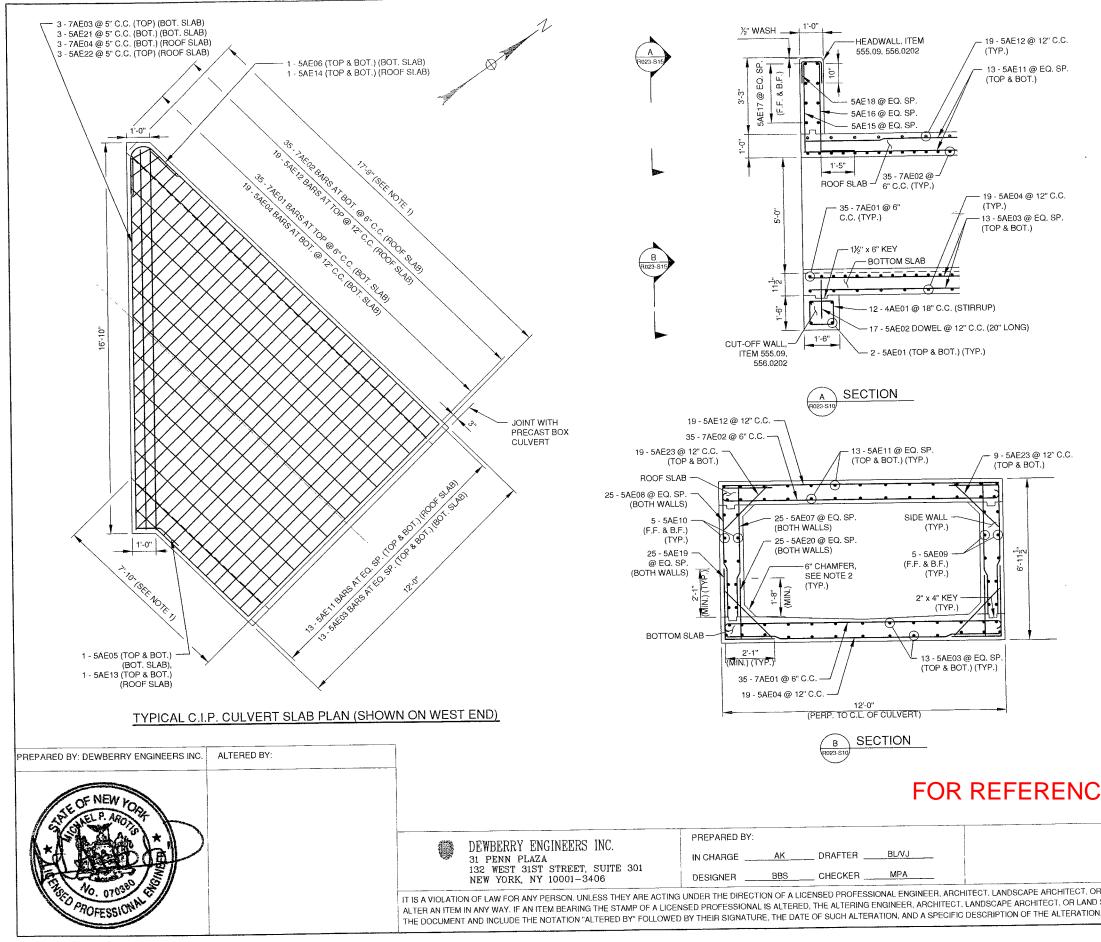
NOTES:

- 1. THE LENGTH OF EACH CULVERT SEGMENT SHALL BE DETERMINED BY THE CONTRACTOR. THE PRECAST BOX CULVERT SEGMENT LENGTH MUST BE COMPATIBLE WITH SUGGESTED STAGING REQUIREMENTS.
- 2. THE CONTRACTOR SHALL SUBMIT ALL THE CALCULATIONS AND DETAILS RELATED TO THE PRECAST CONCRETE BOX CULVERT CONSTRUCTION AND INSTALLATION SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN STATE OF NEW YORK IN ACCORDANCE WITH THE SPECIFICATION.
- 3. THE CHAMFER OF CAST-IN-PLACE CULVERT SECTION AND PRECAST CULVERT SECTION SHALL BE SAME.
- 4. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF THE STORM SEWER OPENING IN THE PRECAST CULVERT SECTION. THE PRECAST CULVERT SECTION SHALL PROVIDE ADDITIONAL REINFORCEMENT AROUND THE OPENING FOR STORM SEWER PIPE.

REFERENCES:

- 1. FOR LEGEND AND ABBREVIATIONS, SEE DWG, NO. LE-1.
- 2. FOR GENERAL NOTES, SEE DWG, NOS. G-1 TO G-3.
- 3. FOR GENERAL PLAN, SEE DWG. NO. R023-S1.
- 4. FOR PROPOSED PLAN, SEE DWG. NO. R023-S5.
- 5. FOR PROPOSED ELEVATIONS, SEE DWG. NO. R023-S6.
- 6. FOR PROPOSED SECTIONS, SEE DWG, NO. R023-S7.
- 7. FOR PROPOSED CONSTRUCTION STAGING, SEE DWG. NO. R023-S9.
- 8. FOR PROPOSED CULVERT LAYOUT, SEE DWG. NO. R023-S10.

DRAWING NO. : R16 OF R25



SHEET NO.	TOTAL SHEETS
98	209

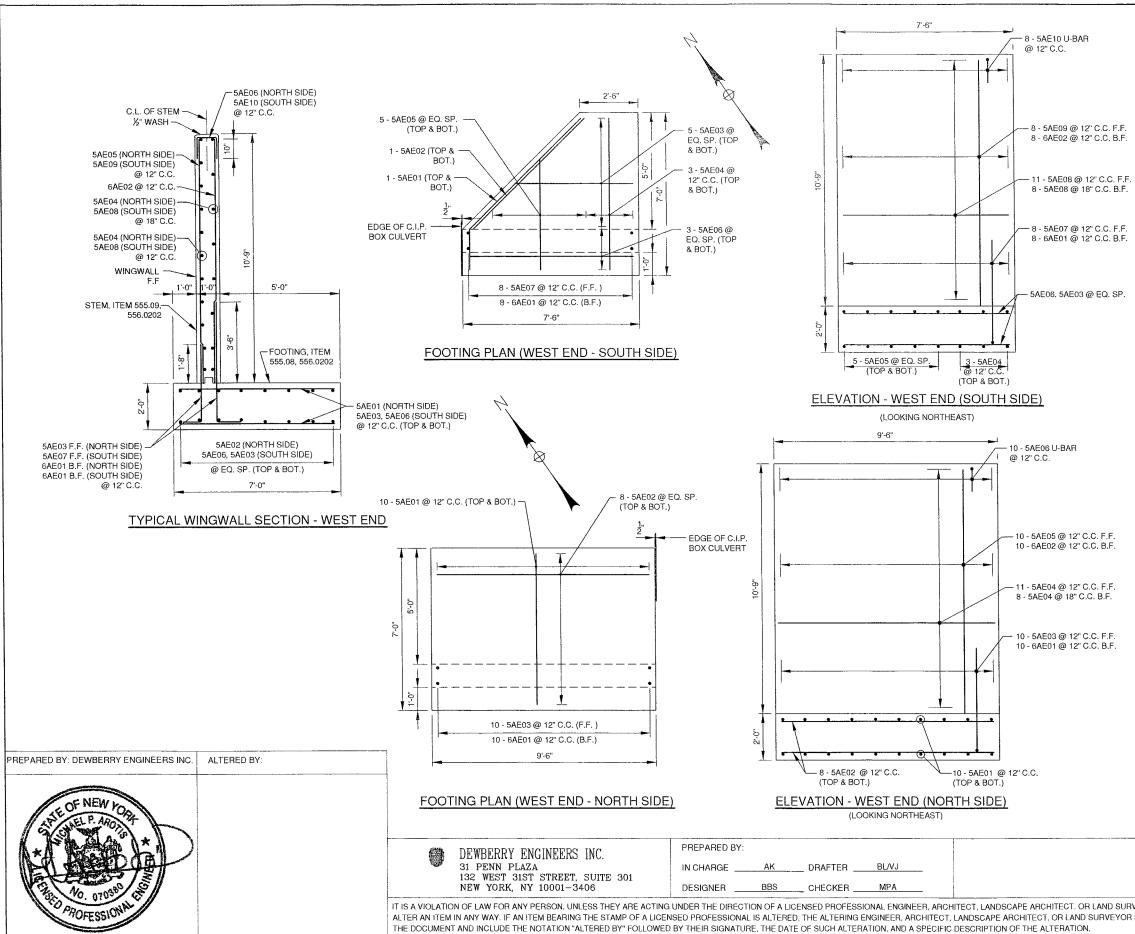
- 1. THE DIMENSIONS SHOWN FOR THE C.I.P. ROOF SLAB ARE BASED ON THE SUGGESTED CONSTRUCTION SCHEME. THE ACTUAL DIMENSIONS SHALL BE GOVERNED BY THE PRECAST BOX CULVERT INSTALLATION. THE ROOF SLAB REINFORCEMENT SHOWN WILL BE SIMILAR FOR EITHER END OF THE BOX CULVERT. THE CULVERT SLAB ON THE EAST END SHALL BE SIMILAR AND OPPOSITE HAND.
- 2. THE CHAMFER OF CAST-IN-PLACE CULVERT SECTION AND PRECAST CULVERT SECTION SHALL BE SAME.

REFERENCES:

- 1. FOR LEGEND AND ABBREVIATIONS, SEE DWG, NO. LE-1.
- 2. FOR GENERAL NOTES, SEE DWG, NOS, G-1 TO G-3.
- 3. FOR GENERAL PLAN, SEE DWG. NO. R023-S1.
- 4. FOR EXISTING PLAN, SEE DWG. NO. R023-S2.
- 5. FOR PROPOSED PLAN, SEE DWG, NO. R023-S5.

		CITY OF NI TMENT OF T DIVISION OF	RANS	PORT	ATION
	NYS P.I.N. NO.			FED. A	ND PROJ. NO.
	NYC P.I.N. NO.	84115SIBF	934		
	CONTRACT NO. HBRC039			CD NO	D. J73
E ONLY	REHABI	LITATION / F OF EIGHT (CTION
	BOROUGH OF S	STATEN ISLAND		B.I.N.	R-00023
	C.I.P.	CULVERT REI	NFORCIN	IG DET	AILS
LAND SURVEYOR, TO SURVEYOR SHALL STAMP	DWG NO.	SCALE	DAT	'E	SHEET NO.
SURVEYOR SHALL STAMP	R023-S12	1/4" = 1'-0"	SEPT.		98
	1			0.110	

DRAWING NO. : R17 OF R25



SHEET NO.	TOTAL SHEETS	
99	209	

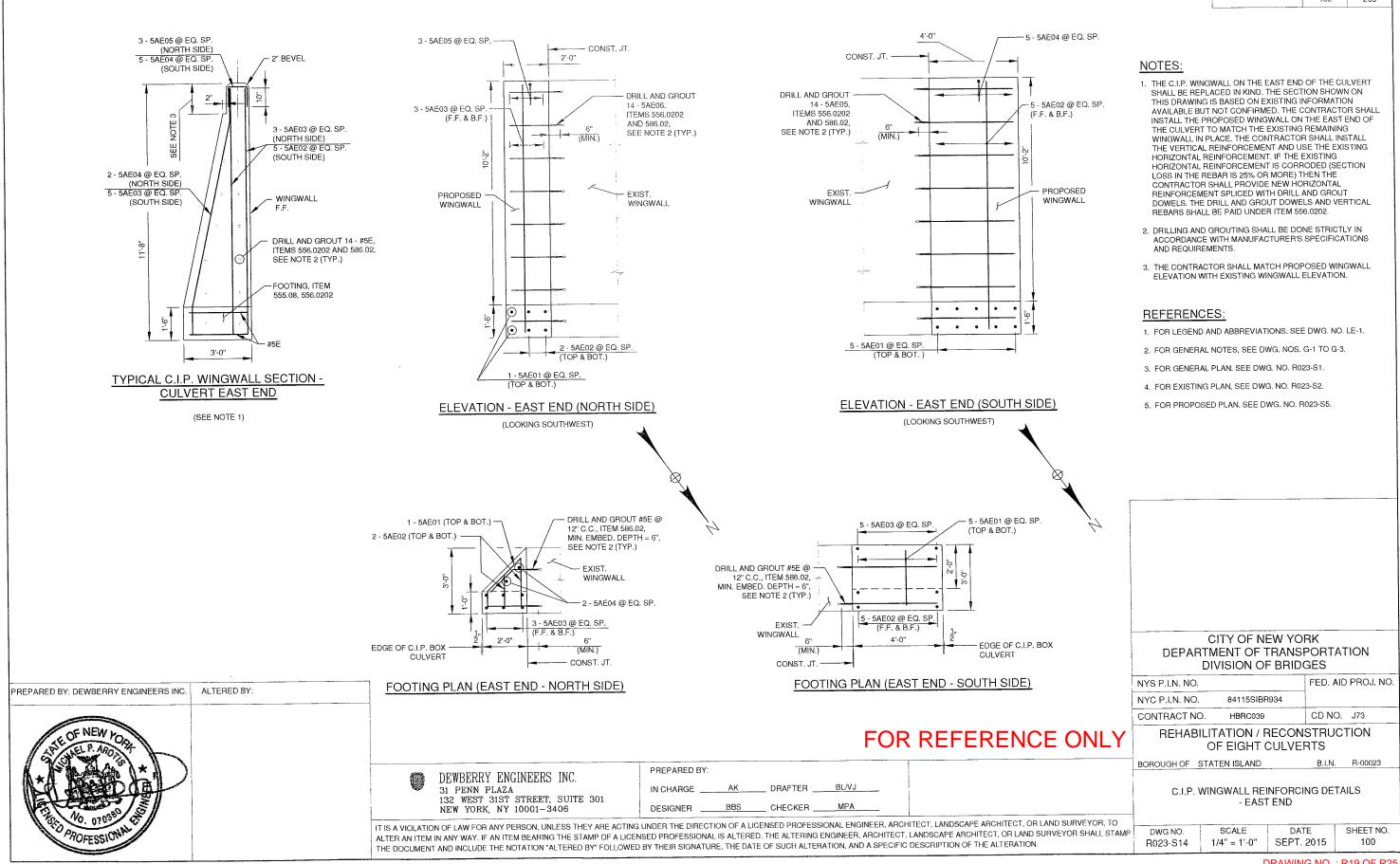
REFERENCES:

- 1. FOR LEGEND AND ABBREVIATIONS, SEE DWG, NO. LE-1.
- 2. FOR GENERAL NOTES, SEE DWG, NOS, G-1 TO G-3.
- 3. FOR GENERAL PLAN, SEE DWG, NO. R023-S1.
- 4. FOR EXISTING PLAN, SEE DWG. NO. R023-S2.
- 5. FOR PROPOSED PLAN, SEE DWG, NO. R023-S5.

FOR REFERENCE ONLY

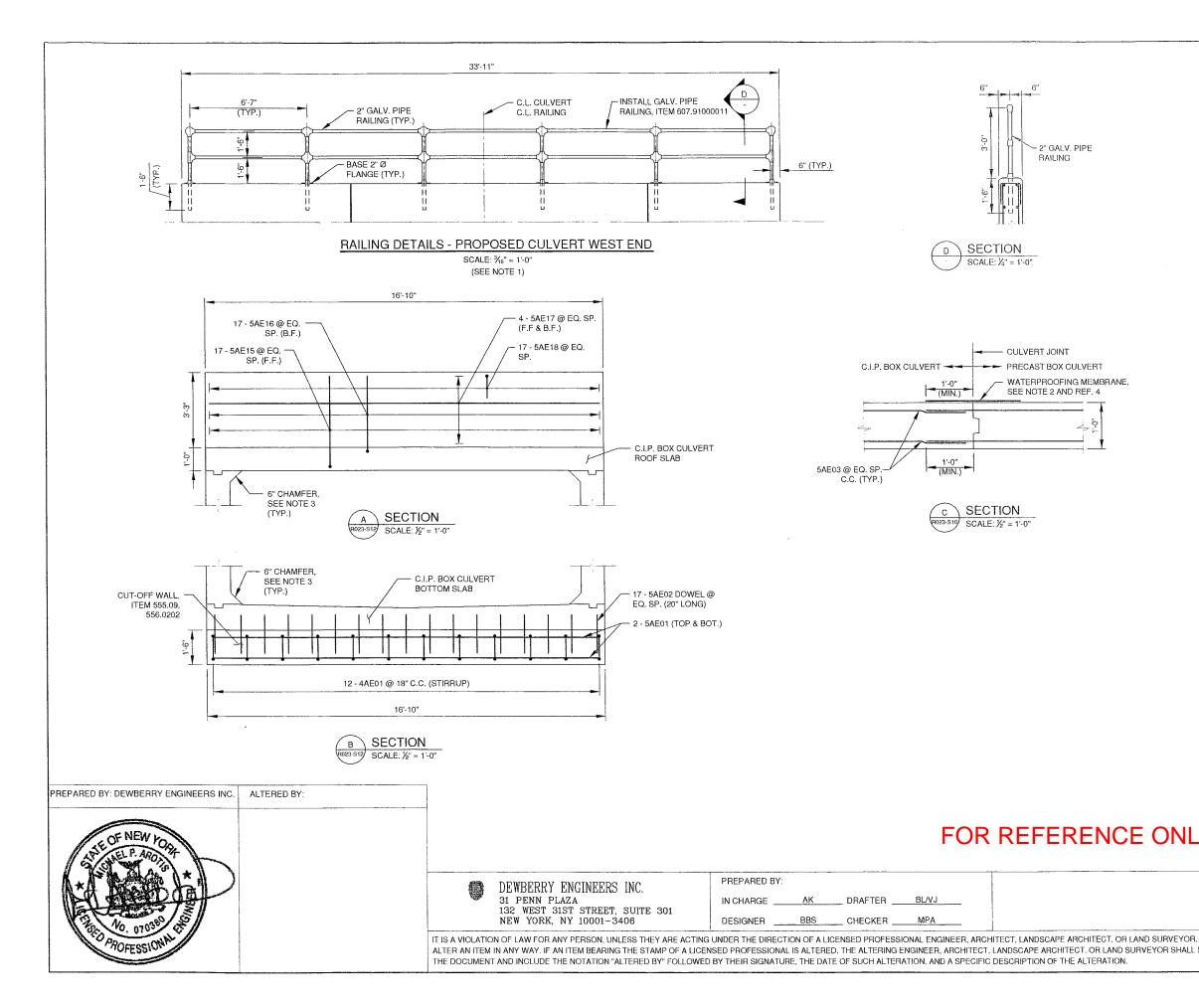
	DEPAF	CITY OF NI TMENT OF T DIVISION OI	FRANSI	PORT	ATION	
	NYS P.I.N. NO.			FED. A	ND PROJ. NO.	
	NYC P.I.N. NO.	84115SIBF	8934			
	CONTRACT NO	D. HBRC039		CD NO). J73	
	REHABILITATION / RECONSTRUCTION OF EIGHT CULVERTS					
	BOROUGH OF	STATEN ISLAND		B.I.N.	R-00023	
	C.I.P. \	WINGWALL REI - WES		NG DE	FAILS	
VEYOR, TO SHALL STAMP	DWG NO.	SCALE	DAT	E	SHEET NO.	
	R023-S13	1/4" = 1'-0"	SEPT.	2015	99	

DRAWING NO. : R18 OF R25



SHEET NO.	TOTAL SHEETS
100	209

DRAWING NO. : R19 OF R25

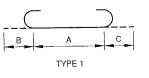


				SHEET NO.	TOTAL SHEETS
				101	209
	NOTES:				
	EXISTING RA	ACTOR SHALL MEA ILING COMPONEN PROPOSED RAILI ENSIONS.	TS PRIOR	TO REMO	OVAL AND
	MEMBRANE	ACTOR SHALL PRO IN ACCORDANCE I ICAL DETAIL SHEE	NITH THE	GUIDELIN	
		ER OF CAST-IN-PL			TION AND
	REFEREN	CES:			
	1. FOR LEGEN	O AND ABBREVIAT	IONS, SEE	DWG. NO	D. LE-1.
	2. FOR GENER	AL NOTES, SEE DV	VG. NOS.	G-1 TO G-	3.
	3. FOR PROPO	SED PLAN, SEE DI	NG. NO. R	023-S5.	
		PROORF MEMBRA	NE DETAI	LS, SEE D	WG. NO.
	SD-3.				
ſ					
		CITY OF N			
	DEPAR	TMENT OF T			TION
	NYS P.I.N. NO.	DIVISION OF	יטוחס -		ID PROJ. NO.
	NYC P.I.N. NO.	84115SIBF	1934	1 20. 1	1011100.110.
\mathbf{v}	CONTRACT NO			CD NC). J73
<u> </u>	REHABI	LITATION / F	RECON	STRU	CTION
		OF EIGHT (CULVE	RTS	
	BOROUGH OF	STATEN ISLAND		B.I.N.	R-00023
		MISCELLANE	DUS DET	TAILS	
, TO STAMP	DWG NO.	SCALE	DAT	Ē	SHEET NO.
STAWP	R023-S15	AS SHOWN	SEPT.		101

DRAWING NO. : R20 OF R25

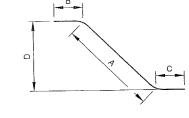
MARK	BAR		DIME	ENSION (F	T)		NO OF	WEIGHT	REMARKS
	TY PE	A	B	С	D	TOTAL	BAR	(L8)	
		FOOTING -	NOR IH SIL	<u>)</u>		6.500	20	136	
5AE01 5AE02	1	6.500 9.000				9.000	16	151	
5AE03	2	3.417	1.000			4,417	10	47	
6AE01	2	5.250	1.000			6.250	10	94	*****
VESTWI	NGWALL	STEM - NO	RTH SIDE					T 470 [
5AE04	1	9.000				9.000	19	179	
5AE05	1	10.583				10.583	10 10	111	
6AE02	2	10.583 0.667	0.833	0.833		2.333	10	25	U-BAR
5AE06	4	0.001	0.030	0.000		2.000		4	
NEST WI	NGWALL	FOOTING -	SOUTH SI	DE					
5AE01	4	6.821	1.750		4,750	8.571	2	18	
5AE02	1	6.821				6.821	2	15	MADIEC 35 55
5AE03	1	4.000				4.000	10	42	VARIES 2.5 - 5.5
5AE04		6.500				6.500	6 10	41	VARIES 2 - 6
5AE05	1	4.000				7.000	6	44	
5AE06 5AE07	1	3.417	1.000			4,417	8	37	
6AE01	2	5.250	1.000	†		6.250	8	76	
	NGWALL	STEM - SC	JUTH SIDE			7000	1 40	400	······································
5AE08	1	7.000				7.000	19	139 89	
5AE09	1	10.583	<u> </u>			10.583 10.583	8	128	
6AE02	1	10 583 0.667	0.833	0.833		2.333	8	20	U-BAR
5AE 10	2	0.007	0.000	0.000		2.000	<u> </u>		
EASTWI	NGWALL	FOOTING 8	STEM - N	ORTH SIDE	E (2 LONG)			
5AE01	4	2.121	0.750		1.500	2.871	2	6	
5AE02	1	1.875				1,875	4	8	VARIES 1.2 - 2.25
5AE03	1	11.250				11.250	6	71	VARIES 8 549 - 8 66
5AE04	4	8.606	1.250	1.500	1.792	11.356	2	24 8	U-BAR
5AE05	2	0.667	0.833	0.833		2.333		35	0-D/ tr
		0 0 0 0 0							DOWEL
5AE06	1	2.333			L	2,300	14	33	DOWEL
			3 STEM - S	OUTH SIDE	E (4' LONG		1 14		DOWEL
		2.333 FOOTING (2.560	B STEM - S	OUTH SIDI	E (4' LONG) 2.500	10	27	DOWEL
EASTWI	NGWALL	FOOTING (2.560 11.250) 2.500 11.250	10	27 118	DOWEL
EAST WI 5AE01 5AE02 5AE03	NGWALL 1 1 4	FOOTING (2.500 11.250 8.662	1.250	1.500	E (4' LONG 1.792) 2.500 11.250 11.412	10 10 5	27 118 60	
EAST WI 5AE01 5AE02 5AE03 5AE04	NGWALL 1 1 4 2	FOOTING (2.500 11.250 8.662 0.667) <u>2,500</u> <u>11,250</u> <u>11,412</u> <u>2,333</u>	10 10 5 5	27 118 60 13	U-BAR
EAST WI 5AE01 5AE02 5AE03	NGWALL 1 1 4	FOOTING (2.500 11.250 8.662	1.250	1.500) 2.500 11.250 11.412	10 10 5	27 118 60	
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05	NGWALL 1 1 4 2 1	FOOTING 2.500 11.250 8.662 0.667 4.333	1.250 0.833	1.500) <u>2,500</u> <u>11,250</u> <u>11,412</u> <u>2,333</u>	10 10 5 5	27 118 60 13	U-BAR
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E	NGWALL 1 1 4 2 1 ND - C.I.F	FOOTING 2,500 11,250 8,662 0,667 4,333 CULVERT	1.250 0.833	1.500) <u>2,500</u> <u>11,250</u> <u>11,412</u> <u>2,333</u>	10 10 5 5	27 118 60 13	U-BAR DOWEL
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05	NGWALL 1 1 4 2 1	FOOTING 2.500 11.250 8.662 0.667 4.333	1.250 0.833	1.500) 2.500 11.250 11.412 2.333 4.333	10 10 5 5 14 4 12	27 118 60 13 64 69 39	U-BAR DOWEL VERT. STIRRUP
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE01	NGWALL 1 1 4 2 1 ND - C.I.F	FOOTING (2.500 11.250 8.662 0.667 4.333 CULVERT 16.500	1.250 0.833	1.500 0.833) 2.500 11.250 11.412 2.333 4.333 16,500	10 10 5 5 14 4	27 118 60 13 64 64	U-BAR DOWEL
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE01 4AE01 5AE02	NGWALL 1 1 4 2 1 ND - C.I.F 1 3 1	FOOTING 2,500 11,250 8,662 0,667 4,333 CULVERT 16,500 1,000 1,667	1.250 0.833 - APRON 1.000	1.500 0.833 0.375		2 500 11.250 11.412 2.333 4.333 16,500 4.750	10 10 5 5 14 4 12	27 118 60 13 64 69 39	U-BAR DOWEL VERT. STIRRUP
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE01 4AE01 5AE02 WEST E	NGWALL 1 1 4 2 1 ND - C.I.F 1 3 1 ND - C.I.F	FOOTING 2 2,500 11,250 6,662 0,667 4,333 CULVERT 16,500 1,000 1,667 2, CULVERT	1.250 0.833 - APRON 1.000	1.500 0.833 0.375		2 500 11.250 11.412 2.333 4.333 16.500 4.750 1.667	10 10 5 5 14 4 12 17	27 118 60 13 64 69 39 30 30	U-BAR DOWEL VERT. STIRRUP VERT. DOWEL
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE01 4AE01 5AE02 WEST E 5AE03	NGWALL 1 1 4 2 1 ND - C.I.F 1 3 1 ND - C.I.F 1 1 ND - C.I.F	FOOTING (2.560) 11.250 8.662 0.667 4.333 CULVERT 16.500 1.060 1.667 CULVERT 12.458	1.250 0.833 - APRON 1.000	1.500 0.833 0.375		2 500 11.250 11.412 2 333 4 333 16,500 4,750 1.667 12,458	10 10 5 5 14 4 12 17 26	27 118 60 13 64 69 39 30 30	U-BAR DOWEL VERT. STIRRUP VERT. DOWEL TRANS. 6'-6'' TO 18'-5''
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE01 4AE01 5AE02 WEST E 5AE03 5AE03 5AE04	NGWALL 1 1 2 1 ND - C.I.F 1 ND - C.I.F 1 1 1 1 1	FOOTING 2.560 11.250 8.662 0.667 4.333 CULVERT 16.500 1.000 1.667 CULVERT 12.458 8.750	1.250 0.833 - APRON 1.000	1.500 0.833 0.375		2 500 11.250 11.412 2.333 4.333 16.500 4.750 1.667 1.2458 8.750	10 10 5 5 14 14 12 17 17 26 19	27 118 60 13 64 89 39 30 30 339 174	U-BAR DOWEL VERT. STIRRUP VERT. DOWEL
EAST W 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE01 4AE01 5AE02 WEST E 5AE03 5AE04 7AE01	NGWALL 1 1 4 2 1 ND - C.I.F 3 1 ND - C.I.F 1 1 1 1	FOOTING 8 2.560 11.250 8.662 0.667 4.333 CULVERT 16.500 1.060 1.667 CULVERT 12.458 8.750 8.750	1.250 0.833 - APRON 1.000 - BOTTOM	1.500 0.833 0.375		2 500 11.250 11.412 2 333 4 333 16,500 4,750 1.667 12,458	10 10 5 5 14 4 12 17 26	27 118 60 13 64 69 39 30 30	U-BAR DOWEL VERT. STIRRUP VERT. DOWEL TRANS. 6'-6'' TO 18'-5'' LONG. BOT. VARIES
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE04 5AE02 WEST E 5AE04 5AE04 5AE04 5AE05	NGWALL 1 1 4 2 1 ND - C.I.F 1 1 1 1 4 4 4 4 4 4 4 4 4 4 4 4 4	FOOTING 8 2,500 11,250 8,662 0,667 4,333 9,CULVERT 16,500 1,060 1,667 9,CULVERT 12,458 8,750 8,750 1,000	1.250 0.833 - APRON 1.000 - BOTTOM 0.583 1.000	1.500 0.833 0.375	1.792	2 500 11.250 11.412 2.333 4.333 16.500 1.667 1.667 1.2458 8.750 9.916	10 10 5 5 14 4 12 17 26 19 35	27 118 60 13 64 69 39 30 30 339 174 711	U-BAR DOWEL VERT. STIRRUP VERT. DOWEL TRANS. 6'-6" TO 18'-5" LONG. BOT. VARIES LONG. TOP VARIES SOUTH CORNER NORTH CORNER HOOM
EAST W 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE01 4AE01 5AE02 WEST E 5AE03 5AE04 7AE01	NGWALL 1 1 1 4 2 1 1 1 1 1 ND - C.I.F 1 1 1 1 1 1 1 1 1 1 1 1 1	FOOTING 8 2.560 11.250 8.662 0.667 4.333 CULVERT 16.500 1.060 1.667 CULVERT 12.458 8.750 8.750	1.250 0.833 - APRON 1.000 - BOTTOM	1.500 0.833 0.375 1 SLAB	1.792	2 500 11.250 11.250 11.412 2 333 4 333 4 333 16.500 4 750 1.667 12 458 8 750 9 916 2 000	10 10 5 5 14 4 12 17 17 26 19 35 2 2 2 2 3	27 118 60 13 64 89 39 30 339 174 7/11 5 9 102	U-BAR DOWEL VERT. STIRRUP VERT. DOWEL TRANS. 6-6" TO 18'-5" LONG. BOT. VARIES LONG. BOT. VARIES SOUTH CORNER NORTH CORNER HOOP SOUTH SIDE (TOP)
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE01 4AE01 5AE02 WEST E 5AE03 5AE04 7AE01 5AE05 5AE06	NGWALL 1 1 4 2 1 1 1 1 1 1 ND - C.I.F 1 1 1 1 1 1 1 4 5	FOOTING (2.500 11.250 8.662 0.667 4.333 CULVERT 16.500 1.000 1.667 CULVERT 12.458 8.750 8.750 8.750 8.750 1.000 1.500	1.250 0.833 - APRON 1.000 - BOTTOM 0.583 1.000	1.500 0.833 0.375 1 SLAB	1.792	2 500 11.250 11.250 11.412 2.333 4.333 16.500 4.750 1.667 12.458 8.750 9.916 2.000 4.292	10 10 5 5 14 14 12 17 17 28 19 35 2 2 2 3	27 118 60 13 64 69 39 30 30 339 174 711 5 9	U-BAR DOWEL VERT. STIRRUP VERT. DOWEL TRANS. 6'-6" TO 18'-5" LONG. BOT. VARIES LONG. TOP VARIES SOUTH CORNER NORTH CORNER HOOM
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE01 4AE01 5AE02 WEST E 5AE03 5AE04 7AE01 5AE06 5AE06 7AE03	NGWALL 1 1 4 2 1 ND - C.I.F 1 3 1 ND - C.I.F 1 1 1 4 5 1	FOOTING 2.560 11.250 8.662 0.667 4.333 CULVERT 16.500 1.000 1.667 CULVERT 12.458 8.750 8.750 1.000 1.500 1.500 1.500	1.250 0.833 - APRON 1.000 - BOTTOM 0.583 1.000	1.500 0.833 0.375 1 SLAB	1.792	2 500 11.250 11.250 11.412 2.333 4.333 16.500 4.750 1.667 1.2458 8.750 9.916 2.000 4.292 16.500	10 10 5 5 14 14 12 17 17 28 19 35 2 2 2 3	27 118 60 13 64 89 39 30 339 174 7/11 5 9 102	U-BAR DOWEL VERT. STIRRUP VERT. DOWEL TRANS. 6-6" TO 18'-5" LONG. BOT. VARIES LONG. BOT. VARIES SOUTH CORNER NORTH CORNER HOOP SOUTH SIDE (TOP)
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE01 4AE01 5AE02 WEST E 5AE03 5AE04 7AE01 5AE06 5AE06 7AE03	NGWALL 1 1 4 2 1 ND - C.I.F 1 3 1 ND - C.I.F 1 1 1 4 5 1	FOOTING 2.560 11.250 8.662 0.667 4.333 CULVERT 16.500 1.000 1.667 CULVERT 12.458 8.750 8.750 1.000 1.500 1.500 1.500	1.250 0.833 - APRON 1.000 - BOTTOM 0.583 1.000	1.500 0.833 0.375 1 SLAB	1.792	2 500 11.250 11.250 11.412 2.333 4.333 16.500 4.750 1.667 1.2458 8.750 9.916 2.000 4.292 16.500	10 10 5 5 14 14 12 17 17 28 19 35 2 2 2 3	27 118 60 13 64 89 39 30 339 174 7/11 5 9 102	U-BAR DOWEL VERT. STIRRUP VERT. DOWEL TRANS. 6-6" TO 18'-5" LONG. BOT. VARIES LONG. BOT. VARIES SOUTH CORNER NORTH CORNER HOOP SOUTH SIDE (TOP)
EAST WI 5AE01 5AE02 5AE03 5AE04 5AE05 WEST E 5AE01 5AE01 5AE02 WEST E 5AE03 5AE04 7AE01 5AE05 5AE06 7AE03	NGWALL 1 1 4 2 1 ND - C.I.F 1 3 1 ND - C.I.F 1 1 1 4 5 1	FOOTING 2.560 11.250 8.662 0.667 4.333 CULVERT 16.500 1.000 1.667 CULVERT 12.458 8.750 8.750 1.000 1.500 1.500 1.500	1.250 0.833 - APRON 1.000 - BOTTOM 0.583 1.000	1.500 0.833 0.375 1 SLAB	1.792	2 500 11.250 11.250 11.412 2.333 4.333 16.500 4.750 1.667 1.2458 8.750 9.916 2.000 4.292 16.500	10 10 5 5 14 14 12 17 17 28 19 35 2 2 2 3	27 118 60 13 64 89 39 30 339 174 7/11 5 9 102	U-BAR DOWEL VERT. STIRRUP VERT. DOWEL TRANS. 6-6" TO 18'-5" LONG. BOT. VARIES LONG. BOT. VARIES SOUTH CORNER NORTH CORNER HOOP SOUTH SIDE (TOP)

FOOTING TOTAL EPOXY COATED BAR, ITEM 556.0202	-	960	LB
WING WALL TOTAL EPOXY COATED BAR, ITEM 556 0202	=	1068	LB
APRON TOTAL EPOXY COATED BAR, ITEM 556.0202	=	138	LB
BOTTOM SLAB TOTAL EPOXY COATED BAR. ITEM 556.0202	Ξ	1392	LB

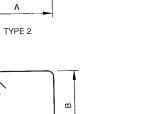


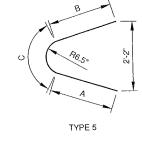
Α

А TYPE 3



TYPE 4





-		

FOR REFERENCE PREPARED BY: DEWBERRY ENGINEERS INC. ALTERED BY: PREPARED BY: DEWBERRY ENGINEERS INC. IN CHARGE AK ___ DRAFTER ____ SB_ 31 PENN PLAZA 132 WEST 31ST STREET, SUITE 301 NEW YORK, NY 10001-3406 MPA BBS __ CHECKER _ DESIGNER IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT. OR L ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SU THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

SHEET NO.	TOTAL SHEETS
 102	209

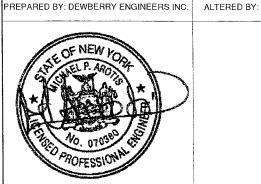
REFERENCES:

- 1. FOR LEGEND AND ABBREVIATIONS, SEE DWG. NO. LE-1.
- 2. FOR GENERAL NOTES, SEE DWG, NOS. G-1 TO G-3.
- 3. FOR GENERAL PLAN, SEE DWG. NO. R023-S1.
- 4. FOR EXISTING PLAN, SEE DWG. NO. R023-S2.
- 5. FOR PROPOSED PLAN, SEE DWG. NO. R023-S5.
- 6. FOR PROPOSED ELEVATION AND TYPICAL SECTION, SEE DWG. NOS. R023-S6 AND R023-S7.
- FOR C.I.P. CULVERT AND WINGWALL REINFORCEMENT, SEE DWG. NOS. R023-S12 TO R023-S14.

	CITY OF NEW YORK DEPARTMENT OF TRANSPORTATION DIVISION OF BRIDGES						
	NYS P.I.N. NO.		FED. A	ID PROJ. NO.			
ONLY	NYC P.I.N. NO.	84115SIBR	934				
	CONTRACT NO			CD NC			
	REHABI	LITATION / F OF EIGHT (CTION		
	BOROUGH OF	STATEN ISLAND		B.I.N.	R-00023		
		BAR L	IST - I				
LAND SURVEYOR, TO SURVEYOR SHALL STAMP	DWG NO. R023-S16	SCALE N.T.S.	DAT SEPT. 2	- 1	SHEET NO. 102		

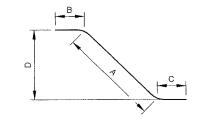
DRAWING NO. : R21 OF R25

BAR	BAR TY PE			ENSION (TOTAL	NO OF	WEIGHT	REMARKS
MARK	TIPE	A	В	С	D	TOTAL	BAR	(LB)	
ESTEN) - C.I.P.	CULVERT	- SIDE WA	LLS					
5AE07	1	5 667				5.667	50	296 000	INNER REBARS
5AE08	Z	5 667	2.083			7 750	50	405.000	OUTER REBARS
5AE09	1	6.943				6.943	10	73.000	AVG. SOUTH WALL
5AE 10	1	17.917				17.917	10	188.000	AVG_NORTH WALL
5AE 19	2	3.041	2 083			5.124	50	268.000	OUTER REBARS
5AE20	1	2.625				2.625	50	138 000	INNER REBARS
5AE23	1	2.750	ll			2.750	56	161.000	CHAMFER
ESTEN	n.c.e	CHI VERT	- ROOF SL	AR					
5AE11	1	12,458		<u> </u>		12.458	26	339.000	TRANS 6'-6" TO 18'-5"
5AE 12	1	8 750				8 750	19	174,000	LONG.TOP VARIES
7AE02	1	8,750	0.583	0.583		9.916	35	711.000	LONG. BOT. VARIES
5AE 13	4	1 000	1 000		0.750	2.000	2	5.000	SOUTH CORNER
5AE14	5	1.500	1.500	1.292		4.292	2	9.000	NORTH CORNER
7AE04	1	16.500				16.500	3	102.000	SOUTH SIDE (BOT)
5AE22	1	16.500				16.500	3	52.000	SOUTH SIDE (TOP)
HECTEN		CULVEDT	UEADWA	111					
5AE15	0 - G.I.P. 1	3.917	- HEADWA	ν <u></u> .	1	3.917	17	70.000	VERT FRONT BAR
5AE 15	2	3.750	1 417			5.167	17	92.000	VERT BACK DOWEL
5AE 17	1	16.500				16.500	8	138.000	LONGITUDINAL
5AE18	2	0.667	0.833	0 833		2.333	17	42.000	U-BAR
			·						
ASTEN) - C.I.P.	CULVERT	- APRON						
5AE01	1	16,500				16.500	4	69.000	
4AE01	3	1.000	1.000	0.375		4.750	12	39.000	VERT. STIRRUP
5AE02	1	1.667	1			1.667	17	30.000	VERT. DOWEL
ACTEN		CHEVEDT	POTTON	CEAD					
5AE03	J-0.1P	11.958	- BOTTOM	SLAB		11.958	26	325,000	TRANS 6'-1" TO 17'-10"
5AE03	1	8,750	··· ··			8.750	19	174.000	LONG BOT VARIES
7AE01	1	8,750	0.583	0.583		9916	35	711.000	LONG TOP VARIES
5AE05	4	1.000	1.000	0.000	0.750	2.000	2	5,000	NORTH CORNER
5AE06	5	1.500	1.500	1.292		4.292	2	9.000	SOUTH CORNER HOOK
7AE03	1	16.500				16.500	3	102.000	NORTH SIDE (TOP)
5AE21	1	16.500				16.500	3	52,000	NORTH SIDE (BOT.)
			- SIDE WA	LLS		· · · · · · · · · · · · · · · · · · ·		1	
5AE07	1	5.667				5.667	50	296.000	INNER REBARS
5AE08	2	5.667	2.083	<u> </u>		7.750	50	405.000	OUTER REBARS
5AE09	1	6.943		<u> </u>	<u> </u>	6.943	10	73.000	AVG_SOUTH WALL AVG_NORTH WALL
5AE10 5AE19	2	17.917	2.083			17.917	50	268.000	OUTER REBARS
5AE20	1	2 625	2.003	ļ		2.625	50	138.000	INNER REBARS
5AE23	1	2.750				2,750	56	161.000	CHAMFER
er telev	L	1 2.7 63	_l	·		1			
EASTEN	D - C.I P	CULVERT	- ROOF SI	.AB					
5AE11	1	11.958	1	T		11.958	26	325.000	TRANS. 6'-1" TO 17'-10"
5AE12	1	8.750				8.750	19	174.000	LONG, TOP VARIES
7AE02	1	8.750	0.583	0.583	1	9.916	35	711.000	LONG BOT VARIES
5AE13	4	1.000	1.000		0.750	2.000	2	5.000	NORTH CORNER
	5	1.500	1.500	1.292	ļ	4.292	2	9.000	SOUTH CORNER
5AE14	1	16.500		<u> </u>	<u> </u>	16.500	3	102.000	NORTH SIDE (BOT.) NORTH SIDE (TOP)
5AE14 7AE04		16.500			I	16,500	3	52.000	NUKIN SIDE (IUP)
5AE14	1								
5AE14 7AE04 5AE22		CULVERT	- HEADWA	ALL				T ma ana T	
5AE14 7AE04 5AE22 EAST EN	D - C.I.P		- HEADW/		1	3 9 1 7	17	/0.000	VERT, FRONT BAR
5AE14 7AE04 5AE22		CULVERT 3.917 3.750	- HEADW/			3 917 5.167	17	70.000	VERT. FRONT BAR VERT. BACK DOWEL
5AE14 7AE04 5AE22 EAST EN 5AE15	D - C.I.P	3.917	T						
5AE14 7AE04 5AE22 EAST EN 5AE15 5AE16	D - C.I.P 1 2	3.917 3.750	T	0.833		5,167	17	92,000	VERT. BACK DOWEL

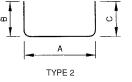


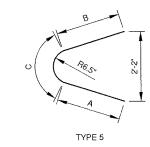
BOTTOM SLAB TOTAL EPOXY COATED BAR, ITEM 556.0202	=	1378	LB	
SIDEWALLS TOTAL EPOXY COATED BAR, ITEM 556 0202	æ	3058	LB	
ROOF SLAB TOTAL EPOXY COATED BAR, ITEM 556.0202	=	2770	LB	
HEADWALL TOTAL EPOXY COATED BAR, ITEM 556.0202	=	684	LB	
APRON TOTAL EPOXY COATED BAR, ITEM 556.0202	=	138	1.8	

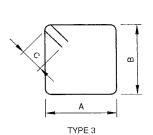
B A C











FOR REFERENCE ONLY

0	DEWBERRY ENGINEERS INC.	PREPARED BY:
	31 PENN PLAZA 132 WEST 31ST STREET, SUITE 301	IN CHARGE AK DRAFTERSB
	NEW YORK. NY 10001-3406	DESIGNER BBS CHECKER MPA

				SHEET NO.	TOTAL SHEETS
				103	209
		L			<u>«</u>
	REFERENC	CES:			
		AND ABBREVIA	TIONS. SEE	DWG. NO. I	_E-1.
	2. FOR GENER/	AL NOTES, SEE D	WG. NOS. (G-1 TO G-3.	
	3, FOR GENER	AL PLAN, SEE DW	/G. NO. R02	3-S1.	
		IG PLAN, SEE DW			
		SED PLAN, SEE D			
		SED ELEVATION			
		6 AND R023-S7.	AND THEO	42 320 101	, SEE DWG.
		ULVERT AND WIN		INFORCEM	ENT, SEE
	DWG. NOS. F	R023-S12 TO R02	3-S14.		
		CITY OF N TMENT OF			
	DEPAR	DIVISION C			ION
\mathbf{v}	NYS P.I.N. NO.				PROJ. NO.
. Y	NYC P.I.N. NO.		B934	1 20.110	11100.110.
	CONTRACT NO			CD NO.	J73
		LITATION /			
		OF EIGHT			
	BOROUGH OF S				R-00023
				· ·	
		BAR	LIST - II		
YOR, TO IALL STAMP	DWG NO.	SCALE	DAT	E	SHEET NO.

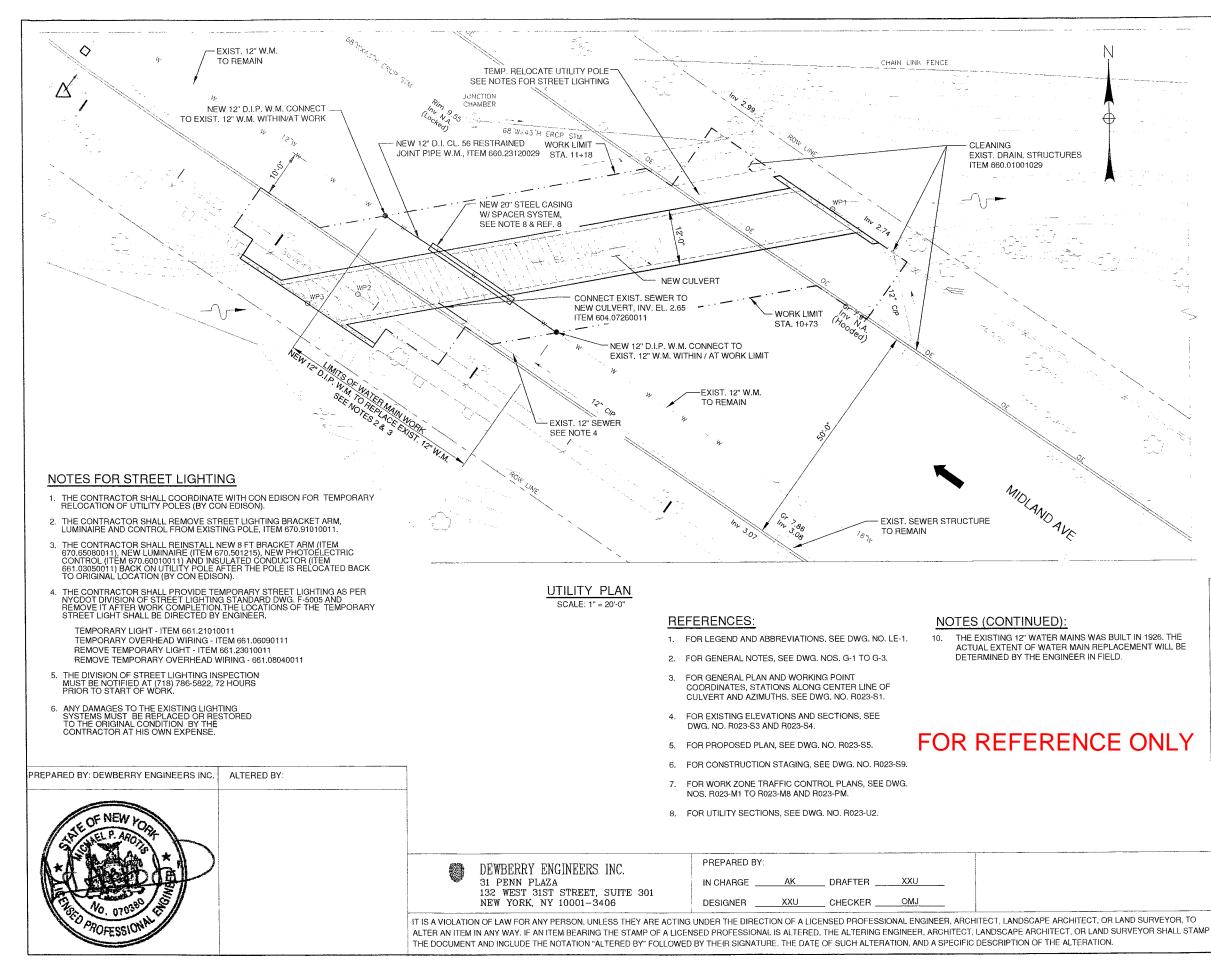
 DWG NO.
 SCALE
 DATE
 SHEET NO.

 R023-S17
 N.T.S.
 SEPT. 2015
 103

 DRAWING NO. : R22 OF R25

		NO. SHEETS
		104 209
	Dewherry-Goodkind, Inc.	
	PROJECT LOCAL NAME: BIN R-00023 BORING NO. 8-2 SECTION: Midland Ave. between Boundary Ave. and Mason Ave., S.L. NY FIELD BORING NO.	
	SECTION. Middate Vieweek Council and any first and any fir	
	GROUND WATER ELEVATION	NOTES:
	BORING BY: Warren George DATE STARTED: 5-3-2006 0 Hr. Date: 24 Hr. Date:	
	INSPECTOR: J. Maiello DATE COMPLETED: 5-3-2006	1. THIS INFORMATION WAS PREPARED AND INTENDED FOR DESIGN AND ESTIMATE PURPOSES ONLY. ITS
	DEPTH CASING SAMPLE DEPTH Blows on Spoon REC. SOIL DESCRIPTION AND STRATIFICATION (m) (m) BLOWS NO. 0.6 6/12 (in.) (in.) (m)	PRESENTATION ON THE PLANS OR ELSEWHERE IS FOR THE
	Revert Hand augered to 4 ft.	PURPOSE OF PROVIDING INTENDED USERS WITH INFORMATION OBTAINED BY OBSERVATION DURING
		SUBSURFACE EXPLORATIONS PERFORMED UNDER THE
		ENGINEERING CONTRACT. THIS IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT
	4	INTERPRETATIONS OR JUDGEMENT OF THE CONTRACTOR.
	5 S-1 4 6 1 1 7" Red-brown c-f SAND, trace f Gravel, trace Silt (Class 6) 5	2. GENERAL SOIL STRATUM DESCRIPTION AND INDICATED
	1 1 S 2 6 8 3 4 16° Grav Clavev Sil T. trace f Sand (Class 5b)	BOUNDARIES ARE BASED ON AN ENGINEERING
	S-2 6 8 3 4 16" Gray Clayey SILT, trace f Sand (Class 5b)	INTERPRETATION OF ALL AVAILABLE SUBSURFACE
	S-3 8 10 2 3 5" SAME	NECESSARILY REFLECT THE ACTUAL VARIATION IN FIELD
		INTERPRETATIONS OF CONDITIONS ENCOUNTERED IN INDIVIDUAL BORINGS IS SHOWN ON THE BORING LOGS.
	S-4 10 12 6 5 16° Red-brown c-I SAND, little Silt, trace I Gravel (moist)	3. THE OBSERVED WATER LEVELS AND/OR CONDITIONS
	8 7 (Class 3b)	INDICATED ON THE BORING LOGS ARE AS RECORDED AT
	S-5 12 14 5 14* Red-brown c-f SAND, trace(+) f Gravel, trace Silt (moist) 6 14 (Class 3b) (Class 3b)	THE TIME OF EXPLORATION. ACTUAL WATER LEVELS MAY DIFFER FROM THE OBSERVED WATER LEVEL BECAUSE OF
	6 14 (Class 3b) 15 S-6 14 16 6 4 10" Red-brown c-f SAND, trace f Gravel, trace Silt (Class 3b)	LIMITATIONS IN THE NUMBER AND DURATION OF
		OBSERVATIONS AND WILL VARY WITH CHANGES IN CLIMATE AND RAINFALL
	S-7 16 18 7 8 12" SAME	
	9 9	
	S-8 18 20 10 6 14" SAME	
	20 8 6	REFERENCES:
		1. FOR LEGEND AND ABBREVIATIONS, SEE DWG. NO. LE-1.
		2, FOR GENERAL NOTES, SEE DWG. NOS. G-1 TO G-3.
	25 S-10 25 26.5 9 11 19 10" Red-brown c-f SAND, trace Silt (Class 3a)	3, FOR SOIL BORING LOCATION, SEE DWG. NO. R023-S1.
	30	
	S-11 30 31.5 10 14 19 10" SAME Bottom of Hole 31.5 ft.	
	35	
		1
	40	
		4
	design and estimate purposes. It is made available to authorized users only	
	Weight/type of Hammer on Drive Pipe - It is presented in good faith, but is not intended as a substitute for	
	Weight/type of Hammer on Split Barrel 140 lb. investigations, interpretation or judgment of such authorized users.	CITY OF NEW YORK
	Drop of Hammer on Drive Pipe Approximate Change in Strata	DEPARTMENT OF TRANSPORTATION
	Drop of Parimer of Spin Barrel Som	DIVISION OF BRIDGES
	Core Size 4 in Soil descriptions represent a field identification after D.M. Burmister Judison/BRANCH-Gestactarkew York CeV3526 Si Culverts 11 23, 66/8-2 R-00023 - US Avec	NYS P.I.N. NO. FED. AID PROJ. NO
PREPARED BY: DEWBERRY ENGINEERS INC. ALTERED BY:	unless otherwise noted.	NYC P.I.N. NO. 84115SIBR934
		CONTRACT NO. HBRC039 CD NO. J73
LE OF NEW POOL	SOIL BORING LOG FOR REFERENCE ONLY	REHABILITATION / RECONSTRUCTION OF EIGHT CULVERTS
AS AELP. ARON 44		
KSI BLAFT +	PREPARED BY:	BOROUGH OF STATEN ISLAND B.I.N. R-00023
At Mark hall	DEWBERRY ENGINEERS INC.	
121 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	132 WEST SIST STREET, SUITE 301	SOIL BORING LOG
Value S	NEW YORK, NY 10001-3406 DESIGNER BBS CHECKER MPA	4
17 18 / 10. 0103 · 6	VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO	DWG NO. SCALE DATE SHEET NO.
	A DESCRIPTION OF A DESC	R023-GT1 N.T.S. SEPT. 2015 104
THE C	ANTIEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED THOF ECONOMIC IS ALLED THE ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION. OCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE. THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.	
		DRAWING NO. : R23 OF R2

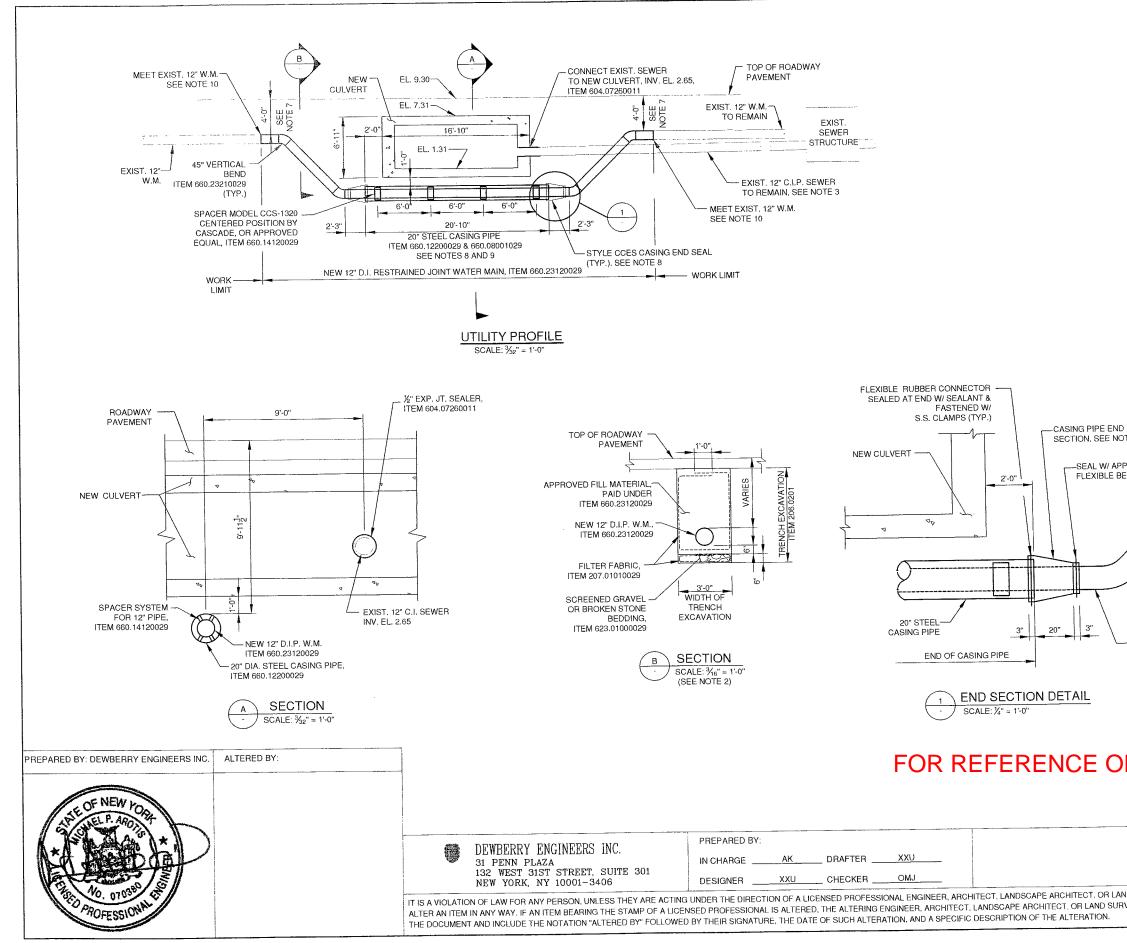
SHEET NO.	TOTAL SHEETS
104	209



 SHEET NO.	TOTAL SHEETS
 105	209

NOTES ALL WATERMAIN AND SEWER WORK SHALL BE PERFORMED IN ACCORDANCE WITH NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION, BUREAU OF WATER AND SEWER OPERATIONS (BWSO) STANDARDS, SPECIFICATIONS AND STANDARD DRAWINGS, THE LATEST VERSION. THE CONTRACTOR SHALL COORDINATE WITH NYCDEP TO FIELD VERIFY THE DEPTH TO THE EXISTING 12" WATER MAIN PRIOR TO NEW WATER MAIN INSTALLATION AND PERFORM EXCAVATION WITH HAND TOOLS ONLY WITHIN A 3-FOOT DISTANCE FROM THE EXISTING 12" WATER MAIN. 3. ALL NEW WATER MAINS TO BE RESTRAINED JOINT PIPE AND TO MEET RESTRAINED LENGTH REQUIREMENT WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN EXCAVATING AROUND THE EXISTING 12" C.I.P. SEWER AND SHALL TEMPORARILY SUPPORT IT DURING CONSTRUCTION. ANY DAMAGE TO THE EXISTING SEWER SHALL BE REPAIRED. BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE CITY. FLOW IN CULVERT MUST BE MAINTAINED DURING 5. CONSTRUCTION THROUGH TEMPORARY WATER DIVERSION. 6. ALL EXISTING UTILITIES TO REMAIN SHALL BE PROTECTED AND MAINTAINED DURING CONSTRUCTION. THE COVER OF EXISTING 12" WATER MAIN IS UNKNOWN. 7. CONTRACTOR SHALL USE THE DEPTH SHOWN FOR BID ESTIMATING PURPOSES ONLY. CASING SHALL BE INSTALLED FOR 12" WATER MAINS PASSING UNDER THE CULVERT. THE CONTRACTOR SHALL USE 3/8" THICK STEEL CASING PIPE WITH CASCADE CASING SPACER SYSTEM MODEL CCS-1320 OR APPROVED EQUAL. CASING SPACERS SHALL RESTRAIN WATER MAIN IN CENTER POSITION WITH SPACING 6 FT APART AS SHOWN. THE ENDS OF THE CASING SHALL BE SEALED USING CCES CASING END SEAL OR APPROVED EQUAL. THE COST OF END SEAL SHALL BE PAID UNDER ITEM 660.12200029. NO WATER MAIN JOINTS SHALL BE ALLOWED WITHIN THE CASING PIPE. THE CONTRACTOR SHALL ORDER A 25 FT LONG PIPE FOR WATER MAIN LOCATED UNDERNEATH OF THE BOX CULVERT. CITY OF NEW YORK DEPARTMENT OF TRANSPORTATION **DIVISION OF BRIDGES** NYS P.I.N. NO. FED. AID PROJ. NO. NYC P.I.N. NO. 84115SIBR934 CONTRACT NO. HBRC039 CD NO. J73 **REHABILITATION / RECONSTRUCTION** OF EIGHT CULVERTS BOROUGH OF STATEN ISLAND B.I.N. R-00023 UTILITY PLAN DWG NO. SCALE DATE SHEET NO 1" = 20'-0" SEPT. 2015 105 R023-U1

DRAWING NO. : R24 of R25



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				SHEET NO.	TOTAL SHEETS
				106	209
	NOTES: 1. THE ENDS OF THE CASING SHALL BE SEALED USING CCES CASING END SEAL OR APPROVED EQUAL. THE COST OF END SEAL SHALL BE PAID UNDER ITEM 660.12200029. 2. WATER MAIN INSTALLATION AS PER NYCDEP WATER MAIN STANDARD DRAWING NO. 44292-B-Z. REFERENCES:				
	 FOR UTILITY PLAN, PROFILE AND NOTES, SEE DWG. NO. R023-U1. 				
	NV23-U f.				
))TE 1					
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PROVED END					
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_12" D.I. W.M.					
-	CITY OF NEW YORK DEPARTMENT OF TRANSPORTATION				
	DIVISION OF BRIDGES				
NLY	NYS P.I.N. NO.				ID PROJ. NO
	NYC P.I.N. NO. 84115SIBR934				
		CONTRACT NO. HBRC039). J73
	REHABILITATION / RECONSTRUCTION				
	BODOLIOU OF -	OF EIGHT CULVERTS			
	BOROUGH OF STATEN ISLAND B.I.N. R-00023_UTILITY PROFILE AND SECTIONS				
	4				
ND SURVEYOR, TO	DWG NO.	SCALE		ATE	SHEET NO
	R023-U2	AS SHOWN		Г. 2015	106

DRAWING NO. : R25 OF R25



DIVISION OF INFRASTRUCTURE BUREAU OF DESIGN

VOLUME 3 OF 3

PROJECT ID: MIBBNC04A

CONSTRUCTION OF BEST MANAGEMENT PRACTICES **BMP NC- 6 BOUNDARY AVENUE AND BMP NC-15 LACONIA AVENUE**

TOGETHER WITH ALL WORK INCIDENTAL THERETO **BOROUGH OF STATEN ISLAND CITY OF NEW YORK**

Contractor

Dated _____, 20____,