

PROPOSAL

FOR

TAS 26-18A D215090

WEEDSPORT MAINTENANCE – CONSTRUCT MUNICIPAL
SEWER CONNECTION ON I-90, MILEPOST 304.20

BOOK 1 OF 1

THIS BOOK CONTAINS SPECIFICATIONS AND
BID PROPOSAL WORKSHEETS

SUBMITTED IN ACCORDANCE WITH THE NEW YORK STATE
DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS
OFFICIALLY ADOPTED JANUARY 1, 2026 EXCEPT AS MODIFIED
IN THE PLANS AND/OR PROPOSAL AND ANY CHANGES WITH
ARTICLE 2, TITLE 9 OF THE PUBLIC AUTHORITIES LAW.

LETTING OF
MARCH 11, 2026

BIDS DUE: 10:30 A.M.

BIDS OPEN: 11:00 A.M.



**Thruway
Authority**

200 Southern Blvd., Albany, NY 12209

NOTICE
TO
BIDDERS

In addition to the bid deposit requirement, this Proposal shall be accompanied by a Statement of Surety's Consent on the form furnished by the Authority. (See last page).

BIDDERS ARE SUBJECT TO LOSS OF BID DEPOSIT FOR FAILURE TO OBTAIN PROPER BONDING.

Thruway Authority Designated Contacts

Pursuant to NYS Finance Law Sections 139-j and 139-k, the following people are the designated contacts for this procurement process:

For all technical or engineering related questions:

- Nick Tario, RA
Project Designer
Nicholas.Tario@thruway.ny.gov

Or

- Dan Livermore, PE
Deputy Director, Structures Design Bureau
Dan.Livermore@thruway.ny.gov

Or

- Albert Mastroianni, PE
Director, Office of Design
Albert.Mastroianni@thruway.ny.gov

For all procurement contract process related questions:

- Kelly Galvin
Office of Procurement Services
Kelly.Galvin@thruway.ny.gov


Or

Jonathan Hill
Deputy Director of Capital and Contracts Management
Office of Procurement Services
Jonathan.Hill@thruway.ny.gov

For more information about NYS Finance Law Sections 139-j and 139-k, please see the New York State Thruway Authority Guidelines for Lobbying included in this Proposal.

NEW YORK STATE THRUWAY AUTHORITY

NOTICE TO BIDDERS

The Thruway Authority conducts public bid openings. Visitors who choose to hand deliver a bid and/or witness the bid opening are limited to one person. The Thruway Authority also uses  YouTube to broadcast its live bid openings. The link to live streams are available from the Thruway website here: <https://www.thruway.ny.gov/news/meetings/bid-openings.html>

or directly from  YouTube at:

<https://www.youtube.com/@nysthruwayauthority6263/streams>

Sealed bids must be hand delivered, or delivered by first class mail, USPS Express or Priority Mail, or overnight delivery service (e.g., FedEx, UPS) to the New York State Thruway Authority Headquarters Building, at the following address only: New York State Thruway Authority, 200 Southern Boulevard Albany, NY 12209.

Sealed bids should not be sent or delivered to any other address or location, and the Authority is not responsible for any late deliveries or misdirected bids.

Regardless of the delivery method selected, all sealed bids, whether paper or electronic form, must be delivered by 10:30 A.M. on Wednesday, March 11, 2026, where they will be opened publicly and read aloud at 11:00 A.M. Any bids sent or delivered to an address or location other than the one specified above, or received after this time, will not be accepted.

Contract TAS 26-18A / D215090 Weedsport Maintenance - Construct Municipal Sewer Connection on I-90, Milepost 304.20 in Cayuga County in accordance with the Plans and Specifications.

Your bid must be secured with either a Bid Bond or a Bid Deposit. A Bid Bond must be in the amount of 5% of the total bid and must be on the Authority's Bid Bond Form (TA-44117) which is included in the Proposal. A Bid Deposit must be a certified check or cashier's check made payable to the New York State Thruway Authority in the amount of **\$75,000.00**.

Plans, proposals, and information on how to download Contract Bid Data are available on the Authority's Website at www.thruway.ny.gov.

SPECIAL NOTE

The New York State Thruway Authority has discontinued the practice of reproducing and furnishing full-size and half-size plans to Contractors after contract award. Contractors shall be responsible for their own hard copies of plans and proposals at no additional cost to the Authority.

New York State Can Help You Secure Surety Bonding

The NYS Surety Bond Assistance Program (NYSBAP) provides technical and financial assistance to help contractors secure surety bonding. Contractors may be eligible to receive a guarantee of up to 30% to secure a surety bond line, bid bond or a performance and payment bond on State projects. Training is also available to contractors requiring technical support on how to become bond-ready. For more information and to fill out a NYSBAP application, visit <http://esd.ny.gov/BusinessPrograms/BondingAssistance.html> or contact Ms. Huey-Min Chuang at Empire State Development at 212-803-3238 or BAP@esd.ny.gov.

SPECIAL NOTE
REQUEST FOR INFORMATION (RFI)

A **request for information (RFI)** is a written process used to clarify a detail, specification, or note in the contract documents, provide notification of a possible error or omission, or request a minor modification due to possible unforeseen issues that may occur during construction.

However, during the period between project advertisement and award of contract, the prospective Bidder/Contractor shall submit all RFIs to the appropriate "Designated Contact" via e-mail, as listed elsewhere in the Proposal. The prospective Bidder's/Contractor's RFI shall be forwarded to the designated contact. The Bidder Request for Information, Thruway Authority form TA-W44137, can now be found on the Authority's website at:

<http://www.thruway.ny.gov/business/contractors/documents/ta-w44137.pdf>

This form should be filled out as completely and accurately as possible, numbered sequentially, as may be necessary, and saved in pdf format. Any supporting information that may help describe the issue more clearly, as well as any suggestions or recommendations for possible resolution, should also be provided. The form once complete shall be forwarded to the designated contact as instructed in the form.

Responses by the Authority to RFI's will be documented as Questions and Answers and posted for all bidders' reference, under each respective project, on the Thruway Authority's website at:

<http://www.thruway.ny.gov/business/contractors/documents/index.shtml>

Questions and Answers posted to the Authorities internet page may not be memorialized as amendments. Thus, prospective bidders are advised to check the Thruway Authority's website regularly before letting (or proposals are due), for Questions and Answers updates. Please be advised that RFI's submitted the week of the letting may not be answered.

Any changes to the Contract documents that result from an RFI will be addressed via an amendment.

New York State Thruway Authority

Contract No. TAS 26-18A

TABLE OF CONTENTS

PROJECT INFORMATION

Proposal Title Sheet	1
Pre-Award Notice / Contract Award	2
Pre-Bid Inspection / Preconstruction Meeting / Withdrawal of Bid	3
Work to Be Done	4
Schedule and Suspension of Work.....	5
Project Notes	9
Supplemental Information Available to Bidders	13

REVISIONS TO NYSDOT STANDARD SPECIFICATIONS

NYSTA Addendum to the Standard Specifications	14
-----------------------------------------------------	----

SPECIAL SPECIFICATIONS

Special Note — Special Specification Pay Item Numbers	15
Project Special Specifications.....	16

SPECIAL NOTES

Confidential Information.....	140
Control of Materials	143
Availability of Electronic Bid Data	144
Requirements for Contractor’s Utilization of Areas Outside of the Right-of-Way.....	145
Compliance with State Pollutant Discharge Elimination System (SPDES) Regulations	146
Embodied Carbon Reporting and Environmental Product Declarations (EPDs)	147
Diesel Emission Reduction Act (DERA) Regulatory Compliance	148
Green Construction Requirements	149
“Generator Knowledge” for Disposal of Treated Wood	152
Forest Insect Disease Control	153
Marker Relocation During Construction	155
Bird/Bat Waste Awareness	156
Fuel Price Adjustment	157

COMPLIANCE REQUIREMENTS AND PROCEDURES

Contract Goals for DBE/MWBE/SDVOB Participation	159
Chart A – Goals for Minority Participation	160
Minority/Women-Owned Business Enterprises (MWBEs).....	162
Reporting.....	163
Service-Disabled Veteran-Owned Business Enterprises (SDVOB)	166
Training Special Provisions	175
Workforce Utilization/Gross Wages Reporting	179
Reporting and Submission Schedules	181

STATE WAGE RATE INFORMATION

Wage Rates / Special Notice to Bidders in Relation to Overtime Dispensation 182
Special Note: State Prevailing Wage Rates 183
State Wage Rates 185

AGREEMENT, FAITHFUL PERFORMANCE BOND AND LABOR AND MATERIAL BOND

New York State Thruway Agreement..... 200
Faithful Performance Bond 224
Labor and Material Bond 230
(TAP-326 (11/2023) Appendix A – Standard Clauses for New York State
Thruway Authority Contracts 232

BID PROPOSAL

Itemized Proposal..... 237
Non-Collusive Bidding Certification..... 240
Iran Divestment Certification..... 241
MacBride Fair Employment Principals Certification 242
Certification Under Executive Order No. 16 Prohibiting State Agencies and
Authorities from Contracting with Businesses Conducting Business in Russia 243
Gender-Based Violence and the Workplace Certification 244
Signature Sheet..... 245
Bid Bonds 246
New York State Thruway Authority Guidelines for Lobbying..... 249
Disclosure of Prior Non-Responsibility Determinations 252
Certificate of Compliance (TA-W2111-9) 253
Amendment Acknowledgment 254
Statement of Surety’s Consent 255

PROJECT INFORMATION

NEW YORK STATE THRUWAY AUTHORITY
 DEPARTMENT OF ENGINEERING
 PROPOSAL ESTIMATE FOR
 WEEDSPORT MAINTENANCE – CONSTRUCT
 MUNICIPAL SEWER CONNECTION ON I-90
 AT
 MILEPOST 304.20
 IN THE
 SYRACUSE DIVISION
 OF THE
 NEW YORK STATE THRUWAY
 IN
 CAYUGA COUNTY

TYPE	LIMITS
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Municipal Sewer Connection

**Weedsport Section Maintenance
Facility on I-90, Milepost 304.20
Plus Advance Signing**

DEPOSIT REQUIRED \$75,000.00

COMPLETION DATE May 31, 2027

PRE-AWARD NOTICE

A Pre-Award Meeting has not been scheduled for this project. If a Pre-Award Meeting is deemed necessary, notice of the date and time will be provided.

To assist the Authority in its award process, the successful low bidder must furnish the following items upon request:

1. A current New York State Uniform Contracting Questionnaire (NYSUCQ) CCA-2 form must be on file;
2. A list of current contracts giving the firm or agency for which they are being performed, the name and phone number of someone therein familiar with the contractor's work, the contract amount, and percent of completion;
3. Pre-Award Project Schedule;
4. Documentation of the actions taken to comply with the Minority/Women's Business Enterprise Utilization goals (Non-Federal), or Disadvantaged Business Enterprise goals (Federal) as defined in the Proposal;
5. A "Schedule of Participation of Minority/Women's Business Enterprise" (Form TA-1022), or Disadvantaged Business Enterprise" (Form TA-1022F);
6. AAPHC-89 Approval to Subcontract.

Contract Documents will be supplied with the Authority's notice to the successful low bidder and must be executed and returned to the Authority within ten (10) days of receipt.

If a Pre-Award Meeting is held, it is requested that the Project Superintendent be present. The Contractor should be prepared to provide, upon request by the Authority, information regarding, among other things, the following:

1. Use of subcontractors, including who they will be and what items of work they will perform;
2. Suppliers and manufacturers;
3. Traffic control and safety;
4. Any anticipated problems that could affect the progression of the project.

CONTRACT AWARD

The award process cannot begin until the executed Contract Documents have been returned to the Authority and the successful Low Bidder has provided acceptable documentation with regard to his actions taken to comply with the M/WBE goals of this Contract or DBE Goals for Federally Aided Contracts.

ALL BIDDERS**PRE-BID INSPECTION**

The prospective bidder must have in its possession the Contract Plans/Proposal and a Work Permit for identification purposes when conducting a pre-bid inspection of the Thruway facility.

The prospective bidder shall inform the appropriate Division Point of Contact (listed below) prior to visiting the site and shall strictly comply with all instructions and requirements.

- **The New York State Thruway Authority Permit Application (TA-W5124)** and information on required insurance documentation is available at <http://www.thruway.ny.gov/business/realproperty/permits.html>. The application along with insurance documentation shall be submitted to the appropriate Thruway Authority Division Permit Coordinator as indicated on page 2 of the application. The fee is waived for this Pre-Bid Inspection.

<u>Division</u>	<u>Point of Contact</u>	<u>Phone</u>
New York	Timothy Mathew	(845) 918-2510
Albany	Michael Beaudet	(518) 471-5940
Syracuse	Jerrin George	(315) 438-2391
Buffalo	Nicholas Przybylski	(716) 635-6253

Provisions of Section 107-05, Equipment Safety Procedures, contained in the Contract Proposal shall apply to all Pre-Bid Inspectors and shall be strictly adhered to while performing the pre-bid inspection.

PRECONSTRUCTION MEETING

A Pre-Construction Meeting will be held prior to the start of construction. The time, date and location will be coordinated by the Division Construction Engineer who will provide this information to the successful low bidder as soon as it is available.

WITHDRAWAL OF BID

A Contractor may at any time, upon at least fifteen (15) days written notice, withdraw its bid on a date sixty (60) days after bid opening or thirty (30) days after the properly executed contract documents have all been received by the Authority, whichever is later. The bid bond, bid deposit, and/or performance bond shall remain in effect until such period of written notice has expired provided the contract has not been approved by the Office of the State Comptroller in the interim.

The Contractor and the Authority may agree in writing to extend the date upon which the bid may be withdrawn if the contract has not been approved by the Office of the State Comptroller.

WORK TO BE DONE

The following is a general description of the work to be done under this Contract. This list is intended to give the Contractor a general description of the work involved in this Contract and is not a complete listing of all work to be done. All work shall be done in accordance with the Contract Documents even though not specifically mentioned in this list.

1. Provide basic work zone traffic control according to the contract documents and as ordered by the Engineer.
2. Perform the work as identified in the plans and special specifications. This project will provide a new sewer connection from the Weedsport Maintenance Facility to the Town of Brutus's municipal line. In addition to the plumbing work, this project will involve earthwork, trenching, backfill, and directional drilling.
3. Restore disturbed areas and clean-up as directed by the Engineer.

SCHEDULE AND SUSPENSION OF WORK

The New York State Thruway is a limited access, high-speed, high-volume highway. Traffic shall be maintained in accordance with the *Manual on Uniform Traffic Control Devices (MUTCD)*, the *Work Zone Traffic Control Plans*, the *Standard Specifications* Section 619 and the following provisions:

A. WORK ZONE TRAFFIC CONTROL

1. Lane closures on the Thruway shall only be allowed in accordance with the traffic management table(s), available on the Thruway Authority website at <http://www.thruway.ny.gov/business/contractors/standard-sheets/index.shtml>, unless indicated otherwise in the contract documents. If more than one table is applicable to a work zone location, the most restrictive requirements shall be used. Traffic management tables do not guarantee lane closure availability; the requirements of Section B. *Work Restrictions* shall supersede these tables, when applicable.
2. Lane closures on the Thruway will be permitted for work site access, delivery of materials and equipment, and work operations. Personal vehicles will **NOT** be allowed to park along the Thruway or within lane closures on the Thruway at any time. During non-working hours, all equipment and materials shall be stored at least 30 feet from the edge of pavement (both mainline and ramps) or be protected by a physical barrier approved by the Engineer.
3. Lane closures will **NOT** be permitted during holiday periods or when unforeseen circumstances arise, as described in Section B. *Work Restrictions*, unless indicated otherwise in the contract documents.
4. Lane closures will **NOT** be permitted for the sole convenience of the Contractor. Lane closures will be permitted in order to protect traffic from an actual hazard, as determined by the Engineer.
5. Permanent lane closures will **NOT** be permitted for the duration of the contract.
6. Simultaneous closure of right and left shoulders will **NOT** be permitted unless indicated otherwise in the contract documents. Either right or left shoulder must remain clear and available through all work zones. The open shoulder shall not be used for the storage of vehicles, equipment, supplies or any other obstructions, or for any work activity.
7. Ramp closures will **NOT** be permitted, unless indicated otherwise in the contract documents. Access to interchanges, service areas and parking areas shall be maintained at all times.
8. Traffic will **NOT** be permitted to drive on milled pavement, unless indicated otherwise in the contract documents.

B. WORK RESTRICTIONS

1. **HOLIDAY PERIODS.** Lane closures will **NOT** be permitted during holiday periods, unless indicated otherwise in the contract documents. The Authority may permit work on Thruway facilities only if operations do not inhibit or distract traffic. Access to work sites from state and local roads will be permitted provided the municipality having jurisdiction for the road gives written permission. Holiday periods for this project shall be as follows:

SCHEDULE AND SUSPENSION OF WORK

SYRACUSE DIVISION

2026						
HOLIDAY	FROM			TO		
	TIME	DAY	DATE	TIME	DAY	DATE
Easter	Noon	Thursday	04/02/2026	8:00 p.m.	Monday	04/06/2026
Memorial Day	Noon	Thursday	05/21/2026	Noon	Tuesday	05/26/2026
Juneteenth	Noon	Thursday	06/18/2026	Noon	Monday	06/22/2026
Canada Day/Independence Day	Noon	Tuesday	06/30/2026	Noon	Monday	07/06/2026
State Fair/Labor Day	6:00 a.m.	Wednesday	08/26/2026	Noon	Tuesday	09/08/2026
Columbus Day/ Thanksgiving (Canada)	6:00 a.m.	Friday	10/09/2026	Noon	Tuesday	10/13/2026
Thanksgiving	Noon	Tuesday	11/24/2026	Noon	Monday	11/30/2026
Christmas/New Year's Day	Noon	Thursday	12/24/2026	6:00 a.m.	Monday	01/04/2027

2027						
HOLIDAY	FROM			TO		
	TIME	DAY	DATE	TIME	DAY	DATE
Dr. Martin Luther King, Jr. Day	Noon	Friday	01/15/27	8:00PM	Monday	01/18/27
Presidents' Day	Noon	Friday	02/12/27	8:00PM	Monday	02/15/27
Easter	Noon	Thursday	03/25/27	8:00PM	Monday	03/29/27
Memorial Day	Noon	Thursday	05/27/27	Noon	Tuesday	06/01/27
Juneteenth	Noon	Thursday	06/17/27	Noon	Monday	06/21/27
Canada Day/Independence Day	Noon	Wednesday	06/30/27	Noon	Tuesday	07/06/27
State Fair/Labor Day	6:00AM	Wednesday	08/25/27	Noon	Tuesday	09/07/27
Columbus Day/ Thanksgiving (Canada)	6:00AM	Friday	10/08/27	Noon	Tuesday	10/12/27
Thanksgiving	Noon	Tuesday	11/23/27	Noon	Monday	11/29/27
Christmas/New Year's Day	Noon	Thursday	12/23/27	6:00AM	Monday	01/03/28

2. Proposed lane closure schedules shall be submitted to the Engineer for review and approval at least one week in advance of the earliest closure.
3. The Contractor shall **NOT** be allowed to establish any lane closures during periods of inclement weather, wet or icy pavement, reduced visibility, traffic accident, emergency, or if the lane closure is causing excessive delay to the public. The Authority reserves the right to alter any lane closure and/or direct the Contractor to immediately remove a lane closure during such circumstances. The Authority shall be the sole judge of when conditions warrant these lane closure restrictions, and such restrictions will not entitle the Contractor to file a claim for additional compensation.
4. **SYRACUSE STATE FAIR 2026:** Lane closures will **NOT** be permitted from 7:30 a.m. Wednesday, August 26, 2026, through 6:30 a.m. Tuesday, September 8, 2026.

SCHEDULE AND SUSPENSION OF WORK

5. **WINTER SHUTDOWN.** A winter shutdown shall be in effect from 3:00 p.m. **November 15** to 6:00 a.m. **April 1**. During this period, the Contractor shall **NOT** be permitted to have lane closures. All temporary tape lines shall be removed, temporary concrete barrier shall be set in its winter shutdown location, and all traffic shall be re-established to its pre-construction configuration on permanent alignment. Mobilization for the following construction season may begin prior to **April 1** with permission from the Authority.

6. The Contractor shall submit a Plan of Operations to the Engineer prior to working on any full-depth repair area shown in the contract documents. The Plan of Operations shall list all full-depth repair areas and the estimated duration to complete each location. The Contractor shall also identify any full-depth repair area that may not be completed within the timeframes allowed by the traffic management table(s). For such location(s), the Contractor may request a waiver of restrictions to complete the repair(s). The Authority will review the request and determine whether or not a waiver will be granted. The Authority has the right to divide repair areas into smaller sections in lieu of granting a waiver.

7. The Contractor shall have 45 calendar days to replace the Milled in Audible Roadway Delineators (MIARDs; Formerly referred to as Shoulder Treatment for Accident Reduction (STAR) groove pattern) where more than 1,500 contiguous feet have been removed by other contract work. The Contractor shall also ensure that MIARDs are installed prior to the official shutdown period, regardless of the 45 calendar day requirement or the length removed. Exceptions to this requirement are shoulders protected by temporary traffic control devices installed as part of a work zone traffic control plan developed in the contract documents or areas directly adjacent to detour pavement that will be used in subsequent phase(s) of the project.

The Contractor shall consider these requirements when preparing bids and scheduling/sequencing the work for this contract. Failure to comply with the time frames specified will be considered a substantial deficiency in work zone traffic control and result in the non-payment for the Basic Work Zone Traffic Control Item for each calendar day during which MIARDs (formerly referred to as STARS) remain incomplete. Liquidated Damages will also be assessed at rates shown in Table 108-1 of the NYSDOT Standard Specifications.

8. Work restrictions may be modified if:
 - a. The Contractor has received permission through the Engineer, from the Division Director or designee, to progress construction operations contained entirely behind temporary concrete barrier. There shall be no hauling of materials in or out of the work site during restricted periods, and open lane availability requirements shall not be violated or compromised.

 - b. The Contractor has received permission through the Engineer, from the Division Director or designee, for temporary modification of the lane availability restrictions for performance of specific construction operations for a specific time period.

NOTE: Such requests must be based on current traffic volumes which would permit the requested temporary modification with little probability of causing disruption or delay to the public.

The Contractor shall include full explanation of the benefits to the Public and to the Authority, which would accrue in granting a temporary waiver for performance of the specific operations including calculations for any credit that may be offered. A contingency plan for action to be taken, should an unexpected traffic backup occur, shall accompany this presentation and will be one prime consideration in evaluating the request.

SCHEDULE AND SUSPENSION OF WORK

- c. The Contractor has received written authorization from the Division Director or designee to perform specific construction operations, violating the lane availability restrictions or other work restrictions during a specifically prohibited time period.

NOTE: The Contractor shall submit a written request to the Authority's Division Director, with copy to the Engineer, for permission to perform specific construction operations at specific locations and times, including a detailed explanation of why the work cannot be performed in conformance with the contract. Such requests must be received at the Division Office at least one full week before the date of the requested variance, and at least two full weeks should granting the waiver require making notice to the public regarding potential disruptions and delays.

If written authorization to work is granted by the Authority, the Contractor shall be strictly limited to those operations approved in the authorization. In making application for a waiver, the Contractor agrees that any waiver of restrictions granted by the Authority is exclusively for the Authority's benefit and purposes, and as such is subject to revocation without requirement for advance notice. Also, the disapproval of requests for waiver of contract requirements is not subject to administrative review or appeal under the contract.

C. GENERAL CONDITIONS

The Contract is to be completed on or before the specified completion date. If, for any reason, the Contractor fails to fulfill this obligation and requests an extension of time and the request is granted, the Authority, as a condition for extending the time of completion, shall retain the right to limit the Contractor's hours and/or days of work and/or impose conditions under which the work shall be performed in order that the traffic may not be unduly inconvenienced.

All the required liability and property damage insurance with the limits stated in this Proposal shall be effective and shall be continued in force throughout the life of this Contract including the stated periods of the suspension of the work.

The Contractor shall consider the foregoing requirement when preparing its "Schedule of Operations".

ADDITIONAL INSURED PARTIES

The following is a list of additional insured parties:

New York State Department of Transportation
Cayuga County Water and Sewer Authority
Town of Brutus

NON-REVENUE CONTRACTOR TRAVEL

NYS Thruway has converted to Cashless Tolling, Non-revenue pass plates will no longer be furnished to the Contractor.

Contractors and Consultants must have a properly mounted E-Z Pass transponder and must submit their EZ-Pass information to the Thruway to avoid charges for contract related business on the Thruway. The Project Engineer will provide the form used to record and submit EZ Pass information. Initial information shall be submitted to the Project Engineer prior to the start of work on the project. The initial form and any changes shall be submitted 5 working days prior to intended travel.

Non-Revenue travel will be provided within the limits of I-90, Mainline Thruway from Interchange **39** to Interchange **41**. Travel originating or ending outside of these limits will be subject to toll charges for the entire trip.

The Contractor shall be responsible for any and all tolls charged to contractor owned vehicles with (or without) E-ZPass Transponders not registered with the Authority.

OTHER CONTRACTS

The Contractor will be required to coordinate work with other Contractors and NYSTA Maintenance Forces. The following contracts have been let and may have work in progress during the duration of this contract:

<u>CONTRACT NO.</u>	<u>DESCRIPTION</u>	<u>COMPLETION DATE</u>
TAA 25-33 / D215043	Albany/Syracuse Division Pavement Safety Striping	August 28, 2026
TAS 25-26 / D215050	Syracuse Division On Demand Repairs to Thruway Infrastructure	December 24, 2027
TAS 26-11 / D215079	Concrete Paving Restoration, East of Fulton (Exit 39, MP 289.3) to West of Weedsport (Exit 40, MP 304.5)	June 30, 2028

The following contracts are anticipated to be let and may have work in progress during the duration of this contract:

<u>DESCRIPTION</u>	<u>COMPLETION DATE</u>
None	

ENGINEER'S OFFICE AND CONTRACTOR'S FIELD OFFICE

The location of the Engineer's Office and Contractor's Field Office will be determined during the Pre-Construction Meeting. The site will be approved by the Engineer prior to placing the offices and the area shall be kept in a neat, clean condition at all times. The area shall not be used as a staging, storage, equipment or employee parking area.

U-TURNS/CROSSOVERS

The Contractor will not be permitted to make U-turns or crossovers at any location on the Thruway system. All vehicles must exit the Thruway system and re-enter for all direction changes. All applicable traffic laws must be followed.

SPOIL AREA

There is no identified spoil area within the Thruway Authority's right-of-way for this contract. Therefore, the Contractor shall remove all surplus material and waste from Thruway Authority (Authority) property. The Contractor shall bid accordingly for this condition.

The Contractor shall provide the Authority a copy of all easements and/or access agreement letters received from landowner(s) of off-site disposal area(s) prior to disposal of any material. The easements and/or access agreement letters must include a statement by the Contractor and the landowner that the disposal of the material is in compliance with all applicable federal, state and local laws and regulations.

Should a mutually approved spoil use area within the Authority's right-of-way be identified for Contractor use after the project letting, a credit in the amount of 50% of the unclassified excavation unit bid price will be deducted for each cubic yard spoiled within the Authority right-of-way. If the contract does not contain an unclassified excavation item, the credit will be determined using either 50% of the item generating the spoil or 50% of the Division/Regional weighted average bid price for unclassified excavation, whichever is less. This credit may be waived, either wholly or in part, by the Division Director in writing if it is determined that permitting spoil on Authority right-of-way is in the best interest of the Authority (ie: slope flattening resulting in elimination of guide rail).

OVERHEAD GANTRY
SIGNING

Signs shall be installed within the project limits when any component of equipment will be operating above 14'-6" in elevation and within 100 linear feet of an overhead gantry. Overhead gantries may have electric powered wires and special equipment, therefore, vehicle and equipment operations must be planned and proposed equipment safety procedures included in a Project Safety and Health Plan.

As mentioned in the Thruway Addendum to the Standard Specifications (TA), specifically in **Section 107-05 SAFETY AND HEALTH REQUIREMENTS, O. Equipment Safety Procedures. 6. Work Operations. d.** Dump truck boxes may be raised only under the control of a spotter, unless the vehicle is in an area clearly marked to be free of overhead wires and safe for dumping.

Refer to Thruway Standard Sheet **TA 619-27** for additional information and signing requirements.

OVERHEAD GANTRY
TRAFFIC SHIFT RESTRICTIONS

The Contractor shall not shift traffic at any toll gantry such that vehicles are traveling between lanes or between lanes/shoulders when passing under the gantry centerline (treadle). Traffic shifts, for purposes of staging work, shall be done prior to or after the gantries, such that vehicles are traveling within a complete lane or shoulder when passing under the gantry centerline (treadle). All work zone traffic control shall be provided in accordance with the 619 Standard Specifications and the Thruway Addendum to the 619 Standard Specifications, the National Manual on Uniform Traffic Control Devices and NYS Supplement, any provisions contained within the contract documents, and as ordered by the Engineer.

OVERHEAD GANTRY
PARKING RESTRICTIONS

The Contractor shall not park any vehicle or construction equipment directly beneath overhead gantries, within a complete lane or between a lane/shoulder, unless it is required to perform project specific related work, as directed by the Engineer in Charge and after coordination with the Authority's Intelligent Transportation System Management unit.

SPECIAL NOTE**Section 108-05 Self Perform Work and Second Tier Subcontractor Requirements**

Under this contract, Standard Specification Section 108-05 requirements are modified to require the Contractor to perform, with its own organization, contract work amounting to not less than 30 percent of the total contract bid price. The amount for any items designated as "Specialty Items" will be deducted from the original total contract bid price before computing the amount of work required to be performed by the Contractor with its own organization.

Under this contract, Standard Specification Section 108-05 requirements are modified to permit individual Subcontractors to assign work to lower tier subcontractors. All lower tier Subcontractors must obtain the same approvals from the Authority as required by first tier Subcontractors prior to beginning work. Work by a non-approved Subcontractor or Trucker will be suspended by the Engineer and payment for work by a non-approved Subcontractor or Trucking Firm may be withheld.

SUPPLEMENTAL INFORMATION FOR BIDDERS

Supplemental information is available to bidders. As indicated below, information is either available on the Thruway Authority's website with the contract plans and proposal or available in electronic format from the Thruway Authority upon request prior to or after the letting date.

The bidder's signature on this proposal certifies that they have made themselves aware of the availability of the information indicated below prior to the letting date.

INFORMATION	NOT AVAILABLE	AVAILABLE ON THRUWAY AUTHORITY WEBSITE
Engineer Estimate Quantity Workups	X	
Utility Estimate Sheets with Names of Utility Officials	X	
Earthwork Cross Section Sheets	X	
Earthwork Sheets	X	
Drainage Estimate Sheets	X	
Sign Face Layouts	X	
Subsurface Exploration Logs	X	
Rock Core Evaluation Logs and Photographs	X	
Compression Test Data from Rock Samples	X	
Pavement Core Logs and Photographs	X	
Logs Showing Laboratory Description of Soil Samples	X	
Laboratory Test Data from Soil Samples	X	
Rock Outcrop Maps	X	
Record Plans	X	
Applicable Asbestos Blanket Variances	X	
Storm Water Pollution Prevention Plan	X	
Shop Drawings	X	
CADD Files of Contract Plans (Unofficial - Not signed or stamped)	X	
Special Reports or Other Information		X

Hard copies of the supplemental information indicated above are not available. Contractors shall be responsible for their own hard copies of this information at no additional cost to the Authority.

**REVISIONS TO
NYSDOT
STANDARD
SPECIFICATIONS**

NEW YORK STATE THRUWAY AUTHORITY ADDENDUM TO THE STANDARD SPECIFICATIONS

The Standard Specifications published by the New York State Department of Transportation shall form a part of the agreement. The dated edition that applies to this contract is provided on the front cover of the Proposal. All work contemplated under this contract is to be covered by, and be in conformance with, the Standard Specifications as modified by The New York State Thruway Authority Addendum (TA) to the Standard Specification Books.

The officially adopted Thruway Authority Addendum (TA) to the NYSDOT Standard Specification Books is available on the Thruway Authority website at:

<http://www.thruway.ny.gov/business/addendum/index.html>

The most recent version of the TA, prior to the project Letting Date, shall apply to this agreement.

All special notes bound in this proposal shall be incorporated. If a conflict exists between the special specifications and/or provisions set forth in this proposal and the specifications and/or provisions set forth in the New York State Department of Transportation's Standard Specifications, those in the Proposal shall govern.

SPECIAL SPECIFICATIONS

SPECIAL NOTE
SPECIAL SPECIFICATION PAY ITEM NUMBERS

The Contractor's attention is directed to the special specification pay item formats used in this contract. Special specification pay items may be presented in two (2) different formats:

Format 1: Pay items for a special specification will have three (3) digits to the left of the decimal point and up to eight (8) digits to the right of the decimal. Spaces may appear in the third to sixth places after the decimal. The 7th and 8th digits to the right of the decimal will represent the origin of the specification.

Format 2: Pay items for a special specification will have three (3) digits to the left of the decimal point and up to eight (8) digits to the right of the decimal. Dashes may appear in the third to sixth places after the decimal. The 7th and 8th digits to the right of the decimal will represent the origin of the specification.

Where items in this contract appear in multiple formats, the formats shall be equated to each other as illustrated below:

FORMAT 1

XXX.XX XX
 XXX.XXXX XX
 XXX.XXXXXXX

FORMAT 2

XXX.XX-----XX
 XXX.XXXX---XX
 XXX.XXXXXXXX

ITEM 627.0003 25**CONCRETE****1. DESCRIPTION:**

- 1.01 Furnish all labor, materials, equipment and services necessary to complete the work as indicated on the Contract Plans and the attached Specification Summary.
- 1.02 All work shall conform to the requirements specified in Part 1 – General, of the Sections listed.

2. MATERIALS:

- 2.01 The materials shall be as specified in Part 2 – Products, of the Sections listed.

3. CONSTRUCTION DETAILS:

- 3.01 The construction details shall be as specified on Part 3 – Execution, if the Sections listed.

4. METHOD OF MEASUREMENT:

- 4.01 This item shall be measured for payment on a lump sum basis for the work completed in accordance with the Contract Documents and as directed by the NYSTA and Architect/Engineer.

5. BASIS OF PAYMENT:

- 5.01 Payment for this item shall be made at the lump sum bid price bid. The lump sum price bid shall include cost of furnishing all labor, material, equipment and appliances necessary to complete the work as indicated on the Contract Plans and as specified herein in the Sections listed.
- 5.02 Detailed Estimate:
 - A. Before the first certificate of payment is issued for the work under this item, submit a detailed estimate of quantities and prices for all materials, labor, and other items included under this item, which shall aggregate the contract lump sum price bid for this item. Prepare the detailed estimate in the same sequence as the Sections listed.
 - B. The detailed estimate shall be supported by such evidence, including certified copies of subcontracts, as the NYSTA may require.
 - C. The detailed estimate must be approved by the NYSTA's Representative who may revise it as, in his/her reasonable judgment, is necessary to make the various item conform to their true values. The value of each certificate of payment will be based on the approved detailed estimate.
- 5.03 Monthly payments will be made for this item in proportion to the total amount of work completed.

ITEM 627.0003 25

CONCRETE

1. SPECIFICATION SUMMARY

1.01 This Item includes the following specifications:

A. Section 033000 – Cast-in-Place Concrete

1.02 This item shall include, but not be limited to, the following:

A. Concrete sidewalk.

B. Ancillary equipment pads.

END OF ITEM 627.0003 25

SECTION 03 30 00

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume; subject to compliance with requirements.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
- C. Steel Reinforcement Shop Drawings: Placing drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement.

1.3 INFORMATIONAL SUBMITTALS

- A. Material Certificates: For each of the following, signed by manufacturers:
 - 1. Cementitious materials.
 - 2. Admixtures.
 - 3. Steel reinforcement and accessories.
 - 4. Curing compounds.
 - 5. Bonding agents.
 - 6. Adhesives.
 - 7. Semirigid joint filler.
 - 8. Joint-filler strips.
 - 9. Repair materials.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94 requirements for production facilities and equipment.

1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
- B. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from single source, and obtain admixtures from single source from single manufacturer.
- C. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
 1. ACI 301, "Specifications for Structural Concrete," Sections 1 through 5.
 2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."
- D. Concrete Testing Service: Unless noted otherwise, Contractor shall engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
 1. Plywood, metal, or other approved panel materials.
- B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.
- C. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4-inch, minimum.
- D. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.
 1. Formulate form-release agent with rust inhibitor for steel form-facing materials.
- E. Form Ties: Factory-fabricated, removable or snap-off metal or glass-fiber-reinforced plastic form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.

1. Furnish units that will leave no corrodible metal closer than 1-inch to the plane of exposed concrete surface.
2. Furnish ties that, when removed, will leave holes no larger than 1-inch in diameter in concrete surface.

2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615, Grade 60, deformed.
- B. Plain-Steel Welded Wire Reinforcement: ASTM A 185, plain, fabricated from as-drawn steel wire into flat sheets.

2.3 REINFORCEMENT ACCESSORIES

- A. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice," of greater compressive strength than concrete and as follows:
 1. For concrete surfaces exposed to view where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire or CRSI Class 2 stainless-steel bar supports.

2.4 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
 1. Portland Cement: ASTM C 150, Type I/II.
 - a. Fly Ash: ASTM C 618, Class F.
 - b. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.
- B. Silica Fume: ASTM C 1240, amorphous silica.
- C. Normal-Weight Aggregates: ASTM C 33, Class 3S coarse aggregate or better, graded. Provide aggregates from a single source.
 1. Maximum Coarse-Aggregate Size: 1-inch nominal.
 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- D. Water: ASTM C 94 and potable.

2.5 ADMIXTURES

- A. Air-Entraining Admixture: ASTM C 260.

- B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
1. Water-Reducing Admixture: ASTM C 494, Type A.
 2. Retarding Admixture: ASTM C 494, Type B.
 3. Water-Reducing and Retarding Admixture: ASTM C 494, Type D.
 4. High-Range, Water-Reducing Admixture: ASTM C 494, Type F.
 5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494, Type G.
 6. Plasticizing and Retarding Admixture: ASTM C 1017, Type II.
 7. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Euclid Chemical Company (The), an RPM company;
 - b. Grace Construction Products, W. R. Grace & Co.; DCI.
 - c. Sika Corporation; Sika CNI.

2.6 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. BASF Construction Chemicals - Building Systems; Confilm.
 - b. ChemMasters; SprayFilm.
 - c. Conspec by Dayton Superior; Aquafilm.
 - d. Dayton Superior Corporation; Sure Film (J-74).
 - e. Euclid Chemical Company (The), an RPM company; Eucobar.
 - f. Meadows, W. R., Inc.; EVAPRE.
 - g. Sika Corporation; SikaFilm.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.
1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

- a. BASF Construction Chemicals - Building Systems; Kure 200.
- b. ChemMasters; Safe-Cure Clear.
- c. Conspec by Dayton Superior; W.B. Resin Cure.
- d. Dayton Superior Corporation; Day-Chem Rez Cure (J-11-W).
- e. Euclid Chemical Company (The), an RPM company; Kurez W VOX; TAMMSCURE WB 30C.
- f. Meadows, W. R., Inc.; 1100-CLEAR.

2.7 RELATED MATERIALS

- A. Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene

2.8 REPAIR MATERIALS

- A. Repair Underlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8-inch and that can be feathered at edges to match adjacent floor elevations.
 1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
 2. Primer: Product of underlayment manufacturer recommended for substrate, conditions, and application.
 3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4-inch or coarse sand as recommended by underlayment manufacturer.
 4. Compressive Strength: Not less than 4100 psi at 28 days when tested according to ASTM C 109.
- B. Repair Overlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/4-inch and that can be filled in over a scarified surface to match adjacent floor elevations.
 1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
 2. Primer: Product of topping manufacturer recommended for substrate, conditions, and application.
 3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4-inch or coarse sand as recommended by topping manufacturer.
 4. Compressive Strength: Not less than 5000 psi at 28 days when tested according to ASTM C 109.

2.9 CONCRETE MIXTURES, GENERAL

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.

1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.
- B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:
1. Fly Ash: 25 percent.
 2. Combined Fly Ash and Pozzolan: 25 percent.
 3. Ground Granulated Blast-Furnace Slag: 50 percent.
 4. Combined Fly Ash or Pozzolan and Ground Granulated Blast-Furnace Slag: 50 percent portland cement minimum, with fly ash or pozzolan not exceeding 25 percent.
- C. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.
- D. Admixtures: Use admixtures according to manufacturer's written instructions.
1. Use water-reducing, high-range water-reducing, or plasticizing admixture in concrete, as required, for placement and workability.
 2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.

2.10 CONCRETE MIXTURES FOR BUILDING ELEMENTS

Location	F'c Minimum 28-Day Comp. Strength (PSI)	Minimum Cementitious Material Content (LBS)	ASTM C33 Maximum Nominal Aggregate (Size No)	Range of Slump (Inches)	Maximum Water- Cement Ratio (by Weight)	Air Entrain (Percent)
Other	4000	540	67	1"-3"	0.48	<3
Concrete Exposed to Weather or De-Icing	4500	540	67	1"-3"	0.45	6.0

Provide air entrainment using air-entraining admixture. Provide air entrainment within plus or minus 1.0 percent of the value specified.

2.11 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.12 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94, and furnish batch ticket information.
 - 1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Limit concrete surface irregularities, designated by ACI 347 as abrupt or gradual, as follows:
 - 1. Class A, 1/8-inch for smooth-formed finished surfaces.
 - 2. Class C, 1/2-inch for rough-formed finished surfaces.
- D. Construct forms tight enough to prevent loss of concrete mortar.
- E. Chamfer exterior corners and edges of permanently exposed concrete.
- F. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.
- G. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- H. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- I. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 1. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC's "Code of Standard Practice for Steel Buildings and Bridges."

3.3 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that would reduce bond to concrete.
- C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.
- D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.
- E. Install welded wire reinforcement in longest practicable lengths on bar supports spaced to minimize sagging. Lap edges and ends of adjoining sheets at least one mesh spacing. Offset laps of adjoining sheet widths to prevent continuous laps in either direction. Lace overlaps with wire.

3.4 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by the Authority.
 - 1. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to one fourth on concrete thickness as follows:
 - 1. Sawed Joints: Form contraction-joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.

3.5 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.
- B. Do not add water to concrete during delivery, at Project site, or during placement unless approved by the Authority.
- C. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301.
- D. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
 - 1. Deposit concrete in horizontal layers of depth to not exceed formwork design pressures and in a manner to avoid inclined construction joints.
 - 2. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
 - 3. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.
- E. Deposit and consolidate concrete for slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
 - 1. Consolidate concrete during placement operations so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
 - 2. Maintain reinforcement in position on chairs during concrete placement.
 - 3. Screed slab surfaces with a straightedge and strike off to correct elevations.
 - 4. Slope surfaces uniformly to drains where required.
 - 5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.
- F. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 - 1. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.

2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- G. Hot-Weather Placement: Comply with ACI 301 and as follows:
1. Maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
 2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

3.6 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
1. Apply to concrete surfaces not exposed to public view.
- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
1. Apply to concrete surfaces exposed to public view, to receive a rubbed finish, to be covered with a coating or covering material applied directly to concrete.
- C. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.7 FINISHING SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraighening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighen until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
1. Apply a trowel finish to surfaces exposed to view.

2. Finish and measure surface so gap at any point between concrete surface and an unlevelled, freestanding, 10-ft. long straightedge resting on two high spots and placed anywhere on the surface does not exceed ¼-inch.
- C. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and elsewhere as indicated.
1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with the Authority before application.

3.8 MISCELLANEOUS CONCRETE ITEMS

- A. Filling In: Fill in holes and openings left in concrete structures after work of other trades is in place unless otherwise indicated. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete the Work.

3.9 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for the remainder of the curing period.
- D. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces. Provide moisture curing on slabs-on-grade unless specified otherwise.
- E. Cure concrete according to ACI 308.1, by one or a combination of the following methods:
1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Continuous water-fog spray.
 - c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.

2. **Moisture-Retaining-Cover Curing:** Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material.
3. **Curing and Sealing Compound:** Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Maintain continuity of coating and repair damage during curing period.

3.10 JOINT FILLING

- A. Prepare, clean, and install joint filler according to manufacturer's written instructions.
 1. Defer joint filling until concrete has aged at least one month(s). Do not fill joints until construction traffic has permanently ceased.
- B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joint clean and dry.
- C. Install semirigid joint filler full depth in saw-cut joints and at least 2 inches deep in formed joints. Overfill joint and trim joint filler flush with top of joint after hardening.

3.11 CONCRETE SURFACE REPAIRS

- A. **Defective Concrete:** Repair and patch defective areas when requested by the Authority. Remove and replace concrete that cannot be repaired and patched to the Authority approval.
- B. **Patching Mortar:** Mix dry-pack patching mortar, consisting of one-part portland cement to two and one-half parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.
- C. **Repairing Formed Surfaces:** Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
 1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2-inch in any dimension to solid concrete. Limit cut depth to 3/4-inch. Make edges of cuts perpendicular to concrete surface. Clean, dampen with water, and brush-coat holes and voids with bonding agent. Fill and compact with patching mortar before bonding agent has dried. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
 2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement so that, when dry, patching mortar will match surrounding color. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.

3. Repair defects on concealed formed surfaces that affect concrete's durability and structural performance as determined by the Authority.
- D. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01-inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
 2. After concrete has cured at least 14 days, correct high areas by grinding.
 3. Correct localized low areas during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete.
 4. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4-inch to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
 5. Repair defective areas, except random cracks and single holes 1-inch or less in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose steel reinforcement with at least a 3/4-inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials and mixture as original concrete except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.
 6. Repair random cracks and single holes 1-inch or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.
- E. Repair materials and installation not specified above may be used, subject to the Authority's approval.

3.12 FIELD QUALITY CONTROL

- A. Testing and Inspecting: The Contractor shall appoint, employ, and pay for the services of independent firm to perform all inspections and testing as specified in the Contract Documents, unless identified as Special Inspections and Testing or directed otherwise by the Authority.
- B. Inspections by Contractor:

1. Steel reinforcement placement.
 2. Verification of use of required design mixture.
 3. Concrete placement, including conveying and depositing.
 4. Curing procedures and maintenance of curing temperature.
- C. Concrete Tests by Contractor: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
1. Testing Frequency: Obtain at least one composite sample for each 100 cu. yd. or fraction thereof of each concrete mixture placed each day.
 - a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
 2. Slump: ASTM C 143; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
 3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 4. Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
 5. Compression Test Specimens: ASTM C 31.
 - a. Cast and laboratory cure two sets of two standard cylinder specimens for each composite sample.
 - b. Cast and field cure two sets of two standard cylinder specimens for each composite sample.
 6. Compressive-Strength Tests: ASTM C 39; test one set of two laboratory-cured specimens at 7 days and one set of two specimens at 28 days.
 - a. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.
 7. Test results shall be reported in writing to the Authority, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
 8. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by the Authority but will not be used as sole basis for approval or rejection of concrete.

9. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by the Authority. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42 or by other methods as directed by the Authority.
10. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
11. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

END OF SECTION

ITEM 627.0022 – 25 PLUMBING

1. DESCRIPTION:

- 1.01 Furnish all labor, materials, equipment and services necessary to complete the work as indicated on the Contract Plans and the Specification Sections listed below
- 1.04 All work shall conform to the requirements specified in Part 1 – General, of the Sections listed.

2. MATERIALS:

- 2.01 The materials shall be as specified in Part 2 – Products, of the Sections listed.

3. CONSTRUCTION DETAILS:

- 3.01 The construction details shall be as specified on Part 3 – Execution, if the Sections listed.

4. METHOD OF MEASUREMENT:

- 4.01 This item shall be measured for payment on a lump sum basis for the work completed in accordance with the Contract Documents and as directed by the Engineer.

5. BASIS OF PAYMENT:

- 5.01 Payment for this item shall be made at the lump sum bid price bid. The lump sum price bid shall include cost of furnishing all labor, material, equipment and appliances necessary to complete the work as indicated on the Contract Plans and as specified herein in the Sections listed.
- 5.02 Detailed Estimate:
- A. Before the first certificate of payment is issued for the work under this item, submit a detailed estimate of quantities and prices for all materials, labor, and other items included under this item, which shall aggregate the contract lump sum price bid for this item. Prepare the detailed estimate in the same sequence as the Sections listed.
 - B. The detailed estimate shall be supported by such evidence, including certified copies of subcontracts, as the Engineer may require.
 - C. The detailed estimate must be approved by the Engineer who may revise it as, in his/her reasonable judgment, is necessary to make the various item conform to their true values. The value of each certificate of payment will be based on the approved detailed estimate.
- 5.03 Monthly payments will be made for this item in proportion to the total amount of work completed.

ITEM 627.0022 – 25 PLUMBING

1. SPECIFICATION SUMMARY

1.01 This Item includes the following specifications:

- A. Section 221313 – Facility Sanitary Sewers
- B. Section 221344 – System Sewage Pumping

1.02 This item shall include, but not be limited to, the following:

- A. Piping, fittings, accessories, and manholes.
- B. New grinder pump at PS-1
- C. New grinder pump station at PS-2

END OF ITEM 627.0022--25

SECTION 22 13 13

FACILITY SANITARY SEWERS

PART 1 - GENERAL

1.1 DEFINITIONS

- A. HDPE: High-Density Polyethylene.
- B. PVC: Polyvinyl Chloride.
- C. DIP: Ductile Iron Pipe.

1.2 SUBMITTALS

- A. Product Data: For the following:
 - 1. Piping.
 - 2. Non-pressure and pressure couplings.
 - 3. Valves.
 - 4. Manhole structures, frames and covers.
- B. Shop Drawings: For manholes: include plans, elevations, sections, details, and frames and covers.
- C. Field quality-control reports.
- D. As-built Drawings

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Preparation for Transport: Prepare valves according to the following:
 - 1. Ensure that valves are dry and internally protected against rust and corrosion.
 - 2. Protect valves against damage to threaded ends and flange faces.
 - 3. Set valves in best position for handling. Set valves closed to prevent rattling.
- B. During Storage: Use precautions for valves according to the following:
 - 1. Do not remove end protectors unless necessary for inspection; then reinstall for storage.
 - 2. Protect from weather. Store indoors and maintain temperature higher than ambient dew-point temperature. Support off the ground or pavement in watertight enclosures when outdoor storage is necessary.

- C. Handling: Use sling to handle valves if size requires handling by crane or lift. Rig valves to avoid damage to exposed parts. Do not use handwheels or stems as lifting or rigging points.
- D. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture.
- E. Protect stored piping from moisture and dirt. Elevate above grade. Do not exceed structural capacity of floor when storing inside.
- F. Protect flanges, fittings, and specialties from moisture and dirt.
- G. Store plastic piping protected from direct sunlight. Support to prevent sagging and bending.
- H. Handle manholes according to manufacturer's instructions.

1.4 PROJECT CONDITIONS

- A. Interruption of Existing Sanitary Sewerage Service: Do not interrupt service to facilities occupied unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:
 1. Notify the Authority and authorities having jurisdiction no fewer than two working days (48 hours) in advance of proposed interruption of service.
 2. Do not proceed with interruption of service without the Authority and authorities having jurisdiction written permission.
 3. .

PART 2 - PRODUCTS

2.1 PE PIPE AND FITTINGS

- A. PE 4710 Resin, AWWA/ASTM Pipe:
 1. AWWA C901, ASTM D3035 for 3-inch diameter pipe, iron pipe size (IPS), DR9 (250 psi).
 - a. Molded PE Fittings: PE 4710 resin, socket-or butt-fusion type meeting ASTM D2683 or D3261, respectively.
 2. AWWA C906/ASTM F714 for 4-inch diameter pipe, ductile iron pipe size (DIPS), DR9 (250 psi).
 - a. Molded PE Fittings: PE 4710 resin, socket- or butt-fusion type meeting ASTM D2683 or D3261, respectively.
- B. Tracer Wire:

1. Description: Two (2) tracer wires shall be affixed to the top of the pipe. Tracer wires shall be provided in sufficient length to be continuous over each separate run of non-metallic pipe. Tracer wire shall be suitable for directional drilling.
 - a. Material: Blue HDPE coated copper-clad steel.
 - b. Diameter: 0.0808-inch (12 AWG) minimum.
 - c. Manufacturer: Copperhead Industries, LLC "SoloShot™" Extra High Strength Tracer Wire, or approved equal.

C. Tracer Box:

1. Description: Tracer wires shall terminate at tracer boxes located on both ends of the nonmetallic pipe run and spaced a maximum distance of 1,000 feet along the main.
 - a. Manufacturer: Copperhead Industries, LLC "SnakePit™" Magnetized Road way Box, or approved equal.

2.2 PVC PIPE AND FITTINGS

A. PVC Gravity Sewer Piping:

1. Pipe: ASTM D3034, SDR 35, solid PVC gravity sewer pipe with bell-and-spigot ends for gasketed joints.
2. Fittings: ASTM D3034, PVC with bell ends.
3. Gaskets: ASTM F477, elastomeric seals.

B. PVC Pressure Piping:

1. Pipe: AWWA C900, DR 18 (Green) PVC pipe with bell-and-spigot ends for gasketed joints.
2. Fittings: AWWA C900, DR 18 PVC Pipe with bell ends.
3. Joints: ASTM D3139.
4. Gaskets: ASTM F477, elastomeric seals.

C. PVC Pump Station Piping:

1. Pipe: ASTM D 1785, Schedule 80 PVC, with plain ends for solvent-cemented joints.
2. Fittings: ASTM D 2467, Schedule 80 PVC, socket type.

2.3 DUCTILE-IRON, PRESSURE PIPE AND FITTINGS

A. Flanged Piping:

1. Pipe: AWWA C151/A21.51, cement-mortar lined with asphaltic coating inside and out
2. Flanges: ANSI/AWWA C115/A21.15
3. Cement-mortar lined with asphaltic coating inside and out.
4. Standard Fittings: AWWA C110/A21.10, ductile or gray iron.

5. Compact Fittings: AWWA C153/A21.53.
6. Gaskets: AWWA C111/A21.11, rubber, of shape matching pipe and fittings.

2.4 JOINING MATERIALS

- A. Plastic Pipe-Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer, unless otherwise indicated.

2.5 PRESSURE-TYPE PIPE COUPLINGS

- A. Transition Fittings: Manufactured fitting or coupling same size as, with pressure rating at least equal to and ends compatible with, piping to be joined.
- B. Tubular-Sleeve Pipe Couplings:
 1. Manufacturers: Subject to compliance with the requirements. Description: Metal, bolted, sleeve-type, reducing or transition coupling, with center sleeve, gaskets, end rings, and bolt fasteners and with ends of same sizes as piping to be joined.
 - a. Standard: AWWA C219.
 - b. Center-Sleeve Material: Stainless steel.
 - c. Gasket Material: Natural or synthetic rubber.
 - d. Pressure Rating: 200 psig minimum.
 - e. Metal Component Finish: Corrosion-resistant coating or material.
- C. Pipe Caps and Stubs: Pipe caps and stubs shall match the adjoining pipe size and material and shall be restrained by mechanical joint restraints.

2.6 NONPRESSURE-TYPE TRANSITION COUPLINGS

- A. Comply with ASTM C 1173, elastomeric, sleeve-type coupling for joining underground nonpressure piping. Include ends of same sizes as piping to be joined and corrosion-resistant-metal tension band and tightening mechanism on each end.
- B. Sleeve Materials:
 1. For Plastic Pipes: ASTM F477, elastomeric seal or ASTM D5926, PVC.
 2. For Dissimilar Pipes: ASTM D5926, PVC or other material compatible with pipe materials being joined.
 3. Manufacturers: Fernco Inc., 5000 series RC coupling, or approved equal.

2.7 TRUE UNION VALVES

- A. True Union ball valves and swing check valves, 3 inches and under in size”
 1. Construction:

- a. Design Standard: NSF 61 / ANSI Standard, ASTM F 1970.
- b. All PVC components exclusive of seat and O-rings.
- c. Pressure Rating: 150 psi @ 73° F.
- d. Socket end connections.
- e. O-ring shall be EPDM or FKM with PTFE seats.
- f. Full port design.

2.8 GATE VALVES

A. AWWA, Ductile-Iron Gate Valves for 2 - 4-inch Diameter Pipe:

1. Nonrising-Stem, Resilient-Seated Gate Valves:

- a. Description: Ductile-iron body and bonnet; with ductile-iron gate, resilient seats, bronze stem, and stem nut.
 - 1) Standard: AWWA C509.
 - 2) Minimum Pressure Rating: 250 psig.
 - 3) End Connections: Mechanical joint or flanged, as indicated on the Contract Drawings.
 - 4) Interior and Outside Coating: Complying with AWWA C550.
 - 5) Certified Lead-Free.
 - 6) 2" square wrench nut unless indicated otherwise.
- b. Manufacturers: Model A-2362 by Mueller Co., LLC, or approved equal.

2.9 GATE VALVE ACCESSORIES AND SPECIALTIES

- A. Valve Boxes: Comply with AWWA M44 for cast-iron valve boxes. Include top section, adjustable extension of length required for depth of burial of valve, plug with lettering "SEWER," and bottom section with base that fits over valve and with a barrel approximately 5 inches in diameter.

2.10 CHECK VALVES

A. AWWA, Cast Iron Check Valves:

- 1. Description: Swing-check type with resilient seat.
 - a. Standard: AWWA C508.
 - b. Pressure Rating: 200 psig.
 - c. End Connections: Flanged.
 - d. Interior and Exterior Coating: Comply with AWWA C550.

2.11 RELIEF VALVES

A. Air/Vacuum Wastewater Valves:

1. Manufacturers: Model VMC 301A single body air/vacuum wastewater valve by Val-Matic Valve and Manufacturing, 905 Riverside Drive, Elmhurst, IL 60126, or approved equal.
2. Description: Fully automatic float operated valves designed to exhaust large quantities of air during filling of piping system and close upon liquid entry. The valve shall re-open during draining or if a negative pressure occurs.
 - a. Standards: AWWA C512.
 - b. Pressure Rating: 150 psig.
 - c. Body Material: ASTM A126 Class B Cast Iron.
 - d. Trim Material: Stainless steel 316.
 - e. Body Style: Single Body.
 - f. Air Outlet Size: 1-inch threaded.

B. Wastewater Combination Air Valves:

1. Manufacturers: Model VMC 48A/301A dual body wastewater combination air valve by Val-Matic Valve and Manufacturing, 905 Riverside Drive, Elmhurst, IL 60126, or approved equal.
2. Description: Automatic float operated valves designed to exhaust large quantities of air during the filling of a piping system and close upon liquid entry. The valve shall open during draining or if a negative pressure occurs. The valve shall also release accumulated air from a piping system while the system is in operation and under pressure. The valve shall perform the functions of both Wastewater Air Release and Wastewater Air/Vacuum Valves.
 - a. Standards: AWWA C512.
 - b. Pressure Rating: 150 psig.
 - c. Body Material: ASTM A126 Class B Cast Iron.
 - d. Trim Material: Stainless steel 316.
 - e. Body Style: Dual body.
 - f. Air Outlet Size: 1-inch NPT.

2.12 MANHOLES

A. Standard Precast Concrete Manholes:

1. Description: ASTM C 478, 4000 psi min. precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Design Loading: AASHTO HS-20-44.
3. Structures shall be watertight. Structures lift holes, grade adjustment rings and frames shall be sealed with a non-shrinking mortar.
4. Diameter: 48 inches inside diameter minimum, unless otherwise indicated.
5. Ballast: Increase thickness of precast concrete sections or add concrete to base section, as required to prevent flotation.

6. Base Section: 8-inch minimum thickness for floor slab and 5-inch minimum thickness for walls and base riser section; with separate base slab or base section with integral floor.
7. Riser Sections: 5-inch minimum thickness, of length to provide depth indicated.
8. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated; with top of cone of size that matches grade rings.
9. Joint Sealant: ASTM C443, rubber gaskets.
10. Resilient Pipe Connectors: ASTM C923, cast or fitted into manhole walls, for each pipe connection.
11. Steps: Individual FRP steps, or ASTM A615, deformed, 1/2-inch steel reinforcing rods encased in ASTM D4101, PP; wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Steps shall meet the requirements of OSHA 29 CFR 1910.24. Cast or anchor steps into sidewalls at 12-inch intervals. Omit steps if total depth from floor of manhole to finished grade is less than 48 inches.
12. Adjusting Rings: Interlocking HDPE rings, with level or sloped edge in thickness and diameter matching manhole frame and cover, and with height as required to adjust manhole frame and cover to indicated elevation and slope. Include sealant recommended by ring manufacturer.
13. Grade Rings: Reinforced-concrete rings, 6- to 9-inch total thickness, with diameter matching manhole frame and cover, and with height as required to adjust manhole frame and cover to indicated elevation and slope.

B. Cleanout Manhole:

1. Description: ASTM C 478, 4000 psi min. precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Design Loading: AASHTO HS-20-44.
3. Structure shall be watertight. Structure's lift holes, grade adjustment rings and frames shall be sealed with a non-shrinking mortar.
4. Diameter: 48 inches inside diameter minimum, unless otherwise indicated.
5. Ballast: Increase thickness of precast concrete sections or add concrete to base section, as required to prevent flotation.
6. Base Section: 6-inch minimum thickness for floor slab and 5-inch minimum thickness for walls and base riser section; with separate base slab or base section with integral floor.
7. Riser Sections: 5-inch minimum thickness, of length to provide depth indicated.
8. Top Section: Flat-slab-top
9. Joint Sealant: ASTM C443, rubber gaskets.
10. Resilient Pipe Connectors: ASTM C923, cast or fitted into manhole walls, for each pipe connection.
11. Steps: Individual FRP steps, or ASTM A615, deformed, 1/2-inch steel reinforcing rods encased in ASTM D4101, PP; wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Steps shall meet the requirements of OSHA 29 CFR 1910.24. Cast or anchor steps into sidewalls at 12-inch intervals.
12. Adjusting Rings: Interlocking HDPE rings, with level or sloped edge in thickness and diameter matching manhole frame and cover, and with height as required to adjust

manhole frame and cover to indicated elevation and slope. Include sealant recommended by ring manufacturer.

13. Grade Rings: Reinforced-concrete rings, 6- to 9-inch total thickness, with diameter matching manhole frame and cover, and with height as required to adjust manhole frame and cover to indicated elevation and slope.

C. Force Main Blow-Off:

1. Description: ASTM C 478, 4000 psi min. precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Design Loading: AASHTO HS-20-44.
3. Structure shall be watertight. Structure's lift holes, grade adjustments, rings and frames shall be sealed with non-shrinking mortar.
4. Diameter: 48 inches inside diameter minimum, unless otherwise indicated.
5. Ballast: Increase thickness of precast concrete sections or add concrete to base section, as required to prevent flotation.
6. Base Section: 6-inch minimum thickness for floor slab and 5-inch minimum thickness for walls and base riser section; with separate base slab or base section with integral floor.
7. Riser Sections: 5-inch minimum thickness, of length to provide depth indicated.
8. Top Section: Flat-slab-top.
9. Joint Sealant: ASTM C443, rubber gaskets.
10. Resilient Pipe Connectors: ASTM C923, cast or fitted into manhole walls, for each pipe connection.
11. Steps: Individual FRP steps, or ASTM A615, deformed, 1/2-inch steel reinforcing rods encased in ASTM D4101, PP; wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Steps shall meet the requirements of OSHA 29 CFR 1910.24. Cast or anchor steps into sidewalls at 12-inch intervals.
12. Adjusting Rings: Interlocking HDPE rings, with level or sloped edge in thickness and diameter matching manhole frame and cover, and with height as required to adjust manhole frame and cover to indicated elevation and slope. Include sealant recommended by ring manufacturer.
13. Grade Rings: Reinforced-concrete rings, 6- to 9-inch total thickness, with diameter matching manhole frame and cover, and with height as required to adjust manhole frame and cover to indicated elevation and slope.

D. Manhole Frames and Covers:

1. Description: Ferrous; 24-inch ID by 7- to 9-inch riser, with 4-inch-minimum-width flange and 26-inch-diameter cover. Covers shall be lockable and include indented top design with lettering cast into cover, using wording equivalent to "SANITARY SEWER."
2. Material: ASTM A 48, Class 35 gray iron unless otherwise indicated.
3. Manhole frames and covers shall be gasketed and watertight.

2.13 COMBINATION AIR VALVE VAULTS

- A. Description: Precast, reinforced-concrete vault, designed for A-16 (HS20-44) traffic load designation according to ASTM C857 and made according to ASTM C858.
1. Size: As indicated on the Contract Documents.
 2. Steps: Individual FRP steps, or ASTM A615, deformed, 1/2-inch steel reinforcing rods encased in ASTM D4101, PP; wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Steps shall meet the requirements of OSHA 29 CFR 1910.24. Cast or anchor steps into sidewalls at 12-inch intervals.
 3. Access Hatch:
 - a. Provide channel type frame with integrated drain coupler.
 - b. Provide one 36" x 36" aluminum, hinged single leaf access hatch with integrated safety grate, heavy-duty stainless steel lift assist and locking device.
 - c. Access hatch shall be H20 rated and insulated.
 - d. Access hatch shall be equipped with safety grate system rated for minimum 300 pdf. The safety grate shall conform to OSHA 1910.223 and shall be the color orange.
 - e. Access hatch shall be equipped with 1/8" cushion o-ring gasket and debris gasket.
 - f. Access hatch shall be EJ Group Model H363618912 or approved equal.
 4. Resilient Pipe Connectors: ASTM C923, cast or fitted into structure walls, for each pipe connection.
 5. Pipe Supports: Piping shall be supported at the locations shown on the drawings and as necessary to prevent pipe movement with a two-piece, adjustable, full circle saddle clamp. The clamp shall be manufactured of steel meeting ASTM A36 with a corrosion resistant galvanized finish. The base plate of the pipe support shall be made of 1/4" sheet steel, ASTM A36. Acceptable Manufacturers: Standon Model C92, or approved equal.
 6. Joint Sealants: ASTM C443, rubber gaskets.
 7. Structures shall be watertight. Access hatches shall be sealed watertight with a non-shrinking mortar.

2.14 CONCRETE

- A. General: Cast-in-place concrete complying with ACI 318, ACI 350, and the following:
1. Cement: ASTM C 150, Type II.
 2. Fine Aggregate: ASTM C 33, sand.
 3. Coarse Aggregate: ASTM C 33, crushed gravel.
 4. Water: Potable.
- B. Manhole Channels and Benches: Factory or field formed from concrete. Portland cement design mix, 4000 psi minimum, with 0.45 maximum water/cementitious materials ratio. Include channels and benches in manholes.

1. Channels: Concrete invert, formed to same width as connected piping, with height of vertical sides to three-fourths of pipe diameter. Form curved channels with smooth, uniform radius and slope.
 - a. Invert Slope: 2.5 percent through manhole.
2. Benches: Concrete, sloped to drain into channel.
 - a. Slope: 8 percent.
- C. Ballast and Cleanout Support: Portland cement design mix, 3000 psi minimum, with 0.58 maximum water/cementitious materials ratio.
 1. Reinforcing Fabric: ASTM A1064, steel, welded wire fabric, plain.
 2. Reinforcing Bars: ASTM A 615. Grade 60 deformed steel.

2.15 PROTECTIVE COATINGS

- A. General
 1. Include factory- or field-applied protective coatings to structures with Koppers Bitumastic Super Service Black or approved equal.
- B. Coating
 1. Structures: Two coats exterior and two coats interior surfaces.

2.16 CORROSION-PROTECTION PIPING ENCASEMENT

- A. Encasement for underground metal piping and metal fittings and valves:
 1. Standards: ASTM A 674 or AWWA C105.
 2. Form: Sheet or tube.
 3. Material: LLDPE film of 0.008-inch minimum thickness, or high-density, cross-laminated PE film of 0.004-inch minimum thickness.
 4. Color: Black
 5. Install per manufacturer's written instructions.

PART 3 - EXECUTION

3.1 EARTHWORK

- A. Excavating, trenching, and backfilling are specified in Division 31 Section "Earth Moving."

3.2 GRAVITY SEWER PIPING INSTALLATION

- A. General Locations and Arrangements: Contract Drawing indicate general location and arrangement of underground sanitary sewer piping. Location and arrangement of piping layout take into account design considerations. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.
- B. Install gravity sewer piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for using lubricants, cements, and other installation requirements.
- C. Install manholes for changes in direction for gravity sewer piping unless fittings are indicated. Use fittings for branch connections unless direct tap into existing sewer is indicated.
- D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
- E. Install gravity-flow, nonpressure, drainage piping according to the following:
 - 1. Install piping pitched down in direction of flow, at minimum slope as indicated on the Contract Drawings.
 - 2. Install PVC gravity sewer piping according to ASTM D 2321 and ASTM F 1668.
- F. Clear interior of piping and manholes of dirt and superfluous material as work progresses. Maintain swab or drag in piping, and pull past each joint as it is completed. Place plug in end of incomplete piping at end of day and when work stops.

3.3 FORCE MAIN PIPING INSTALLATION

- A. General: Use pipe, fittings, and joining methods for piping systems according to the following applications.
- B. Transition couplings and special fittings with pressure ratings at least equal to piping pressure rating may be used, unless otherwise indicated.
- C. Do not use unions for underground piping.
- D. Flanges, unions, grooved-end-pipe couplings, and special fittings may be used, instead of joints indicated, on piping in vaults.
- E. When installing pipe under streets or other obstructions that cannot be disturbed, use directional drilling.
- F. Pump station piping shall be the following:
 - 1. PVC, ASTM Pipe: Schedule 80 PVC, with plain ends for solvent cemented joints.

- G. Underground force main piping NPS 3 to NPS 4 shall be the following:
 - 1. PE, AWWA/ASTM pipe; molded PE fittings and heat-fusion joints.
 - 2. PVC AWWA C900 pipe and fittings.
 - 3. Flanged ductile iron pipe and fittings.
- H. Install 2.5-inch to 4-inch Schedule 80 PVC according to ASTM F 1668 and ASTM D 2774.
- I. Install PE pipe according to ASTM D 2774, ASTM F 645, and AWWA C 906.
- J. Install PVC, AWWA pipe according to ASTM F 645 and AWWA M 23
- K. Install ductile iron pipe according to AWWA C600 and AWWA M41.
- L. Bury piping with depth of cover as indicated on the Contract Drawings.
- M. Install underground piping with restrained joints at horizontal and vertical changes in direction. Use restrained-joint piping, anchors, tie-rods and clamps and other supports.

3.4 PIPE JOINT CONSTRUCTION

- A. Join gravity-flow, nonpressure piping according to the following:
 - 1. Join PVC gravity sewer piping according to ASTM D 2321 and ASTM D 3034 for elastomeric-seal joints or ASTM D 3034 for elastomeric-gasket joints.
 - 2. Join dissimilar pipe materials with nonpressure-type, sleeve-type couplings.
- B. Join pressure piping according to the following:
 - 1. Join PVC pump station piping according to ASTM D 2855.
 - 2. Join PE Pipe according to manufacturer's written instructions.
 - 3. Join ductile iron pipe according to AWWA C600 and AWWA M 41.

3.5 VALVE APPLICATIONS

- A. General Application: Use mechanical-joint-end valves for underground installation. Use true union socket end connections or flanged-end valves for installation in vaults.
- B. Drawings indicate valve types to be used. Where specific valve types are not indicated, the following requirements apply:
 - 1. Underground Valve NPS 4: AWWA ductile-iron, nonrising-stem, resilient-seated gate valves with valve box.
 - 2. Use the following for valves in pump station and vaults:
 - a. True union socket end connections.

- b. Gate Valves, NPS 2-4: AWWA, ductile iron, nonrising-stem, resilient-seated gate valves.
3. Relief Valves: Use for force main piping in vaults.
- a. Wastewater Combination Air Valves: To release or admit air.
 - b. Air/Vacuum Wastewater Valve: To release or admit air at pump station.

3.6 DIRECTIONAL DRILLING

- A. Prior to any alterations to work-site, photograph or video tape entire work area, including entry and exit points. One copy of which shall be given to the Authority and one copy to remain with Contractor for a period of one year following the completion of the project.
- B. Survey entire drill path with entry and exit stakes placed in the appropriate locations within the areas indicated on Drawings.
- C. Connect pipe together in one length prior to pull-back operations. Place pipe on pipe rollers before pulling into bore hole with rollers spaced close enough to prevent excessive sagging of pipe.
- D. Drill pilot hole on bore path with no deviations greater than 5% of depth over a length of 100'.
- E. Ream bore hole to a minimum of 25% greater than outside diameter of pipe using the appropriate tools.
- F. Install (pull back) pipe in accordance with manufacturer's recommendations.
- G. Perform directional drilling in accordance with ASTM F1962.

3.7 ANCHORAGE INSTALLATION

- A. Anchorage, General: Install piping with restrained joints. Anchorages and restrained-joint types that may be used include the following:
 - 1. Concrete thrust blocks.
 - 2. Locking mechanical joints.
 - 3. Bolted flanged joints.
 - 4. Heat-fused joints.
 - 5. Solvent welded joints.
- B. Apply full coat of asphalt or other acceptable corrosion-resistant material to surfaces of installed ferrous anchorage devices.

3.8 VALVE INSTALLATION

- A. AWWA Gate Valves: Comply with AWWA C600 and AWWA M44. Install each underground valve with stem pointing up and with valve box.
- B. Install relief valves, piping, and specialties in accordance with AWWA C512, the manufacturer's written instructions and the requirements of the authorities having jurisdiction.

3.9 MANHOLE INSTALLATION

- A. General: Form bottom of excavation clean and smooth to correct elevation allowing for leveling of base.
- B. Place stone leveling bed and compact to 95 percent of maximum dry density.
- C. Set level and plumb.
- D. Form continuous concrete channels and benches between inlets and outlet.
- E. Set tops of frames and covers flush with finished surface of manholes that occur in pavements. Set tops 3 inches above finished surface elsewhere unless otherwise indicated.
- F. Apply coatings in accordance with manufacturer's recommendations.
- G. Install manhole-cover inserts in frame and immediately below cover.

3.10 CONCRETE PLACEMENT

- A. Place cast-in-place concrete according to ACI 318.

3.11 CONCRETE VAULT INSTALLATION

- A. Install precast concrete vaults according to ASTM C891.
- B. Inspect structures for damage before and after backfilling. All joint shall be visually inspected for water tightness by infiltration and leak testing.

3.12 CONNECTIONS

- A. Connect non-pressure, gravity-flow drainage piping to building's sanitary building drains.
- B. Make connections to existing piping and underground manholes.
 - 1. Use commercially manufactured mechanical link seals for water-tight connections.
 - 2. Protect existing piping and manholes to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.

3.13 CLOSING ABANDONED SANITARY SEWER SYSTEMS

- A. Abandoned Piping: Close open ends of abandoned underground piping indicated to remain in place. Include closures strong enough to withstand hydrostatic and earth pressures that may result after ends of abandoned piping have been closed. Use either procedure below:
 - 1. Close open ends of piping with threaded metal caps, plastic plugs, or other acceptable methods suitable for size and type of material being closed. Do not use wood plugs.
- B. Abandoned Manholes/Septic Tanks/Structures: Pump any liquids within the structure and properly dispose of. Excavate around manhole as required and use either procedure below:
 - 1. Remove manhole and close open ends of remaining piping.
 - 2. Remove top of manhole down to at least 48 inches below final grade. Bust apart bottom of structure to allow for drainage. Fill to within 12 inches of top with stone, rubble, gravel, or compacted dirt. Fill to top with concrete.
- C. Backfill to grade according to Division 31 Section "Earth Moving."

3.14 IDENTIFICATION

- A. Materials and their installation are specified in Division 31 Section "Earth Moving." Arrange for installation of green warning tapes directly over piping and at outside edges of underground manholes.
 - 1. Use detectable warning tape over nonferrous piping and over edges of underground manholes.

3.15 FIELD QUALITY CONTROL

- A. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.
 - 1. Submit separate report for each system inspection.
 - 2. Defects requiring correction include the following:
 - a. Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
 - c. Damage: Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.
 - e. Exfiltration: Water leakage from or around piping.
 - 3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
 - 4. Reinspect and repeat procedure until results are satisfactory.

- B. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
1. Do not enclose, cover, or put into service before inspection and approval.
 2. Test completed piping systems according to requirements of authorities having jurisdiction.
 3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
 4. Submit separate report for each test to authorities having jurisdiction and the Owner.
 5. Gravity Sewer Piping Hydrostatic Tests: Test sanitary sewerage according to requirements of authorities having jurisdiction and the following:
 - a. Fill sewer piping with water. Test with pressure of at least 10-foot head of water, and maintain such pressure without leakage for at least 15 minutes.
 - b. Close openings in system and fill with water.
 - c. Purge air and refill with water.
 - d. Disconnect water supply.
 - e. Test and inspect joints for leaks.
 6. Gravity Sewer Piping Air Tests: Test sanitary sewerage according to requirements of authorities having jurisdiction, UNI-B-6, and the following:
 - a. Option: Test plastic gravity sewer piping according to ASTM F 1417.
 7. Pressure Piping Hydrostatic Tests: Before testing, backfill or otherwise brace the pipe barrels between joints to prevent movement under pressure.
 - a. After the force main piping has been installed and before the pipe joints, fittings, valves, or other appurtenances are covered, expel and test all force main piping for two hours at 150 psi to ensure the pipes are watertight.
 - b. Remove all defective pipe, fittings, valves and appurtenances and replace with sound pipe, fittings, valves, or appurtenances, and repair all joints showing visible leaks until tight and repeat the test until satisfactory to the Authority.
 8. Manholes: Perform hydraulic test according to ASTM C 969.
- C. Leaks and loss in test pressure constitute defects that must be repaired.
- D. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

3.16 CLEANING

- A. Clean dirt and superfluous material from interior of piping. Flush with potable water.

END OF SECTION

SECTION 22 13 44

SYSTEM SEWAGE PUMPING

PART 1 - GENERAL

1.1 SUMMARY

- A. The work specified in this section includes furnishing all labor, materials, equipment and incidentals required, install and field test, complete and ready to operate grinder pumps as shown on the Contract Drawings and specified herein.

1.2 QUALITY ASSURANCE

- A. Regulatory Requirements
 - 1. All materials and installation shall be in compliance with applicable codes, AWWA standards and in accordance with manufacturer's recommendations.

1.3 SUBMITTALS

- A. Pump Test Report: Prior to pump delivery submit for approval certified copies of factory run pump performance test. Characteristics of pumps may have a tolerance of plus 10 percent of rated capacity at rated head or plus 5 percent of rated head capacity. No minus tolerance will be acceptable. Give the Authority seven days advance notice of performance test date.
- B. Shop Drawings: Submit integrated shop drawings for the pump systems illustrating the mechanical and electrical equipment and components specified herein.
 - 1. Product Data: For each mechanical and electrical component, include manufacturers descriptive literature and product specifications, performance and capacity rating curves, and other submittal materials as required to verify that the proposed products conform to the quality and function of the specified products.
 - a. Identification: Clearly indicate on submissions exactly which product is being submitted for approval.
 - b. Equipment Characteristics: Provide gear and bearing ratings, complete motor data, service factors, shaft diameters, coupling type, and weights of principal parts and assembled equipment.
 - c. Manufacturer: Include the catalog name, company name, address, and telephone number for each product submitted.
 - 2. Equipment Drawings: Submit completely dimensioned plan, elevations, and cross-sections of system equipment and sub-assemblies.
 - 3. Layout Drawing: Submit completely dimensioned drawing of pump assembly that includes anchor bolt size and patterns, supports, installation notes, and other pertinent setting details.
 - 4. Wiring Diagrams: Submit complete interconnecting wiring diagrams and schedules for electrical apparatus showing numbered wiring terminals in the pump control panels conforming to NEMA

ICS-1-101. Identify field device terminals, wire number, wire sizes, control and power wire types, and interfaced elements.

- C. Operation, Maintenance and Installation Manuals: The submission and approval of the O & M manual is considered to be an integral part of furnishing and delivery of the system equipment. Include the following elements in the manual.
1. Installation sequence and instructions.
 2. Functional description of pumping system for each mode of operation of equipment.
 - a. Interlocked operation.
 - b. Alarms and failsafe features.
 - c. Interfaced equipment operation and control.
 3. Exploded view drawings and illustrations with sequence description for assembly and disassembly of equipment.
 4. Comprehensive parts and materials list for each equipment element indicating manufacturer and manufacturer's identification number. Include name, address, and telephone number of sales and service office for each major equipment item (i.e. pumps, drives, motors, etc.).
 5. Schedules of recommended spare parts to be stocked, including part number, inventory quantity, and ordering information.
 6. Performance rating and nameplate data for each major system component.
 7. Procedures for starting, operating, adjusting, calibrating, testing, and shutting-down system equipment.
 8. Emergency operating instructions and trouble-shooting guide.
 9. Schedule of routine maintenance requirements and procedures, and preventative maintenance instructions required to insure satisfactory performance and equipment longevity.
 10. Maintenance instructions for extended out-of-service periods.
 11. Schedule of lubrication requirements including lubricant type, service interval, and lubrication point.
 12. Field verified power and control wiring shop drawings. Submit the approved shop drawings in each manual. After initial start-up and operation, correct these drawings to reflect any required field changes and submit the required copies for inclusion in the manuals.
- D. Installation Certificate: Submit a certificate from the manufacturer, or from the manufacturer's qualified, factory-authorized representative, stating that the installed equipment has been inspected, adjusted, approved, and certified to be satisfactory prior to initial mechanical performance testing.

1.4 REFERENCE STANDARDS

- A. ASTM: American Society for Testing and Materials.
- B. ANSI: American National Standard Institute.
- C. AISI: American Iron and Steel Institute.
- D. ASME: American Society of Mechanical Engineers.
- E. Hydraulic Institute of Standards.

- F. NEC: National Electrical Code.
- G. OSHA: Occupational Safety and Health Administration.
- H. UL: Underwriters Laboratory.

1.5 QUALITY ASSURANCE

- A. Pump Performance: Pumps shall be designed and constructed in accordance with standards of the hydraulic institute. The efficiency of the pumps, when operating under conditions of the specified capacities and heads, shall be as near peak efficiency as practicable.
- B. Manufacturer's Responsibilities: Obtain pumping equipment, motors, motor starters, pump controls and appurtenances from the pump manufacturer whose responsibility shall be to ensure that the pumping equipment is properly coordinated and operated in accordance with these Specifications.
 - 1. The pump control panel shall be constructed at the pump manufacturer's facilities. The pump manufacturer shall be an underwriters laboratories (UL) panel builder. The control panel shall bear a serialized UL label for enclosed industrial control panels. A UL listing for open style industrial control panels or an assembly of listed or recognized components shall not be acceptable. The control panel shall meet all UL and Joint Industrial Council (JIC) standards.
- C. Factory System Test: The pumps, motors, and control system shall be set up and tested as a unit at the pump manufacturer's facility prior to shipment.
 - 1. Recordings of the test shall substantiate the correct performance of the equipment at the design head, capacity, suction lift, speed and horsepower as herein specified. Tests shall be certified by a registered New York State Professional Engineer. Certified test reports shall be submitted to the NYSTA's Representative for approval prior to shipment.

PART 2 - PRODUCTS

2.1 SEWAGE PUMP STATION SYSTEMS

- A. Existing Pump Station (PS-1) Pump:
 - 1. Manufacturer: Goulds Pumps Inc. Model 3885, WE01512H
 - 2. Pump Characteristics:
 - a. Number of pumps: 1
 - b. Liquid: Raw wastewater
 - c. Design Capacity: 92 GPM
 - d. Design Total Head: 42 FT
 - e. Discharge Size: 1 ½-inch NPT
 - f. Motor Horsepower: ½ HP, 3500 RPM
 - g. Motor Electric: Single Phase 208V
 - h. Hardware: Stainless Steel
 - i. "O" Rings: Nitrile Rubber

- j. Maximum Liquid Temp: 140° F - intermittent
3. Pump Unit:
- a. Pump casings and seal housing: Cast iron
 - b. Impeller: Grinder, cast iron
 - c. Pump Shaft: Stainless steel, Type SS 304
 - d. Shaft Bearings: Upper 6201 and lower 6303 angular contact ball bearing
 - e. Pump Motor: Stator, rotor and bearings shall be mounted in a sealed submersible type housing. Motor shall have cooling characteristics suitable to permit continuous operation in a totally, partially or non-submerged condition.
 - f. Surface Treatment: Painted with a two-component epoxy.
 - g. Provide the following spare parts (packaged and labeled for storage):
 - 1. One complete pump matching make and model of installed pump.
- B. New Grinder Pump Station (PS-2) Pumps
- 1. Manufacturer: Model NP 3153 SH 3 ~ 276 manufactured by Xylem (Flygt) 1 International Drive, Rye Brook, NY 10573, or approved equal.
 - 2. Pump Characteristics:
 - a. Number of Pumps: 2
 - b. Liquid: Raw wastewater
 - c. Design Capacity: 194 GPM – 1 pump operating / 220 GPM – 2 pumps operating
 - d. Design Total Head: 120 Ft. – 1 pump operating / 140 Ft. – 2 pumps operating
 - e. Minimum Solids Size: 4-inch
 - f. Discharge Size: 4-inch, ANSI # 150
 - g. Motor Horsepower: 17 HP
 - h. Motor Electric: 3 x 208 V
 - 3. Pump Unit:
 - a. Pump casting and seal housing: Cast iron, grey – ASTM 3513
 - b. Impeller: Hard-iron™ (ASTM A-532 (Alloy III A) 25% chrome cast iron), dynamically balanced, semi-open, multi-vane, back swept, screw shaped, non-clog design with mechanically self-cleaned leading edges.
 - c. Pump Shaft: Stainless steel, AISI 431.
 - d. Shaft Bearings: Motor bearing shall be a two row angular contact ball bearing to handle radial loads. The lower bearing shall be a two row angular contact ball bearing to handle the thrust and radial forces.
 - e. Pump Motor: The pump motor shall be a NEMA B design, induction type with a squirrel cage rotor, shell type design, housed in an air filled, watertight chamber. The motor shall be designed for continuous duty while handling pumped media of up to 104° F. The motor shall be capable of no less than 30 evenly spaced starts per hour. The rotor bars and short circuit rings shall be made of aluminum. Three thermal switches shall be embedded in the stator end coils, one per phase winding, to monitor the stator temperature. These thermal switches shall be used in conjunction with and

supplemental to external motor overload protection and shall be connected to the motor control panel. The junction chamber shall be sealed off from the stator housing and shall contain a terminal board for connection of power and pilot sensor cables using threaded compression type terminals. The motor and the pump shall be produced by the same manufacturer.

The motor service factor (combined effect of voltage, frequency and specific gravity) shall be 1.15. The motor shall be designed for continuous operation in up to a 40° C ambient and shall have a NEMA Class B maximum operating temperature rise of 80° C.

- f. Surface Treatment: Factory applied spray coating of acrylic dispersion zinc phosphate primer with a polyester resin paint finish.
- g. Pump Accessories: Provide the following accessories with each pumping unit:
 - 1. Stainless Steel cable of adequate strength and length to permit raising of the pump unit for inspection and removal.
 - 2. Stainless Steel guide rails
 - 3. Stainless steel upper guide rail brackets.
 - 4. Pump motoring plate with discharge elbow and lower guide rail support brackets.
 - 5. All accessory stainless-steel metal parts shall be 300 series stainless steel.
- h. Provide the following spare parts:
 - 1. One complete pump matching make and model of installed pumps.

2.2 ELECTRICAL CONTROLS FOR PUMP STATIONS

- A. A NEMA 4X fiberglass control panel shall be furnished with the pumping unit to be installed, as shown on the plans. The control panel enclosure shall have maximum dimensions of 24" x 24" x 8" Deep (internal dimensions) and molded of glass reinforced polyester resins which are chemically resistant to corrosive atmospheres. The resin system shall be pigmented to impart a gray color to the enclosure and be resistant to ultraviolet light. The resin system also shall include a flame retardant to obtain a flammability rating which meets UL 94V-0. Heat distortion temperature shall be 350 degrees Fahrenheit. The enclosure shall be of one-piece, weatherproof construction with smooth, rounded corners and shall be constructed to have a smooth exterior and interior. The enclosure shall be fitted with a closed cell neoprene gasketed cover. The enclosure shall be provided with back panel mounting provisions. The cover shall be hinged with a heavy-duty corrosion resistant stainless-steel piano hinge. The cover shall be lockable by means of two (2) high quality combination stainless steel latches and padlock hasps. The enclosure shall be provided with external mounting feet on the top and bottom of the enclosure. These mounting feet shall be of fiberglass and molded as an integral part of the enclosure. The back panel shall be a minimum of .080" aluminum and held in place by four (4) #10 screws, which will mate to four (4) threaded standoffs, which are molded into the enclosure.
- B. The panel shall include main disconnect breakers, alarm circuit fuse, control circuit fuse, I.E.C. rated motor contactors, pump-run timer, pump hand-off-auto switches (momentary in the hand position), pump run lights, seal leak lights (double seal pumps only), override relay, terminal blocks, ground lug (rated for 6GA, to 14 GA wire) and all necessary wiring and brackets. The control panel shall be equipped with a red alarm light. The lens shall be mounted on the front of the enclosure. The light shall have an engraved aluminum nameplate stating, "High Water." The light shall have a bright glow during high water conditions. The alarm light will go out when the water level drops. All internal

wiring shall be neat and color coded. Each wire shall be a different color or stripe (except for ground), and all incoming wire shall terminate into a box clamp type terminal block (except incoming power.) All wires shall be minimum 14GA, type TEW rated for 105° C. A schematic diagram (showing wire color) shall be permanently fastened to the inside of the enclosure. The control panel shall be UL listed as an assembly.

- C. A magnetic contactor shall be provided for starting each motor and a manual reset Klixon overload shall be provided to protect each pump against excessive over-current condition.
- D. An alternating relay, or a pump sequencing relay (triplexor) system shall be supplied to alternate pumps on successive cycles and an override relay shall be used to start multiple pumps if inflow is greater than one pump can handle, and shall start the second or next pump if the first pump fails (if applicable). The override relay shall also actuate the alarm.
- E. Additional panel features to be provided as follows:
 - 1. Elapsed time meters (1 each/pump)
 - 2. A red flashing light alarm shall be mounted on the outside of the panel
 - 3. Auxiliary high-level alarm contacts
 - 4. 30-Watt Condensation Heater
 - 5. Convenience outlet
 - 6. Full inner door
 - 7. Low/High Voltage Protection
 - 8. Panel meters 1 each/pump, to be mounted on the inner door with voltmeter and ammeter by Crompton Instruments, or approved equal.

2.3 SUMP LEVEL CONTROLS

- A. Controls: Suspended float controls, normally open contact configuration or approved equal. The pump on, pump off and lag pump/high water alarm levels shall be controlled by non-mercury containing switches, each sealed in a solid polyurethane float with the levels set as shown on the Drawings.
- B. A single alarm switch shall be used to actuate the lag pump on and high-water alarm.
- C. PS-1: On sump rise lower switch shall first be operated. On rising level, the middle switch shall next operate and start the pump. With pump operating, sump level will lower to low switch turn-off setting, and pump shall stop. If sump level continues to rise when a pump is operating, the highest switch will rise, and an alarm shall signal.
- D. PS-2: On sump rise lower switch shall first be operated. On rising level, the middle switch shall next operate and start the first pump. With this pump operating, sump level will lower to low switch turn-off setting, and pump shall stop. The alternating relay shall index on stopping of pump so that the succeeding pump shall start on next operation. If sump level continues to rise when a pump is operating, the override switch shall energize and start the next pump. Both pumps shall operate together until low level switch turns off both pumps. When both pumps are operating, an alarm shall energize. If one pump should fail for any reason, the second pump shall operate on the override control, and an alarm shall signal.

- E. All controls shall be mounted to the pump discharge pipe for easy removal to service or replaced components.
- F. Float Control system shall be suitable for use submerged in effluent.

2.4 PUMP LIFT-OUT SYSTEM

- A. The piping from each pump shall be designed to allow for pump lift-out and replacement by raising or lowering the pump on guide rails extending the depth of the basin. An upper and lower guide rail support casting shall be permanently secured to the structure's wall and bottom respectively, to position two inter-connecting guide pipes for each pump. The guide rails shall be scheduled 40 stainless steel. A guide bracket shall be bolted to each pump with yokes to fit around the rails and guide the pump into its proper operating position. A lifting cable/chain shall be attached to the pump lifting bracket and be of proper length to reach from the bottom to the top of the structure where it shall be attached and readily available. The guide yokes shall have ample bearing surface to prevent binding and the bracket and upper and lower supports shall be of stainless steel to prevent corrosion.

2.5 PUMP STATION (PS-2) AND VALVE CHAMBER

- A. Description: ASTM C478, 4,000 psi min. precast, reinforced concrete, of depth indicated, with provisions for sealant joints.
- B. Design Loading: AASHTO HS-20-44.
- C. Structures shall be watertight. Structures lift holes and access hatches shall be sealed watertight with non-shrinking mortar.
- D. Configuration: Provide closed chamber with dimensions and interior volume as indicated on the Contract Drawings.
- E. Ballast: Increase thickness of precast sections or add concrete to base section, as required to prevent flotation.
- F. Joint Sealant: C443, rubber gaskets.
- G. Pipe Connections: Resilient pipe connections: ASTM C 923, cast or fitted into the structure walls for each pipe connection.
- H. Protective Coating: Include factory or field applied protective coatings to pump station chamber and valve pit. Two coats exterior and two coats interior surfaces. Use Koppers Bitumastic Super Service Black or approved equal.
- I. Access Hatch:
 - 1. Pump Station Chamber:
 - a. Provide channel type frame with integrated drain coupler.

- b. Provide one 42" x 42" aluminum, hinged single leaf access hatch with integrated safety grate, heavy-duty stainless steel lift assist and locking device.
 - c. Access hatch shall be H20 rated.
 - d. Access hatch shall be equipped with safety grate system rated for minimum 300 psf. The safety grate shall conform to OSHA 1910.23 and shall be the color orange.
 - e. Access hatch shall be equipped with 1/8" cushion o-ring gasket, debris gasket and odor suppression/rim seal gasket.
 - f. Access hatch shall be EJ Group Model H363618912 or approved equal.
2. Valve Pit
- a. Provide channel type frame with integrated drain coupler.
 - b. Provide one 36" x 36" aluminum, hinged single leaf access hatch with integrated safety grate, heavy-duty stainless-steel lift assist and locking device.
 - c. Access hatch shall be H20 rated and insulated.
 - d. Access hatch shall be equipped with safety grate system rated for minimum 300 psf. The safety grate shall conform to OSHA 1910.23 and shall be the color orange.
 - e. The access hatch shall be equipped with 1/8" cushion o-ring gasket and debris gasket.
 - e. Access hatch shall be EJ Group, Inc., Model H363618912, or approved equal.
- J. Pipe Supports: Piping shall be supported at the locations shown on the drawings and as necessary to prevent pipe movement with a two-piece, adjustable, full circle saddle clamp. The clamp shall be manufactured of steel meeting ASTM A36 with a corrosion resistant galvanized finish. The base plate of the pipe support shall be made of ¼" sheet steel, ASTM A36. Acceptable Manufacturers: Standon Model C92, or approved equal.
- K. Appurtenances:
- 1. Service weight cast iron vent: ASTM A 74; coat pipe and fittings inside and outside with an asphaltic coating at least 1 mil. in thickness.
 - 2. Insect Screen: #24 stainless steel insect screen fastened to 1/4" stainless steel wire mesh.

PART 3 – EXECUTION

3.1 EARTHWORK

- A. Excavating, trenching, and backfilling are specified in Division 31 Section "Earth Moving".

3.2 INSTALLATION

- A. All equipment shall be installed in accordance with the Contract Documents and the manufacturer's recommendations.

3.3 PUMP STATION (PS-2) AND VALVE PIT INSTALLATION

- A. General: Form bottom of excavation clean and smooth to correct elevation allowing for leveling of base.
- B. Place stone leveling bed and compact to 95 percent of maximum dry density.

- C. Set level and plumb.
- D. Place and form concrete as indicated on the Contract Drawings.
- E. Set tops of frames and covers 3 inches above finished surface unless otherwise indicated.
- F. Apply coatings in accordance with manufacturer's recommendations.

3.4 CONCRETE PLACEMENT

- A. Place cast-in-place concrete according to ACI 318.

3.5 MANUFACTURER'S FIELD SERVICES

- A. General Requirements: Provide the services of a qualified, factory-authorized, manufacturer's representative for the required man-days as specified hereunder. A man-day is defined as eight, on-site, working hours.
- B. Initial Operation: Upon notification of completion of the pumping systems equipment installation, provide one man-day for equipment installation inspection, certification, start-up, and corrective adjustments. Coordinate work with the Authority.
 - 1. Start-up and shut-down procedures.
 - 2. Equipment adjustments and optimum settings.
 - 3. Replacement of components.
 - 4. Routine cleaning and maintenance.
 - 5. Supervision of operating personnel during total system operation.
 - 6. Preventative maintenance scheduling and procedures.

3.6 SPARE PUMPS

- A. After start-up is complete provide the Authority with one (1) spare pump/motor assemblies of the same make and model number as used in pump station installations.

3.7 CONTRACTOR TO TAKE SPECIAL NOTE:

- A. The Contractor will NOT be allowed to substitute certain manufacturers' products after partial completion of the work. ALL pumps, control systems, lift-out rail systems, and sump level controls shall be of the same manufacture and model and number.

3.8 FIELD QUALITY CONTROL

- A. Refer to Specification Section 22 13 13 – Facility Sanitary Sewers for required testing of structures and piping.

END OF SECTION

ITEM 627.0026 – 25 ELECTRICAL

1. DESCRIPTION:

- 1.01 Furnish all labor, materials, equipment and services necessary to complete the work as indicated on the Contract Plans and the attached Specification Summary.
- 1.02 All work shall conform to the requirements specified in Part 1 – General, of the Sections listed.

2. MATERIALS:

- 2.01 The materials shall be as specified in Part 2 – Products, of the Sections listed.

3. CONSTRUCTION DETAILS:

- 3.01 The construction details shall be as specified on Part 3 – Execution, if the Sections listed.

4. METHOD OF MEASUREMENT:

- 4.01 This item shall be measured for payment on a lump sum basis for the work completed in accordance with the Contract Documents and as directed by the Engineer.

5. BASIS OF PAYMENT:

- 5.01 Payment for this item shall be made at the lump sum bid price bid. The lump sum price bid shall include cost of furnishing all labor, material, equipment and appliances necessary to complete the work as indicated on the Contract Plans and as specified herein in the Sections listed.
- 5.02 Detailed Estimate:
 - A. Before the first certificate of payment is issued for the work under this item, submit a detailed estimate of quantities and prices for all materials, labor, and other items included under this item, which shall aggregate the contract lump sum price bid for this item. Prepare the detailed estimate in the same sequence as the Sections listed.
 - B. The detailed estimate shall be supported by such evidence, including certified copies of subcontracts, as the Engineer may require.
 - C. The detailed estimate must be approved by the Engineer who may revise it as, in his/her reasonable judgment, is necessary to make the various item conform to their true values. The value of each certificate of payment will be based on the approved detailed estimate.
- 5.03 Monthly payments will be made for this item in proportion to the total amount of work completed.

ITEM 627.0026 – 25 ELECTRICAL

1. SPECIFICATION SUMMARY

1.01 This Item includes the following specifications:

- A. Section 260519 – Low-Voltage Electrical Power Conductors and Cables
- B. Section 260526 – Grounding and Bonding for Electrical Systems
- C. Section 260533 – Raceways and Boxes for Electrical Systems
- D. Section 260543 – Underground Ducts and Raceways for Electrical Systems
- E. Section 260544 – Sleeve and Sleeve Seals for Electrical Raceways and Cabling
- F. Section 260553 – Identification for Electrical Systems
- G. Section 262913 – Enclosed Controllers

1.02 This item shall include, but not be limited to, the following:

- A. Conductors, conduit, circuit breakers, controls, grounding.

END OF ITEM 627.0026--25

SECTION 26 05 19

LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL (NOT USED)

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

- A. Copper Conductors: Comply with NEMA WC 70/ICEA S-95-658.
- B. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type THHN-2-THWN-2, Type XHHW-2, and Type SO.
- C. Multiconductor Cable: Comply with NEMA WC 70/ICEA S-95-658 for Type SO with ground wire.

2.2 CONNECTORS AND SPLICES

- A. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

2.3 SYSTEM DESCRIPTION

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

- A. Feeders: Type THHN-2-THWN-2 or XHHW-2, single conductors in raceway. Use Type THHN-2-THWN-2 for feeders smaller than No. 2 AWG, use Type XHHW-2 for feeders No. 2 AWG and larger.
- B. Branch Circuits: Type THHN-2-THWN-2, single conductors in raceway.

3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
- B. The use of NM cable is prohibited.
- C. Complete raceway installation between conductor and cable termination points according to Section 26 05 33 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.
- D. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- E. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- F. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.

3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
 - 1. Use oxide inhibitor in each splice, termination, and tap for aluminum conductors.
- C. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches of slack.

3.5 IDENTIFICATION

- A. Identify and color-code conductors and cables according to Section 26 05 53 "Identification for Electrical Systems."
- B. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

3.6 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 26 05 44 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

3.7 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.

END OF SECTION

SECTION 26 05 26

GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 QUALITY ASSURANCE

- A. Comply with UL 467 for grounding and bonding materials and equipment.

PART 2 - PRODUCTS

2.1 CONDUCTORS

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors: Size conductors per NFPA 70, unless noted otherwise.
 - 1. Solid Conductors: ASTM B 3.
 - 2. Stranded Conductors: ASTM B 8.
 - 3. Tinned Conductors: ASTM B 33.
- C. Grounding Bus: Predrilled rectangular bars of annealed copper, 1/4 by 4 inches in cross section, with 9/32-inch holes spaced 1-1/8 inches apart. Stand-off insulators for mounting shall comply with UL 891 for use in switchboards, 600 V and shall be Lexan or PVC, impulse tested at 5000 V.

2.2 CONNECTORS

- A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
- B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy.
- C. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.
- D. Bus-Bar Connectors: Mechanical type, cast silicon bronze, solderless compression -type wire terminals, and long-barrel, two-bolt connection to ground bus bar.

PART 3 - EXECUTION

3.1 APPLICATIONS

- A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger unless otherwise indicated.
- B. Underground Grounding Conductors: Install bare tinned-copper conductor, No. 2/0 AWG minimum.
 - 1. Bury at least 24 inches below grade.
 - 2. Duct-Bank Grounding Conductor: Bury 12 inches above duct bank when indicated as part of duct-bank installation.

3.2 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.

3.3 INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.
 - 1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
 - 2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install bonding so vibration is not transmitted to rigidly mounted equipment.
 - 3. Use exothermic-welded connectors for outdoor locations; if a disconnect-type connection is required, use a bolted clamp.

END OF SECTION

SECTION 26 05 33

RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 DEFINITIONS

- A. GRC: Galvanized rigid steel conduit.

PART 2 - PRODUCTS

2.1 METAL CONDUITS, TUBING, AND FITTINGS

- A. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. GRC: Comply with ANSI C80.1 and UL 6.
- C. EMT: Comply with ANSI C80.3 and UL 797.
- D. FMC: Comply with UL 1; zinc-coated steel.
- E. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.
- F. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 514B.
 - 1. Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 886 and NFPA 70.
 - 2. Fittings for EMT:
 - a. Material: Steel.
 - b. Type: Setscrew or compression.
 - 3. Expansion Fittings: PVC or steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.
- G. Joint Compound for GRC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2.2 METAL WIREWAYS AND AUXILIARY GUTTERS

- A. Description: Sheet metal, complying with UL 870 and NEMA 250, Type 1 unless otherwise indicated, and sized according to NFPA 70.

1. Metal wireways installed outdoors shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Fittings and Accessories: Include covers, couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- C. Wireway Covers: Hinged type unless otherwise indicated.
- D. Finish: Manufacturer's standard enamel finish.

2.3 NONMETALLIC WIREWAYS AND AUXILIARY GUTTERS

- A. Listing and Labeling: Nonmetallic wireways and auxiliary gutters shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Description: Fiberglass polyester, extruded and fabricated to required size and shape, without holes or knockouts. Cover shall be gasketed with oil-resistant gasket material and fastened with captive screws treated for corrosion resistance. Connections shall be flanged and have stainless-steel screws and oil-resistant gaskets.
- C. Fittings and Accessories: Couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings shall match and mate with wireways as required for complete system.

2.4 BOXES, ENCLOSURES, AND CABINETS

- A. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- B. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL514A.
- C. Cast-Metal Outlet and Device Boxes: Comply with NEMA FB 1, ferrous alloy, Type FD, with gasketed cover.
- D. Nonmetallic Outlet and Device Boxes: Comply with NEMA OS 2 and UL514C.
- E. Luminaire Outlet Boxes: Nonadjustable, designed for attachment of luminaire weighing 50 lb. Outlet boxes designed for attachment of luminaires weighing more than 50 lb shall be listed and marked for the maximum allowable weight.
- F. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.
- G. Cast-Metal Access, Pull, and Junction Boxes: Comply with NEMA FB 1 and UL 1773, galvanized, cast iron with gasketed cover.

- H. Box extensions used to accommodate new building finishes shall be of same material as recessed box.
- I. Device Box Dimensions: 4 inches by 2-1/8 inches by 2-1/8 inches deep.
- J. Gangable boxes are allowed.
- K. Hinged-Cover Enclosures: Comply with UL 50 and NEMA 250, Type 1 with continuous-hinge cover with flush latch unless otherwise indicated.
 - 1. Nonmetallic Enclosures: Plastic.
 - 2. Interior Panels: Steel; all sides finished with manufacturer's standard enamel.
- L. Cabinets:
 - 1. NEMA 250, Type 1 galvanized-steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
 - 2. Hinged door in front cover with flush latch and concealed hinge.
 - 3. Key latch to match panelboards.
 - 4. Metal barriers to separate wiring of different systems and voltage.
 - 5. Accessory feet where required for freestanding equipment.
 - 6. Nonmetallic cabinets shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
 - 1. Exposed Conduit: GRC.
 - 2. Concealed Conduit, Aboveground: GRC.
 - 3. Underground Conduit: Refer to Specification Section 26 05 43 – “Underground Ducts And Raceways For Electrical Systems”
 - 4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
 - 5. Boxes and Enclosures, Aboveground: NEMA 250, Type 4X.
- B. Indoors: Apply raceway products as specified below unless otherwise indicated:
 - 1. Exposed, Not Subject to Physical Damage: EMT.
 - 2. Exposed and Subject to Physical Damage: GRC. Raceway locations include the following:
 - a. Mechanical rooms and utility rooms.

3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations.
 4. Damp or Wet Locations: GRC .
 5. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4X nonmetallic in kitchens and damp or wet locations.
- C. Minimum Raceway Size: 1/2-inch trade size.
- D. Raceway Fittings: Compatible with raceways and suitable for use and location.
1. GRC: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
 2. EMT: Use setscrew or compression, steel fittings. Comply with NEMA FB 2.10.
 3. Flexible Conduit: Use only fittings listed for use with flexible conduit. Comply with NEMA FB 2.20.
- E. Do not install aluminum conduits, boxes, or fittings in contact with concrete or earth.
- F. Install surface raceways only where indicated on Drawings.

3.2 INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NECA 102 for aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
- B. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- C. Complete raceway installation before starting conductor installation.
- D. Arrange stub-ups so curved portions of bends are not visible above finished slab.
- E. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches of changes in direction.
- F. Conceal conduit and EMT within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines. Do not install EMT in grout.
- G. Support conduit within 12 inches of enclosures to which attached.
- H. Exposed conduit in finished areas is not permitted.
- I. Raceways Embedded in Slabs:

1. Run conduit larger than 1-inch trade size, parallel or at right angles to main reinforcement. Where at right angles to reinforcement, place conduit close to slab support. Secure raceways to reinforcement at maximum 10-foot intervals.
 2. Arrange raceways to cross building expansion joints at right angles with expansion fittings.
 3. Arrange raceways to keep a minimum of 1-inch of concrete cover in all directions.
 4. Do not embed threadless fittings in concrete unless specifically approved by the Authority's Representative for each specific location.
- J. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- K. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors including conductors smaller than No. 4 AWG.
- L. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch trade size and insulated throat metal bushings on 1-1/2-inch trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.
- M. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.
- N. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.
- O. Cut conduit perpendicular to the length. For conduits 2-inch trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.
- P. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb tensile strength. Leave at least 12 inches of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.
- Q. Install raceway sealing fittings at accessible locations according to NFPA 70 and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings according to NFPA 70.
- R. Install devices to seal raceway interiors at accessible locations. Locate seals so no fittings or boxes are between the seal and the following changes of environments. Seal the interior of all raceways at the following points:
1. Where conduits pass from warm to cold locations, such as boundaries of heated spaces.
 2. Where an underground service raceway enters a building or structure.
 3. Where otherwise required by NFPA 70.

- S. Comply with manufacturer's written instructions for solvent welding RNC and fittings.
- T. Flexible Conduit Connections: Comply with NEMA RV 3. Use a maximum of 72 inches of flexible conduit for recessed and semirecessed luminaires, equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
 - 1. Use LFMC in damp or wet locations subject to severe physical damage.
 - 2. Use LFMC in damp or wet locations not subject to severe physical damage.
- U. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to top of box unless otherwise indicated.
- V. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall. Prepare block surfaces to provide a flat surface for a raintight connection between box and cover plate or supported equipment and box.
- W. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.
- X. Locate boxes so that cover or plate will not span different building finishes.
- Y. Support boxes of three gangs or more from more than one side by spanning two framing members or mounting on brackets specifically designed for the purpose.
- Z. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.

3.3 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 26 05 44 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

3.4 PROTECTION

- A. Protect coatings, finishes, and cabinets from damage and deterioration.
 - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.

END OF SECTION

SECTION 26 05 43

UNDERGROUND DUCTS AND RACEWAYS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 DEFINITIONS

- A. Trafficways: Locations where vehicular or pedestrian traffic is a normal course of events.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings:
 - 1. Factory-Fabricated Handholes and Boxes Other Than Precast Concrete:
 - a. Include dimensioned plans, elevations, and fabrication and installation details.
 - b. Include duct entry provisions, including locations and duct sizes.
 - c. Include cover design.

1.3 FIELD CONDITIONS

- A. Interruption of Existing Electrical Service: Do not interrupt electrical service to facilities occupied by the Authority or others unless permitted under the following conditions, and then only after arranging to provide temporary electrical service according to requirements indicated:
 - 1. Notify the Authority no fewer than two days in advance of proposed interruption of electrical service.
 - 2. Do not proceed with interruption of electrical service without the Authority written permission.
- B. Ground Water: Assume ground-water level is 36 inches below ground surface unless a higher water table is noted on Drawings.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS FOR DUCTS AND RACEWAYS

- A. Comply with ANSI C2.

2.2 CONDUIT

- A. Rigid Steel Conduit: Galvanized. Comply with ANSI C80.1.

- B. RNC: NEMA TC 2, Type EPC-40-PVC and Type EPC-80-PVC, UL 651, with matching fittings by same manufacturer as the conduit, complying with NEMA TC 3 and UL 514B.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Coordinate layout and installation of conduits with final arrangement of other utilities, site grading, and surface features as determined in the field. Notify the Authority's Representative if there is a conflict between areas of excavation and existing structures or archaeological sites to remain.
- B. Coordinate elevations of conduits and boxes with final locations and profiles of ducts, as determined by coordination with other utilities, underground obstructions, and surface features. Revise locations and elevations as required to suit field conditions and to ensure that duct runs drain to handholes, and as approved by the Authority's Representative.

3.2 UNDERGROUND CONDUIT APPLICATION

- A. Conduit for Electrical Feeders 600 V and Less: RNC, NEMA Type EPC-40-PVC.
- B. Conduit for Electrical Branch Circuits: RNC, NEMA Type EPC-40-PVC.
- C. Underground Conduit Crossing Paved Paths, Walks, Driveways, and Roadways: Rigid metallic conduit.

3.3 EARTHWORK

- A. Excavation and Backfill: Comply with Section 31 20 00 "Earth Moving" (Building & Utility Site Work) but do not use heavy-duty, hydraulic-operated, compaction equipment.
- B. Restore surface features at areas disturbed by excavation, and re-establish original grades unless otherwise indicated. Replace removed sod immediately after backfilling is completed.
- C. Restore areas disturbed by trenching, storing of dirt, cable laying, and other work. Restore vegetation and include necessary topsoiling, fertilizing, liming, seeding, sodding, sprigging, and mulching. Comply with landscape drawings and Specification Sections.
- D. Cut and patch existing pavement in the path of underground ducts and utility structures.

3.4 CONDUIT INSTALLATION

- A. Install conduit according to NEMA TCB 2.
- B. Slope: Pitch conduit a minimum slope of 1:300 down toward handholes and away from buildings and equipment. Slope conduit from a high point in runs between two handholes, to drain in both directions.

- C. Curves and Bends: Use 5-degree angle couplings for small changes in direction. Use manufactured long sweep bends with a minimum radius of 48 inches 12.5-feet, both horizontally and vertically, at other locations unless otherwise indicated.
- D. Joints: Use solvent-cemented joints in conduit and fittings and make watertight according to manufacturer's written instructions. Stagger couplings so those of adjacent conduit do not lie in same plane.
- E. Building Wall Penetrations: Make a transition from underground PVC conduit to rigid steel conduit at least 5-feet outside the building wall, without reducing duct line slope away from the building, and without forming a trap in the line. Use fittings manufactured for duct-to-conduit transition. Install conduit penetrations of building walls as specified in Section 26 05 44 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."
- F. Sealing: Provide temporary closure at terminations of ducts that have cables pulled. Seal spare ducts at terminations. Use sealing compound and plugs to withstand at least 15-psig hydrostatic pressure.
- G. Pulling Cord: Install 100-lbf-test nylon cord in empty ducts.
- H. Direct-Buried Conduit Banks:
 - 1. Excavate trench bottom to provide firm and uniform support for conduit bank. Comply with requirements in Section 31 20 00 "Earth Moving" (Building & Utility Site Work) for preparation of trench bottoms for pipes less than 6 inches in nominal diameter.
 - 2. Support ducts on duct separators coordinated with duct size, duct spacing, and outdoor temperature.
 - 3. Space separators close enough to prevent sagging and deforming of conduit, with not less than four spacers per 20-feet of conduit. Secure separators to earth and to conduit to prevent displacement during backfill and yet permit linear conduit movement due to expansion and contraction as temperature changes. Stagger spacers approximately 6 inches between tiers.
 - 4. Depth: Install top of duct bank at least 24 inches below finished grade unless otherwise indicated.
 - 5. Install conduit with a minimum of 3 inches between conduit for like services and 6 inches between power and signal conduit.
 - 6. Elbows: Install manufactured conduit elbows for stub-ups at poles and equipment, at building entrances through floor, and at changes of direction in duct run unless otherwise indicated. Encase elbows for stub-up ducts throughout length of elbow.
 - 7. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment, at building entrances through floor, and at changes of direction in conduit run.
 - a. Couple steel conduits to conduit with adapters designed for this purpose, and encase coupling with 3 inches of concrete.
 - b. For equipment mounted on outdoor concrete bases, extend steel conduit horizontally a minimum of 60 inches from edge of equipment pad or foundation. Install insulated grounding bushings on terminations at equipment.

8. After installing conduit, backfill and compact. Start at tie-in point and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Hand place backfill to 4 inches over conduit and hand tamp. Firmly tamp backfill around conduit to provide maximum supporting strength. Use hand tamper only. After placing controlled backfill, make final conduit connections at end of run and complete backfilling with normal compaction. Comply with requirements in Section 31 20 00 "Earth Moving" (Building & Utility Site Work) for installation of backfill materials.
 - a. Place minimum 3 inches of sand as a bed for conduit bank. Place sand to a minimum of 6 inches above top level of duct bank.
 - i. Warning Planks: Bury warning planks approximately 12 inches above direct-buried conduit, placing them 24 inches o.c. Align planks along the width and along the centerline of conduit bank. Provide an additional plank for each 12-inch increment of conduit-bank width over a nominal 18 inches. Space additional planks 12 inches apart, horizontally.
 - j. Warning Tape: Bury warning tape approximately 12 inches above all concrete-encased conduit and conduit banks. Align tape parallel to and within 3 inches of centerline of conduit bank. Provide an additional warning tape for each 12-inch increment of conduit-bank width over a nominal 18 inches. Space additional tapes 12 inches apart, horizontally.

3.5 CLEANING

- A. Pull leather-washer-type duct cleaner, with graduated washer sizes, through full length of ducts. Follow with rubber duct swab for final cleaning and to assist in spreading lubricant throughout ducts.
- B. Clean internal surfaces of handholes and transformer vaults. Remove foreign material.

END OF SECTION

SECTION 26 05 44

SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING

PART 1 - GENERAL (Not Used)

PART 2 - PRODUCTS

2.1 SLEEVES

- A. Wall Sleeves:
 - 1. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, zinc coated, plain ends.
- B. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies: Galvanized-steel sheet; 0.0239-inch minimum thickness; round tube closed with welded longitudinal joint, with tabs for screw-fastening the sleeve to the board.
- C. Molded-PE or -PP Sleeves: Removable, tapered-cup shaped, and smooth outer surface with nailing flange for attaching to wooden forms.
- D. Sleeves for Rectangular Openings:
 - 1. Material: Galvanized sheet steel.
 - 2. Minimum Metal Thickness:
 - a. For sleeve cross-section rectangle perimeter less than 50 inches and with no side larger than 16 inches, thickness shall be 0.052-inch.
 - b. For sleeve cross-section rectangle perimeter 50 inches or more and one or more sides larger than 16 inches, thickness shall be 0.138-inch.

2.2 SLEEVE-SEAL SYSTEMS

- A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.
 - 1. Sealing Elements: EPDM rubber interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
 - 2. Pressure Plates: Plastic.
 - 3. Connecting Bolts and Nuts: Carbon steel, with corrosion-resistant coating, of length required to secure pressure plates to sealing elements.

2.3 SLEEVE-SEAL FITTINGS

- A. Description: Manufactured plastic, sleeve-type, waterstop assembly made for embedding in concrete slab or wall. Unit shall have plastic or rubber waterstop collar with center opening to match piping OD.

2.4 GROUT

- A. Description: Nonshrink; recommended for interior and exterior sealing openings in non-fire-rated walls or floors.
- B. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.
- C. Design Mix: 5,000-psi, 28-day compressive strength.
- D. Packaging: Premixed and factory packaged.

2.5 SILICONE SEALANTS

- A. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants of grade indicated below.
 - 1. Grade: Pourable (self-leveling) formulation for openings in floors and other horizontal surfaces that are not fire rated.
- B. Silicone Foams: Multicomponent, silicone-based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, nonshrinking foam.

PART 3 - EXECUTION

3.1 SLEEVE INSTALLATION FOR NON-FIRE-RATED ELECTRICAL PENETRATIONS

- A. Comply with NECA 1.
- B. Comply with NEMA VE 2 for cable tray and cable penetrations.
- C. Sleeves for Conduits Penetrating Above-Grade Non-Fire-Rated Concrete and Masonry-Unit Floors and Walls:
 - 1. Interior Penetrations of Non-Fire-Rated Walls and Floors:
 - a. Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint.
 - b. Seal space outside of sleeves with mortar or grout. Pack sealing material solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect material while curing.

2. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.
 3. Size pipe sleeves to provide 1/4-inch annular clear space between sleeve and raceway or cable unless sleeve seal is to be installed.
 4. Install sleeves for wall penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of walls. Cut sleeves to length for mounting flush with both surfaces of walls. Deburr after cutting.
 5. Install sleeves for floor penetrations. Extend sleeves installed in floors 2 inches above finished floor level. Install sleeves during erection of floors.
- D. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies:
1. Use circular metal sleeves unless penetration arrangement requires rectangular sleeved opening.
 2. Seal space outside of sleeves with approved joint compound for gypsum board assemblies.
- E. Aboveground, Exterior-Wall Penetrations: Seal penetrations using cast-iron pipe sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.
- F. Underground, Exterior-Wall and Floor Penetrations: Install cast-iron pipe sleeves. Size sleeves to allow for 1-inch annular clear space between raceway or cable and sleeve for installing sleeve-seal system.

3.2 SLEEVE-SEAL-SYSTEM INSTALLATION

- A. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at raceway entries into building.
- B. Install type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between raceway or cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.3 SLEEVE-SEAL-FITTING INSTALLATION

- A. Install sleeve-seal fittings in new walls and slabs as they are constructed.
- B. Assemble fitting components of length to be flush with both surfaces of concrete slabs and walls. Position waterstop flange to be centered in concrete slab or wall.
- C. Secure nailing flanges to concrete forms.
- D. Using grout, seal the space around outside of sleeve-seal fittings.

END OF SECTION

SECTION 26 05 53

IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 QUALITY ASSURANCE

- A. Comply with ANSI A13.1.
- B. Comply with NFPA 70.
- C. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.
- D. Comply with ANSI Z535.4 for safety signs and labels.
- E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

1.2 COORDINATION

- A. Coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual; and with those required by codes, standards, and 29 CFR 1910.145. Use consistent designations throughout Project.
- B. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- C. Coordinate installation of identifying devices with location of access panels and doors.
- D. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 CONDUCTOR IDENTIFICATION MATERIALS

- A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils thick by 1 to 2 inches wide.
- B. Write-On Tags: Polyester tag, 0.015 inch thick, with corrosion-resistant grommet and cable tie for attachment to conductor or cable.

2.2 UNDERGROUND-LINE WARNING TAPE

- A. Tape:

1. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical and communications utility lines.
2. Printing on tape shall be permanent and shall not be damaged by burial operations.
3. Tape material and ink shall be chemically inert, and not subject to degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.
4. Detectable three-layer laminate, consisting of a printed pigmented polyolefin film, a solid aluminum-foil core, and a clear protective film that allows inspection of the continuity of the conductive core, bright-colored, compounded for direct-burial service.
5. Overall Thickness: 5 mils.
6. Foil Core Thickness: 0.35 mil.
7. Weight: 28 lb/1000 sq. ft.
8. 3-Inch Tensile According to ASTM D 882: 70 lbf, and 4600 psi.

B. Color and Printing:

1. Comply with ANSI Z535.1 through ANSI Z535.5.
2. Inscriptions for Red-Colored Tapes: ELECTRIC LINE, HIGH VOLTAGE.
3. Inscriptions for Orange-Colored Tapes: TELEPHONE CABLE.

2.3 EQUIPMENT IDENTIFICATION LABELS

- A. Engraved, Laminated Acrylic or Melamine Label: Punched or drilled for screw mounting. White letters on a dark-gray background. Minimum letter height shall be 3/8 inch.
- B. Stenciled Legend: In nonfading, waterproof, black ink or paint. Minimum letter height shall be 1-inch.

2.4 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Paint: Comply with requirements in painting Sections for paint materials and application requirements. Select paint system applicable for surface material and location (exterior or interior).
- B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Verify identity of each item before installing identification products.
- B. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- C. Apply identification devices to surfaces that require finish after completing finish work.

- D. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.
- E. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
- F. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches below finished grade. Use multiple tapes where width of multiple lines installed in a common trench or concrete envelope exceeds 16 inches overall.
- G. Painted Identification: Comply with requirements in painting Sections for surface preparation and paint application.

3.2 IDENTIFICATION SCHEDULE

- A. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.
 - 1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for ungrounded service feeder and branch-circuit conductors.
 - a. Color shall be factory applied or field applied for sizes larger than No. 8 AWG, if authorities having jurisdiction permit.
 - b. Colors for 120/208V Three Phase Circuits:
 - 1) Phase A: Black
 - 2) Phase B: Red
 - 3) Phase C: Blue
 - 4) Neutral: White
 - c. Colors for 120/240 V single phase circuits:
 - 1) Line 1: Black
 - 2) Line 2: Red
 - 3) Neutral: White
 - d. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.
- B. Conductors to Be Extended in the Future: Attach write-on tags to conductors and list source.
- C. Locations of Underground Lines: Identify with underground-line warning tape for power, lighting, communication, and control wiring and optical fiber cable.

- D. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and the Operation and Maintenance Manual, unless equipment is provided with its own identification.
1. Labeling Instructions:
 - a. Indoor Equipment: Engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch-high letters on 1-1/2-inch-high label; where two lines of text are required, use labels 2 inches high.
 - b. Outdoor Equipment: Engraved, laminated acrylic or melamine label or Stenciled legend 4 inches high.
 - c. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
 - d. Fasten labels with appropriate mechanical fasteners that do not change the NEMA or NRTL rating of the enclosure.

END OF SECTION

SECTION 26 29 13

ENCLOSED CONTROLLERS

PART 1 - GENERAL

1.1 DEFINITIONS

- A. CPT: Control power transformer.
- B. MCCB: Molded-case circuit breaker.
- C. MCP: Motor circuit protector.
- D. N.C.: Normally closed.
- E. N.O.: Normally open.
- F. OCPD: Overcurrent protective device.
- G. SCR: Silicon-controlled rectifier.

1.2 SUBMITTALS

- A. Product Data: For each type of enclosed controller. Include manufacturer's technical data on features, performance, electrical characteristics, ratings, and enclosure types and finishes.

1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store enclosed controllers indoors in clean, dry, heated space with uniform temperature to prevent condensation. Protect enclosed controllers from exposure to dirt, fumes, water, corrosive substances, and physical damage.

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Rate equipment for continuous operation under the following conditions unless otherwise indicated:
 - 1. Ambient Temperature: Not less than minus 10 deg F and not exceeding 104 deg F.
 - 2. Altitude: Not exceeding 6,600-feet.

1.6 COORDINATION

- A. Coordinate layout and installation of enclosed controllers with other construction including conduit, piping, equipment, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.
- B. Coordinate installation of roof curbs, equipment supports, and roof penetrations.

PART 2 - PRODUCTS

2.1 FULL-VOLTAGE CONTROLLERS

- A. General Requirements for Full-Voltage Controllers: Comply with NEMA ICS 2, general purpose, Class A.
- B. Motor-Starting Switches: "Quick-make, quick-break" toggle or push-button action; marked to show whether unit is off or on.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
 - b. General Electric Company; GE Consumer & Industrial - Electrical Distribution.
 - c. Rockwell Automation, Inc.; Allen-Bradley brand.
 - d. Siemens Energy & Automation, Inc.
 - e. Square D; a brand of Schneider Electric.
 - 2. Configuration: Nonreversing.
 - 3. Surface mounting.
 - 4. Red pilot light.
- C. Fractional Horsepower Manual Controllers: "Quick-make, quick-break" toggle or push-button action; marked to show whether unit is off, on, or tripped.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
 - b. General Electric Company; GE Consumer & Industrial - Electrical Distribution.
 - c. Rockwell Automation, Inc.; Allen-Bradley brand.
 - d. Siemens Energy & Automation, Inc.
 - e. Square D; a brand of Schneider Electric.
 - 2. Configuration: Nonreversing.

3. Overload Relays: Inverse-time-current characteristics; NEMA ICS 2, Class 10 tripping characteristics; heaters matched to nameplate full-load current of actual protected motor; external reset push button; bimetallic type.
 4. Surface mounting unless noted otherwise.
 5. Red pilot light.
- D. Magnetic Controllers: Full voltage, across the line, electrically held.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
 - b. General Electric Company; GE Consumer & Industrial - Electrical Distribution.
 - c. Rockwell Automation, Inc.; Allen-Bradley brand.
 - d. Siemens Energy & Automation, Inc.
 - e. Square D; a brand of Schneider Electric.
 2. Configuration: Nonreversing.
 3. Contactor Coils: Pressure-encapsulated type with coil transient suppressors.
 - a. Operating Voltage: Depending on contactor NEMA size and line-voltage rating, manufacturer's standard matching control power or line voltage.
 4. Power Contacts: Totally enclosed, double-break, silver-cadmium oxide; assembled to allow inspection and replacement without disturbing line or load wiring.
 5. Control Circuits: 120-V ac; obtained from integral CPT, with primary and secondary fuses, with CPT of sufficient capacity to operate integral devices and remotely located pilot, indicating, and control devices.
 6. Bimetallic Overload Relays:
 - a. Inverse-time-current characteristic.
 - b. Class 20 tripping characteristic, unless recommended otherwise by motor manufacturer.
 - c. Heaters in each phase matched to nameplate full-load current of actual protected motor and with appropriate adjustment for duty cycle.
 - d. Ambient compensated.
 - e. Automatic resetting.
 7. N.O., isolated overload alarm contact.
 8. External overload reset push button.
- E. Combination Magnetic Controller: Factory-assembled combination of magnetic controller, OCPD, and disconnecting means.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Eaton Electrical Inc.; Cutler-Hammer Business Unit.
 - b. General Electric Company; GE Consumer & Industrial - Electrical Distribution.
 - c. Rockwell Automation, Inc.; Allen-Bradley brand.
 - d. Siemens Energy & Automation, Inc.
 - e. Square D; a brand of Schneider Electric.
2. Fusible Disconnecting Means:
 - a. NEMA KS 1, heavy-duty, horsepower-rated, fusible switch with clips or bolt pads to accommodate Class J fuses.
 - b. Lockable Handle: Accepts three padlocks and interlocks with cover in closed position.
 - c. Auxiliary Contacts: N.O./N.C., arranged to activate before switch blades open.
3. Nonfusible Disconnecting Means:
 - a. NEMA KS 1, heavy-duty, horsepower-rated, nonfusible switch.
 - b. Lockable Handle: Accepts three padlocks and interlocks with cover in closed position.
 - c. Auxiliary Contacts: N.O./N.C., arranged to activate before switch blades open.

2.2 ENCLOSURES

- A. Enclosed Controllers: NEMA ICS 6, to comply with environmental conditions at installed location.
 1. Dry and Clean Indoor Locations: Type 1.
 2. Outdoor Locations: Type 3R.
 3. Outdoor Wash Down Locations: Type 4X.
 4. Kitchen Areas: Type 4X, stainless steel.
 5. Other Wet or Damp Indoor Locations: Type 4.
 6. Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: Type 12.

2.3 ACCESSORIES

- A. General Requirements for Control Circuit and Pilot Devices: NEMA ICS 5; factory installed in controller enclosure cover unless otherwise indicated.
 1. Push Buttons, Pilot Lights, and Selector Switches: Standard-duty type.
 - a. Push Buttons: Shrouded types; maintained.
 - b. Pilot Lights: LED types; colors as indicated.

- c. Selector Switches: Rotary type.
- B. N.C./N.O. auxiliary contact(s).
- C. Control Relays: Auxiliary and adjustable solid-state time-delay relays provide for controllers NEMA Size 4 or greater.
- D. Space heaters, with N.C. auxiliary contacts, to mitigate condensation in enclosures installed outdoors or in unconditioned interior spaces subject to humidity and temperature swings.
- E. Cover gaskets for Type 1 enclosures.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and surfaces to receive enclosed controllers, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
- B. Examine enclosed controllers before installation. Reject enclosed controllers that are wet, moisture damaged, or mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Wall-Mounted Controllers: Install enclosed controllers on walls with tops at uniform height unless otherwise indicated, and by bolting units to wall or mounting on lightweight structural-steel channels bolted to wall.
- B. Install fuses in each fusible-switch enclosed controller.
- C. Install heaters in thermal overload relays. Select heaters based on actual nameplate full-load amperes after motors have been installed.
- D. Install, connect, and fuse thermal-protector monitoring relays furnished with motor-driven equipment.
- E. Comply with NECA 1.

3.3 IDENTIFICATION

- A. Identify enclosed controllers, components, and control wiring. Comply with requirements for identification specified in Division 26 Section "Identification for Electrical Systems."
 - 1. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs.

2. Label each enclosure with engraved nameplate.
3. Label each enclosure-mounted control and pilot device.

3.4 CONTROL WIRING INSTALLATION

- A. Install wiring between enclosed controllers and remote devices. Comply with requirements in Division 26 Section "Control-Voltage Electrical Power Cables."
- B. Bundle, train, and support wiring in enclosures.
- C. Connect selector switches and other automatic-control selection devices where applicable.
 1. Connect selector switches to bypass only those manual- and automatic-control devices that have no safety functions when switch is in manual-control position.
 2. Connect selector switches with enclosed-controller circuit in both manual and automatic positions for safety-type control devices such as low- and high-pressure cutouts, high-temperature cutouts, and motor overload protectors.

3.5 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
- B. Acceptance Testing Preparation:
 1. Test continuity of each circuit.
- C. Tests and Inspections:
 1. Inspect controllers, wiring, components, connections, and equipment installation. Test and adjust controllers, components, and equipment.
 2. Test insulation resistance for each enclosed-controller element, component, connecting motor supply, feeder, and control circuits.
 3. Test continuity of each circuit.
 4. Verify that voltages at controller locations are within plus or minus 10 percent of motor nameplate rated voltages. If outside this range for any motor, notify Director before starting the motor(s).
 5. Test each motor for proper phase rotation.
 6. Perform each electrical test and visual and mechanical inspection stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 7. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
 8. Test and adjust controls, remote monitoring, and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Enclosed controllers will be considered defective if they do not pass tests and inspections.

- E. Prepare test and inspection reports including a certified report that identifies enclosed controllers. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.6 ADJUSTING

- A. Set field-adjustable switches, auxiliary relays, time-delay relays, timers, and overload-relay pickup and trip ranges.
- B. Set field-adjustable circuit-breaker trip ranges.

3.7 PROTECTION

- A. Replace controllers whose interiors have been exposed to water or other liquids prior to Substantial Completion.

3.8 DEMONSTRATION

- A. Train NYSTA's maintenance personnel to adjust, operate, and maintain enclosed controllers.

END OF SECTION

ITEM 627.0031-25 EARTHWORK

1. DESCRIPTION:

1.01 Furnish all labor, materials, equipment and services necessary to complete the work as indicated on the Contract Plans and the Specification Sections listed below

1.04 All work shall conform to the requirements specified in Part 1 – General, of the Sections listed.

2. MATERIALS:

2.01 The materials shall be as specified in Part 2 – Products, of the Sections listed.

3. CONSTRUCTION DETAILS:

3.01 The construction details shall be as specified on Part 3 – Execution, if the Sections listed.

4. METHOD OF MEASUREMENT:

4.01 This item shall be measured for payment on a lump sum basis for the work completed in accordance with the Contract Documents and as directed by the Engineer.

5. BASIS OF PAYMENT:

5.01 Payment for this item shall be made at the lump sum bid price bid. The lump sum price bid shall include cost of furnishing all labor, material, equipment and appliances necessary to complete the work as indicated on the Contract Plans and as specified herein in the Sections listed.

5.02 Detailed Estimate:

- A. Before the first certificate of payment is issued for the work under this item, submit a detailed estimate of quantities and prices for all materials, labor, and other items included under this item, which shall aggregate the contract lump sum price bid for this item. Prepare the detailed estimate in the same sequence as the Sections listed.
- B. The detailed estimate shall be supported by such evidence, including certified copies of subcontracts, as the Engineer may require.
- C. The detailed estimate must be approved by the Engineer who may revise it as, in his/her reasonable judgment, is necessary to make the various item conform to their true values. The value of each certificate of payment will be based on the approved detailed estimate.

5.03 Monthly payments will be made for this item in proportion to the total amount of work completed.

ITEM 627.0031-25 EARTHWORK**1. SPECIFICATION SUMMARY**

1.01 This Item includes the following specifications:

- A. Section 311000 – Site Clearing
- B. Section 312000 – Earth Moving

1.02 This item shall include, but not be limited to, the following:

- A. Cleaning, excavation, restoration.

END OF ITEM 627.0031--25

SECTION 31 10 00**SITE CLEARING****PART 1 - GENERAL****1.1 DEFINITIONS**

- A. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- B. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.
- C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil and is the zone where plant roots grow.
- D. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.2 MATERIAL OWNERSHIP

- A. Except for stripped topsoil and other materials indicated or directed by the Authority to be stockpiled or otherwise remain the Authority's property, cleared materials shall become Contractor's property and shall be removed from Project site. Do not allow cleared material to intermix with stockpiled topsoil.

1.3 SUBMITTALS

- A. Existing Conditions: Documentation of adjoining construction and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
 - 1. Use sufficiently detailed photographs or videotape.
- B. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.4 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the Authority and Authorities having jurisdiction.

2. Provide alternate routes around closed or obstructed traffic ways if required by the Authority or Authorities having jurisdiction.
- B. Salvable Improvements: Carefully remove items indicated to be salvaged and store on the Authority's premises where indicated, or as directed by the Authority.
- C. Verify with the Authority and Utility Companies the location of all underground utilities on site.
- D. Utility Locator Service: Notify Dig Safely New York, Inc. at (800) 962-7962 for area where Project is located before site clearing.
- E. Site Inspection: Prior to all work of this Section, carefully inspect the entire site, notify the Authority of any discrepancies between the design of the drawings and actual physical site conditions.
- F. Do not commence site clearing operations until temporary erosion and sedimentation-control measures are in place.
- G. Soil Stripping, Handling, and Stockpiling: Perform only when the topsoil is dry or slightly moist.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Division 31 Section "Earth Moving."
 1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Protect existing site improvements to remain from damage during construction.
 1. Restore damaged improvements to their original condition, as acceptable to the Authority.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and roadways.

- B. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established or pavements have been installed.
- C. Upon completion of construction activities, remove erosion- and sedimentation-control measures. Restore and stabilize areas disturbed during removal operations.

3.3 EXISTING IMPROVEMENTS

- A. Use all means necessary to protect existing improvements not designated for removal and, in the event of damage, immediately make all repairs and replacements necessary to the approval of the Authority at no additional cost to the Authority.

3.4 EXISTING UTILITIES

- A. Preserve in operating condition all active utilities transversing the site and designated to remain. Indicated locations are approximate; determine exact locations before commencing work.
- B. Arrange and pay for disconnecting and sealing indicated utilities that serve existing structures before site clearing. Notify affected Utility Companies in advance and obtain approval before starting work.
 - 1. Verify that utilities have been disconnected and capped before proceeding with site clearing.
- C. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.
 - 1. Place markers to indicate location of disconnected services. Identify service lines and capping locations on Project Record Documents.
 - 2. Arrange with Utility Companies to shut off indicated utilities.
 - 3. The Authority will arrange to shut off indicated privately owned utilities when requested by Contractor.
- D. Excavate for and remove underground utilities indicated to be removed.
- E. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by the Authority or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify the Authority and authorities having jurisdiction not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without the Authority's and authorities having jurisdiction written permission.

3.5 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
 - 1. Do not remove trees, shrubs, and other vegetation indicated to remain.
 - 2. Grind down stumps and remove roots, obstructions, and debris to a depth of 12 inches below finished subgrade elevation.
 - 3. Chip removed tree branches and dispose of off-site.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
 - 1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact each layer to a density equal to adjacent original ground.

3.6 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.
- C. Stockpile topsoil away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water or provide temporary seed and mulch. See Section 32 92 00 for temporary seed requirements.
 - 1. Dispose of surplus topsoil. Surplus topsoil is that which exceeds quantity indicated to be stockpiled or reused.
 - 2. Do not remove surplus topsoil from the site without the Authority's and authorities having jurisdiction prior approval.

3.7 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, and aggregate base as indicated.
 - 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut along line of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.

3.8 DUST CONTROL

- A. Use all means necessary to prevent the spread of dust during performance of the work of this Section; thoroughly moisten all surfaces as required to prevent dust being a nuisance to the public, neighbors, and concurrent performance of other work on the site.

3.9 BURNING

- A. On-site burning will not be permitted.

3.10 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off-site.

3.11 SALVAGE OF MATERIALS

- A. Carefully remove items indicated to be salvaged and store on the Authority's premises as directed by the Authority.

END OF SECTION

SECTION 31 20 00**EARTH MOVING****PART 1 - GENERAL****1.1 DEFINITIONS**

- A. Backfill: Soil material or controlled low-strength material used to fill an excavation.
 - 1. Final Backfill: Backfill placed over bedding course to fill a trench.
- B. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.
- C. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- D. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
 - 1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by the Authority. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
 - 2. Bulk Excavation: Excavation more than 10-feet in width and more than 30-feet in length.
 - 3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by the Authority. Unauthorized excavation, as well as remedial work directed by the Authority, shall be without additional compensation.
- E. Fill: Soil materials used to raise existing grades.
- F. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material that exceed 1 cu. yd. for bulk excavation or 3/4 cu. yd. for footing, trench, and pit excavation that cannot be removed by rock excavating equipment equivalent to the following in size and performance ratings, without systematic drilling, ram hammering, ripping, or blasting, when permitted:
 - 1. Excavation of Footings, Trenches, and Pits: Late-model, track-mounted hydraulic excavator; equipped with a 42-inch- wide, maximum, short-tip-radius rock bucket; rated at not less than 138-hp flywheel power with bucket-curling force of not less than 28,700 lbf and stick-crowd force of not less than 18,400 lbf with extra-long reach boom; measured according to SAE J-1179.
 - 2. Bulk Excavation: Late-model, track-mounted loader; rated at not less than 230-hp flywheel power and developing a minimum of 47,992-lbf breakout force with a general-purpose bare bucket; measured according to SAE J-732.

- G. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- H. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
- I. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- J. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.2 SUBMITTALS

- A. Product Data: For each type of the following manufactured products required:
 - 1. Geotextiles.
 - 2. Controlled low-strength material, including design mixture.
 - 3. Warning tapes.
- B. Qualification Data: For qualified testing agency.
- C. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:
 - 1. Classification according to ASTM D 2487.
 - 2. Laboratory compaction curve according to ASTM D 1557.
 - 3. Submit test data with suppliers name, location of source and sieve analysis of material showing conformance with the specifications.
- D. Dewatering Plan
 - 1. Include a written plan for dewatering operations including control procedures to be adopted if dewatering problems arise.
- E. Preexcavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by earth moving operations. Submit before earth moving begins.

1.3 QUALITY ASSURANCE

- A. Codes and Standards
 - 1. Comply with the provisions of the following codes and standards except where more stringent requirements are shown or specified.

- a. Local Regulations
 - b. New York State Department of Transportation (NYSDOT) Standard Specification dated January 1, 2019 and any subsequent addendums.
2. Excavations, trench depths and widths, sheeting, shoring, bracing, and cutback slopes to be determined by the Contractor and shall comply with standards set by OSHA, NYS Department of Labor, NYS Industrial Code and all other applicable safety standards.
- B. Geotechnical Testing Agency Qualifications: Qualified according to ASTM E 329 and ASTM D 3740 for testing indicated.

1.4 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth moving operations.
- 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the Authority and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by the Authority or authorities having jurisdiction.
- B. Utility Locator Service: Notify Dig Safety New York at (800) 962-7962 and local utility agencies for area where Project is located before beginning earth moving operations.
- C. Do not commence earth moving operations until temporary erosion- and sedimentation-control measures, specified in the Contract Documents, are in place.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D 2487 , or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487 , or a combination of these groups.
- 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Subbase Course: Suitable material conforming to NYSDOT Item 304.12, Type 2. Comply with the gradation and material requirements specified below:

SIEVE		PERCENT PASSING (%) BY WEIGHT
SIEVE SIZE	SIZE OPENING	
2 inch	50 mm	100
¼ inch	6.3 mm	25 – 60
No. 40	425 µm	5 – 40
No. 200	75 µm	0 - 10

1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after four test cycles.
2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve will not exceed 5.0.
3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a ½ inch sieve will consist of flat or elongated particles. A flat or elongated particle is defined as one which as its greatest dimension more than three times its least dimension.

- E. Select Granular Fill: Suitable material conforming to NYSDOT Item 203.07. Comply with the gradation and material requirements specified below:

SIEVE		PERCENT PASSING (%) BY WEIGHT
SIEVE SIZE	SIZE OPENING	
4"	100 mm	100
No. 40	425 um	0 - 70
No. 200	75 µm	0 - 15

1. Magnesium Sulfate Soundness Test: 30 percent maximum loss by weight.
2. RAP shall not be utilized.

- F. Pipe Bedding Material: Suitable material conforming to NYSDOT Designation 733-15, Sand Backfill.

1. Comply with gradation and material requirements specified below:

SIEVE		PERCENT PASSING (%) BY WEIGHT
SIEVE SIZE	SIZE OPENING	
1/2 inch	12.7mm	100
1/4 inch	6.3 mm	90 -100
No. 200	75 µm	0 - 5

2. Provide materials substantially free of shale and soft, poor durability particles.

- G. Backfill for utility pipes and structures (non-paved areas): Satisfactory soils consisting of on-site or borrow soil materials.
1. Provide satisfactory soil materials free of any organic or other deleterious materials.
- H. Backfill for utility pipes and structures in paved areas shall meet the requirements of NYSDOT Item 203.07, Select Granular Fill.
- I. Leveling bed for utility structures: Suitable material conforming to NYSDOT Item 304.14, Type 4. Comply with the gradation and material requirements specified below:

SIEVE		PERCENT PASSING (%) BY WEIGHT
SIEVE SIZE	SIZE OPENING	
2 inch	50 mm	100
¼ inch	6.3 mm	30 – 65
No. 40	425 µm	5 – 40
No. 200	75 µm	0 - 10

1. Magnesium Sulfate Soundness Test: 20 percent maximum loss by weight after four test cycles.
2. Plasticity Index: The plasticity index of the material passing the No. 40 mesh sieve will not exceed 5.0.
3. Elongated Particles: Not more than 30 percent, by weight, of the particles retained on a ½ inch sieve will consist of flat or elongated particles. A flat or elongated particle is defined as one which has its greatest dimension more than three times its least dimension.

2.2 GEOTEXTILES

- A. Geotextiles shall meet the requirements of NYSDOT Items listed below for each type. Material requirements for each classification will meet the default class of the approved materials list of NYSDOT (<http://nysdot.gov>). The following geotextiles and their classification are as follows:
1. Separation Geotextile: Subbase separation, classification S, NYSDOT Item 207.21

2.3 CONTROLLED LOW-STRENGTH MATERIAL

- A. Controlled Low-Strength Material: Self-compacting, flowable concrete material produced from the following:
1. Portland Cement: ASTM C 150, Type I / II.
 2. Fly Ash: ASTM C 618, Class C or F.
 3. Normal-Weight Aggregate: ASTM C 33, 3/4-inch nominal maximum aggregate size.
 4. Foaming Agent: ASTM C 869.
 5. Water: ASTM C 94.
 6. Air-Entraining Admixture: ASTM C 260.

- B. Produce conventional-weight, controlled low-strength material with 140-psi compressive strength when tested according to ASTM C 495.

2.4 ACCESSORIES

- A. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches (150 mm) wide and 4 mils (0.1 mm) thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches (750 mm) deep; colored as follows:
 - 1. Red: Electric.
 - 2. Green: Sewer systems.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth moving operations.
- C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

3.3 EXPLOSIVES

- A. Explosives: Do not use explosives.

3.4 EXCAVATION, GENERAL

- A. Classified Excavation: Excavate to subgrade elevations. Material to be excavated will be classified as earth. If rock is encountered, do not excavate rock until it has been classified by the Authority.

1. Earth excavation includes excavating pavements and obstructions visible on surface; underground structures, utilities, and other items indicated to be removed; together with soil, boulders, and other materials not classified as rock or unauthorized excavation.
2. Rock excavation includes removal and disposal of rock. Remove rock to lines and subgrade elevations indicated to permit installation of permanent construction without exceeding the following dimensions:
 - a. 6 inches beneath pipe in trenches, and 24 inches wider than pipe.

3.5 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1-inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
 1. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1-inch. Do not disturb bottom of excavations intended as bearing surfaces.
- B. Report to the Authority, the elevations of ground water where evident during excavation within building areas.
- C. Protect excavated areas which are to support foundations or other work against freezing, by means of insulated blankets, hay or other approved methods. Where bearing areas have been subjected to frost penetration, remove affected material as directed by the Authority and pay for the cost of additional excavation, materials and construction necessary to rectify condition.

3.6 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.7 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
 1. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line, unless otherwise indicated on the Contract Documents.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
 1. Clearance: 12 inches each side of pipe or conduit.
- C. Trench Bottoms: Excavate trenches 6 inches deeper than bottom of pipe and conduit elevations to allow for bedding course. Hand-excavate deeper for bells of pipe.

1. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

3.8 SUBGRADE INSPECTION

- A. Notify the Authority when excavations have reached required subgrade.
- B. If the Authority determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
- C. Proof-roll subgrade below pavements with a non-vibratory roller to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
 2. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by the Authority, and replace with compacted backfill or fill as directed.
- D. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
- E. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by the Authority, without additional compensation.

3.9 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by the Authority.
 1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by the Authority.

3.10 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.11 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
 2. Surveying locations of underground utilities for Record Documents.
 3. Testing and inspecting underground utilities.

4. Removing concrete formwork.
5. Removing trash and debris.
6. Removing temporary shoring and bracing, and sheeting.
7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

- B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.12 FILLING AND BACKFILLING STRUCTURES

- A. Exterior Structures

1. Provide compacted leveling bed.
2. Place in layers of not more than 6 inches loose depth compacted with heavy equipment.
3. Grade smooth and even, free of voids, to required elevation. Provide final grades within a tolerance of ½ inch when tested with a 10-foot straightedge.

- B. Exterior Slabs on Grade

1. Provide subbase course to depths indicated and placed in layers of not more than 6-inch loose depth.
2. Compact with heavy equipment.

3.13 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.

- B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.

- C. Trenches under Roadways: Provide 4-inch-thick, concrete-base slab support for piping or conduit less than 30 inches below surface of roadways. After installing and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase course. Concrete is specified in Division 03 Section "Cast-in-Place Concrete."

- D. Backfill voids with satisfactory soil while removing shoring and bracing.

- E. Place and compact initial backfill of bedding material to a height of 12 inches over the pipe or conduit.

1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.

- F. Controlled Low-Strength Material: Place initial backfill of controlled low-strength material to a height of 12 inches over the pipe or conduit. Coordinate backfilling with utilities testing.

- G. Place and compact final backfill using satisfactory soil (non-paved areas) or select granular fill (paved areas) to final subgrade elevation.

- H. Install warning tape directly above utilities, a maximum of 18 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

3.14 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. Place and compact fill material in layers to required elevations as follows:
 - 1. Under grass and planted areas, use satisfactory soil material.
 - 2. Under walks and pavements, use select granular fill.
 - 3. Under exterior structures, use select granular fill.
- C. Place soil fill on subgrades free of mud, frost, snow, or ice.

3.15 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
 - 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 - 2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.16 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 6 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 1557:
 - 1. Under structures, slabs and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
 - 2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
 - 3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
 - 4. For utility trenches, compact each layer of initial and final backfill soil material at 95 percent.

3.17 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
1. Provide a smooth transition between adjacent existing grades and new grades.
 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
1. Turf or Unpaved Areas: Plus or minus 1-inch.
 2. Walks: Plus or minus 1/2-inch.
 3. Pavements: Plus or minus 1/2-inch.
- C. Grading Inside Structure Lines: Finish subgrade to a tolerance of 1/2-inch when tested with a 10-foot straightedge.

3.18 SUBBASE COURSE UNDER PAVEMENTS AND WALKS

- A. Place subbase course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place subbase course under pavements and walks as follows:
1. Install separation geotextile on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.
 2. Shape subbase course to required crown elevations and cross-slope grades.
 3. Place subbase course 6 inches or less in compacted thickness in a single layer.
 4. Place subbase course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
 5. Compact subbase course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

3.19 FIELD QUALITY CONTROL

- A. Special Inspections: Contractor shall engage a qualified special inspector to perform the following special inspections:
1. Determine prior to placement of fill that site has been prepared in compliance with requirements.
 2. Determine that fill material and maximum lift thickness comply with requirements.
 3. Determine, at the required frequency, that in-place density of compacted fill complies with requirements.
- B. Testing Agency: Contractor shall engage a qualified geotechnical engineering testing agency to perform tests and inspections.

- C. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.
- D. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
 - 1. Paved and Structure Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 2000 sq. ft. or less of paved area or structure, but in no case fewer than three tests.
 - 2. Trench Backfill: At each compacted initial and final backfill layer, at least one test for every 150-feet or less of trench length, but no fewer than two tests.
- E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

3.20 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 - 1. Scarify or remove and replace soil material to depth as directed by the Authority; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.21 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off the Authority's property.

END OF SECTION

ITEM 627.0032 – 25 EXTERIOR IMPROVEMENTS

1. DESCRIPTION:

- 1.01 Furnish all labor, materials, equipment and services necessary to complete the work as indicated on the Contract Plans and the Specification Sections listed below
- 1.04 All work shall conform to the requirements specified in Part 1 – General, of the Sections listed.

2. MATERIALS:

- 2.01 The materials shall be as specified in Part 2 – Products, of the Sections listed.

3. CONSTRUCTION DETAILS:

- 3.01 The construction details shall be as specified on Part 3 – Execution, if the Sections listed.

4. METHOD OF MEASUREMENT:

- 4.01 This item shall be measured for payment on a lump sum basis for the work completed in accordance with the Contract Documents and as directed by the Engineer.

5. BASIS OF PAYMENT:

- 5.01 Payment for this item shall be made at the lump sum bid price bid. The lump sum price bid shall include cost of furnishing all labor, material, equipment and appliances necessary to complete the work as indicated on the Contract Plans and as specified herein in the Sections listed.
- 5.02 Detailed Estimate:
- A. Before the first certificate of payment is issued for the work under this item, submit a detailed estimate of quantities and prices for all materials, labor, and other items included under this item, which shall aggregate the contract lump sum price bid for this item. Prepare the detailed estimate in the same sequence as the Sections listed.
 - B. The detailed estimate shall be supported by such evidence, including certified copies of subcontracts, as the Engineer may require.
 - C. The detailed estimate must be approved by the Engineer who may revise it as, in his/her reasonable judgment, is necessary to make the various item conform to their true values. The value of each certificate of payment will be based on the approved detailed estimate.
- 5.03 Monthly payments will be made for this item in proportion to the total amount of work completed.

ITEM 627.0032 – 25 EXTERIOR IMPROVEMENTS

1. SPECIFICATION SUMMARY

1.01 This Item includes the following specifications:

- A. Section 321216 – Asphalt Paving
- B. Section 329200 – Turf and Grasses

1.02 This item shall include, but not be limited to, the following:

- A. Asphalt, paving, turf.

END OF ITEM 627.0032--25

SECTION 32 12 16**ASPHALT PAVING****PART 1 - GENERAL****1.1 DEFINITION**

- A. Hot-Mix Asphalt Paving Terminology: Refer to ASTM D 8 for definitions of terms.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
1. Job-Mix Designs: Certification, by New York State Department of Transportation (NYSDOT), of approval of each job mix proposed for the Work.
- B. Material Certificates: For each paving material, from manufacturer.
- C. Material Test Reports: For each paving material.

1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by NYSDOT.
- B. Testing Agency Qualifications: Qualified according to ASTM D 3666 for testing indicated.
- C. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of NYSDOT for asphalt paving work.

1.4 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
1. Tack Coat: Minimum surface temperature of 60 deg F.
 2. Asphalt Binder Course: Minimum surface temperature of 40 deg F and rising at time of placement.
 3. Asphalt Top Course: Minimum surface temperature of 60 deg F at time of placement.
 4. Asphalt Pavement Joint Adhesive: Minimum surface temperature of 40 degrees F.
 5. Joint Sealant: Minimum surface temperature of 50 degrees F.

PART 2 - PRODUCTS

2.1 AGGREGATES

- A. General: Use materials and gradations that have performed satisfactorily in previous installations.
- B. Coarse Aggregate: ASTM D 692, sound; angular crushed stone, crushed gravel, or cured, crushed blast-furnace slag.
- C. Fine Aggregate: ASTM D 1073, sharp-edged natural sand or sand prepared from stone, gravel, cured blast-furnace slag, or combinations thereof.
 - 1. For hot-mix asphalt, limit natural sand to a maximum of 20 percent by weight of the total aggregate mass.
- D. Mineral Filler: ASTM D 242, rock or slag dust, hydraulic cement, or other inert material.

2.2 ASPHALT MATERIALS

- A. Asphalt Binder: AASHTO M 320 or AASHTO MP 1a, PG 64-22.
- B. Asphalt Cement: ASTM D 3381 for viscosity-graded material.
- C. Tack Coat: ASTM D 977 emulsified asphalt, or cationic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application. Comply with the requirements of NYSDOT Tack Coat, Section 407, Item Number 407.01M.
- D. Water: Potable.

2.3 AUXILIARY MATERIALS

- A. Asphalt Pavement Joint Adhesive: Joint adhesive shall meet the requirements of NYSDOT Item No. 418.7603, Asphalt Pavement Joint Adhesive.
- B. Joint and Crack Sealant: ASTM D 6690, Type II or III, hot-applied, single-component, polymer-modified bituminous sealant.

2.4 MIXES

- A. Hot-Mix Asphalt: Dense, hot-laid, hot-mix asphalt plant mixes approved by NYSDOT, designed according to NYSDOT Design and Construction Division "Standard Specifications" dated January 2, 2002 and complying with the following requirements:
 - 1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.

2. Binder Course: Comply with the requirements of NYSDOT, Type 3 Dense Binder, Section 401, Item 403.138902.
3. Top Course: Comply with the requirements of NYSDOT, Type 7 Top Course, Section 401, Item 403.198902.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that subbase is dry and in suitable condition to begin paving.
- B. Proof-roll subbase below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
 2. Proof roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons.
 3. Excavate soft spots, unsatisfactory subbase, and areas of excessive pumping or rutting, as determined by the Authority, and replace with compacted subbase material as directed.
- C. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 PATCHING

- A. Hot-Mix Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to depths indicated on the drawings. Excavate rectangular or trapezoidal patches, extending 12 inches into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate subbase course to form new subgrade.
- B. Tack Coat: Apply uniformly to vertical surfaces abutting or projecting into new, hot-mix asphalt paving at a rate of 0.05 to 0.15 gal./sq. yd.
 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.
- C. Patching: Fill excavated pavements with hot-mix asphalt binder mix for full thickness of patch and, while still hot, compact flush with adjacent surface.

3.3 REPAIRS

- A. Leveling Course: Install and compact leveling course consisting of hot-mix asphalt surface course to level sags and fill depressions deeper than 1 inch in existing pavements.

1. Install leveling wedges in compacted lifts not exceeding 3 inches thick.
- B. Crack and Joint Filling: Remove existing joint filler material from cracks or joints to a depth of 1/4-inch.
 1. Clean cracks and joints in existing hot-mix asphalt pavement.
 2. Use emulsified-asphalt slurry to seal cracks and joints less than 1/4-inch wide. Fill flush with surface of existing pavement and remove excess.
 3. Use hot-applied joint sealant to seal cracks and joints more than 1/4-inch wide. Fill flush with surface of existing pavement and remove excess.

3.4 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from subbase surfaces. Ensure that prepared subbase is ready to receive paving.
 1. Protect primed substrate from damage until ready to receive paving.
- B. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd.
 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.
- C. Asphalt Pavement Joint Adhesive: Install in strict conformance with manufacturer's written instructions.

3.5 HOT-MIX ASPHALT PLACING

- A. Place the asphaltic concrete in strict accordance with the provisions of Section 401 through 405 of NYSDOT Standards.
- B. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
 1. Place hot-mix asphalt binder course in number of lifts and thicknesses indicated.
 2. Place hot-mix asphalt top course in single lift.
 3. Spread mix at minimum temperature of 250 deg F.
 4. Begin applying mix along high side of one-way slopes unless otherwise indicated.
 5. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.

3.6 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.
1. Clean contact surfaces and apply tack coat to joints.
 2. Offset longitudinal joints, in successive courses, a minimum of 6 inches.
 3. Offset transverse joints, in successive courses, a minimum of 24 inches.
 4. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method according to AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."
 5. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
 6. Compact asphalt at joints to a density within 2 percent of specified course density.

3.7 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
1. Complete compaction before mix temperature cools to 185 deg F.
- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
1. Average Density: 96 percent of reference laboratory density according to ASTM D 6927, but not less than 94 percent nor greater than 100 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- F. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.

- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.

3.8 INSTALLATION TOLERANCES

- A. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:
 - 1. Binder Course: Plus or minus 1/4-inch.
 - 2. Top Course: Plus 1/4-inch, no minus.
- B. Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:
 - 1. Binder Course: 1/4-inch.
 - 2. Top Course: 1/8-inch.

3.9 FIELD QUALITY CONTROL

- A. Testing Agency: The Authority will engage a qualified testing agency to perform tests and inspections.
- B. Thickness: In-place compacted thickness of hot-mix asphalt courses will be determined according to ASTM D 3549.
- C. Surface Smoothness: Finished surface of each hot-mix asphalt course will be tested for compliance with smoothness tolerances.
- D. In-Place Density: Testing agency will take samples of uncompacted paving mixtures and compacted pavement according to ASTM D 979.
 - 1. Reference maximum theoretical density will be determined by averaging results from four samples of hot-mix asphalt-paving mixture delivered daily to site, prepared according to ASTM D 2041, and compacted according to job-mix specifications.
 - 2. In-place density of compacted pavement will be determined by testing core samples according to ASTM D 1188 or ASTM D 2726.
 - a. One core sample will be taken for every 1000 sq. yd. or less of installed pavement, with no fewer than 3 cores taken.
 - b. Field density of in-place compacted pavement may also be determined by nuclear method according to ASTM D 2950 and correlated with ASTM D 1188 or ASTM D 2726.
- E. Replace and compact hot-mix asphalt where core tests were taken.

- F. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.10 DISPOSAL

- A. Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow milled materials to accumulate on-site.

END OF SECTION

SECTION 32 92 00

TURF AND GRASSES

PART 1 - GENERAL

1.1 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- C. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- D. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- E. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- F. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill before planting soil is placed.
- G. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- H. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil, but in disturbed areas such as urban environments, the surface soil can be subsoil.

1.2 SUBMITTALS

- A. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name, percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
- B. Product Certificates: For soil amendments and fertilizers, from manufacturer.
- C. Material Test Reports: For imported topsoil existing native surface topsoil.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape Installer whose work has resulted in successful turf establishment.
1. Professional Membership: Installer shall be a member in good standing of either the Professional Landcare Network or the American Nursery and Landscape Association.
 2. Experience: Five years' experience in turf installation.
 3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
 4. Pesticide Applicator: State licensed, commercial.
- B. Soil-Testing Laboratory Qualifications: An independent laboratory or university laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
- C. Soil Analysis: For existing and imported topsoil proposed for work in this Section, furnish soil analysis and a written report by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; sodium absorption ratio; deleterious material; pH; and mineral and plant-nutrient content of the soil.
1. Testing methods and written recommendations shall comply with USDA's Handbook No. 60.
 2. Report suitability of tested soil for turf growth.
 - a. Based on the test results, state recommendations for soil treatments and soil amendments to be incorporated. State recommendations in weight per 1000 sq. ft. or volume per cu. yd. for nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory planting soil suitable for healthy, viable plants.
 - b. Report presence of problem salts, minerals, or heavy metals, including aluminum, arsenic, barium, cadmium, chromium, cobalt, lead, lithium, and vanadium. If such problem materials are present, provide additional recommendations for corrective action.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, as applicable.
- B. Bulk Materials:
1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.

2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
3. Accompany each delivery of bulk fertilizers, lime, and soil amendments with appropriate certificates.

1.5 PROJECT CONDITIONS

- A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of planting completion.
 1. Spring Planting: April 15th to June 15th.
 2. Fall Planting: August 15th to October 15th.
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

1.6 MAINTENANCE SERVICE

- A. Initial Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable turf is established as determined by the Authority, but for not less than the following periods:
 1. Seeded Turf: 60 days from date of planting completion.
 - a. When initial maintenance period has not elapsed before end of planting season, or if turf is not fully established, continue maintenance during next planting season.

PART 2 - PRODUCTS

2.1 SEED

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds"
- B. General Lawn Seed Mix: Seed of grass species as follows:
 1. Northern Triple Ryegrass Blend: Durable dark green color, fine texture, rapid germination, quick establishment, excellent disease resistance and endophytic grasses for improved insect resistance.
 2. Provide a top quality blend of 3 endophytic enhanced fine textured ryegrass varieties.

- C. Seed Species (Temporary Stabilization): Seed of grass species as follows:

TEMPORARY STABILIZATION – SPRING/SUMMER/EARLY FALL			
SEED MIX	VARIETY	RATE (LBS./ACRE)	RATE (LBS./1000 FT.²)
Rye Grass	Annual or Perennial	30	0.7

TEMPORARY STABILIZATION – LATE FALL/EARLY WINTER			
SEED MIX	VARIETY	RATE (LBS./ACRE)	RATE (LBS./ 1000 FT.²)
Winter Rye	Certified 'Aroostock'	100	2.5

2.2 INORGANIC SOIL AMENDMENTS

- A. Lime: ASTM C 602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent.
1. Provide lime in form of ground dolomitic limestone or calcitic limestone.

2.3 ORGANIC SOIL AMENDMENTS

- A. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
1. Organic Matter Content: 50 to 60 percent of dry weight.
- B. Sphagnum Peat: Partially decomposed sphagnum peat moss, finely divided or of granular texture, with a pH range of 3.4 to 4.8.

2.4 FERTILIZERS

- A. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 4 percent nitrogen and 20 percent phosphoric acid.

- B. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

2.5 PLANTING SOILS

- A. Planting Soil: Imported ASTM D 5268 topsoil, with pH range of 5.5 to 7, a minimum of 4 percent organic material content; free of stones 1-inch or larger in any dimension and other extraneous materials harmful to plant growth. Mix ASTM D 5268 topsoil with soil amendments and fertilizers in amounts recommended in the soil test reports by a qualified soil testing agency.
- B. Planting Soil: Existing, native surface topsoil formed under natural conditions and stockpiled on-site. Verify suitability of native surface topsoil to produce viable planting soil. Clean soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth. Existing topsoil shall be mechanically screened.
1. Supplement with imported ASTM D 5268 topsoil planting soil when quantities are insufficient.
 2. Mix existing, native surface topsoil with soil amendments and fertilizers in amounts recommended in the soil test reports by a qualified soil testing agency.

2.6 MULCHES

- A. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic and free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.
- B. Nonasphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application; nontoxic and free of plant-growth or germination inhibitors.

2.7 PESTICIDES

- A. General: Pesticide, registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- B. Pre-Emergent Herbicide (Selective and Non-Selective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
- C. Post-Emergent Herbicide (Selective and Non-Selective): Effective for controlling weed growth that has already germinated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to be planted for compliance with requirements and other conditions affecting performance.
 - 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
 - 2. Do not mix or place soils and soil amendments in frozen, wet, or muddy conditions.
 - 3. Suspend soil spreading, grading, and tilling operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
 - 4. Uniformly moisten excessively dry soil that is not workable and which is too dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by the Authority and replace with new planting soil.

3.2 PREPARATION

- A. Protect structures, utilities, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
 - 1. Protect adjacent and adjoining areas from hydro-seeding and hydro-mulching overspray.
 - 2. Protect grade stakes set by others until directed to remove them.
- B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 TURF AREA PREPARATION

- A. Limit turf subgrade preparation to areas to be planted.
- B. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 4 inches. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off the Authority's property.
 - 1. Thoroughly blend planting soil before spreading or spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil.

- a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
 - b. Mix lime with dry soil before mixing fertilizer.
2. Spread planting soil to a depth of 4 inches but not less than required to meet finish grades after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
- C. Unchanged Subgrades: If turf is to be planted in areas unaltered or undisturbed by excavating, grading, or surface-soil stripping operations, prepare surface soil as follows:
1. Remove existing grass, vegetation, and turf. Do not mix into surface soil.
 2. Loosen surface soil to a depth of at least 6 inches. Apply soil amendments and fertilizers according to planting soil mix proportions and mix thoroughly into top 4 inches of soil. Till soil to a homogeneous mixture of fine texture.
 3. Remove stones larger than 1 inch in any dimension and sticks, roots, trash, and other extraneous matter.
 4. Legally dispose of waste material, including grass, vegetation, and turf, off the Authority's property.
- D. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus ½-inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit finish grading to areas that can be planted in the immediate future.
- E. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- F. Before planting, obtain the Authority's and authorities having jurisdiction acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.4 SEEDING

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
1. Do not use wet seed or seed that is moldy or otherwise damaged.
 2. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate of 4 lb/1,000 sq. ft. or as recommended by the seed supplier.
- C. Rake seed lightly into top 1/8-inch of soil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes exceeding 1:4 with erosion-control blankets installed and stapled according to manufacturer's written instructions.

- E. Protect seeded areas with slopes not exceeding 1:4 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose thickness over seeded areas. Spread by hand, blower, or other suitable equipment.

3.5 HYDRO-SEEDING

- A. Hydro-seeding: Mix specified seed, fertilizer, and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
 1. Mix slurry with fiber-mulch manufacturer's recommended tackifier.
 2. Apply slurry uniformly to all areas to be seeded in a one-step process. Apply slurry at a rate so that mulch component is deposited at not less than 1,500-lb/acre dryweight, and seed component is deposited at not less than the specified seed-sowing rate.

3.6 TURF RENOVATION

- A. Renovate existing turf.
- B. Renovate existing turf damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.
 1. Reestablish turf where settlement or washouts occur or where minor regrading is required.
 2. Install new planting soil as required.
- C. Remove sod and vegetation from diseased or unsatisfactory turf areas; do not bury in soil.
- D. Remove topsoil containing foreign materials such as oil drippings, fuel spills, stones, gravel, and other construction materials resulting from Contractor's operations, and replace with new planting soil.
- E. Mow, dethatch, core aerate, and rake existing turf.
- F. Remove weeds before seeding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.
- G. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off the Authority's property.
- H. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches.
- I. Apply soil amendments and initial fertilizers required for establishing new turf and mix thoroughly into top 4 inches of existing soil. Install new planting soil to fill low spots and meet finish grades.
- J. Apply seed and protect with straw mulch as required for new turf.

- K. Water newly planted areas and keep moist until new turf is established.

3.7 TURF MAINTENANCE

- A. Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and mulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.
1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
 2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
 3. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.
- B. Watering: Install and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly moist to a depth of 4 inches.
1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
 2. Water turf with fine spray at a minimum rate of 1-inch per week unless rainfall precipitation is adequate.
- C. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:
1. Mow grass to a height of 2 inches when average height of grass is 3 inches.
- D. Turf Postfertilization: Apply fertilizer after initial mowing and when grass is dry.
1. Use fertilizer that will provide actual nitrogen of at least 1 lb/1,000 sq. ft. to turf area.

3.8 SATISFACTORY TURF

- A. Turf installations shall meet the following criteria as determined by the Authority and the Authority's Representative:
1. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches.

2. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.
- B. Use specified materials to reestablish turf that does not comply with requirements and continue maintenance until turf is satisfactory.
- C. Heavy rain events, temperature extremes, and other acts of nature will not exempt the Contractor from the requirement to establish satisfactory turfs and grasses.

3.9 PESTICIDE APPLICATION

- A. Apply pesticides and other chemical products and biological control agents in accordance with requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Authority's operations and others in proximity to the Work. Notify the Authority before each application is performed.
- B. Post-Emergent Herbicides (Selective and Non-Selective): Apply only as necessary to treat already-germinated weeds and in accordance with manufacturer's written recommendations.

3.10 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.

END OF SECTION

ITEM 627.0033 – 25 UTILITIES

1. DESCRIPTION:

1.01 Furnish all labor, materials, equipment and services necessary to complete the work as indicated on the Contract Plans and the Specification Sections listed below

1.04 All work shall conform to the requirements specified in Part 1 – General, of the Sections listed.

2. MATERIALS:

2.01 The materials shall be as specified in Part 2 – Products, of the Sections listed.

3. CONSTRUCTION DETAILS:

3.01 The construction details shall be as specified on Part 3 – Execution, if the Sections listed.

4. METHOD OF MEASUREMENT:

4.01 This item shall be measured for payment on a lump sum basis for the work completed in accordance with the Contract Documents and as directed by the Engineer.

5. BASIS OF PAYMENT:

5.01 Payment for this item shall be made at the lump sum bid price bid. The lump sum price bid shall include cost of furnishing all labor, material, equipment and appliances necessary to complete the work as indicated on the Contract Plans and as specified herein in the Sections listed.

5.02 Detailed Estimate:

A. Before the first certificate of payment is issued for the work under this item, submit a detailed estimate of quantities and prices for all materials, labor, and other items included under this item, which shall aggregate the contract lump sum price bid for this item. Prepare the detailed estimate in the same sequence as the Sections listed.

B. The detailed estimate shall be supported by such evidence, including certified copies of subcontracts, as the Engineer may require.

C. The detailed estimate must be approved by the Engineer who may revise it as, in his/her reasonable judgment, is necessary to make the various item conform to their true values. The value of each certificate of payment will be based on the approved detailed estimate.

5.03 Monthly payments will be made for this item in proportion to the total amount of work completed.

ITEM 627.0033 – 25 UTILITIES

1. SPECIFICATION SUMMARY

1.01 This Item includes the following specifications:

A. Section 334100 - Signage

1.02 This item shall include, but not be limited to, the following:

A. Signage.

END OF ITEM 627.0033--25

PART 1 - GENERAL**1.1 SUBMITTALS**

- A. Shop Drawings: Show shop drawings, not necessarily to scale, but sufficient enough in detail to show color, wording, lettering size and style, overall sign size, construction details and installation details.

PART 2 - PRODUCTS**2.1 MANUFACTURERS**

- A. Construction Materials: Comply with applicable requirements of DOT Section 645.
- B. Confined Entry Sign: In accordance with OSHA Standard 29, CFR, Part 1910
- C. Posts: Comply with the requirements of NYSDOT Item 645.81; Type A sign posts, galvanized steel.

PART 3 - EXECUTION**3.1 EXAMINATION**

- A. Erect signs in their designated locations, as indicated on the Contract Documents and in accordance with the approved shop drawings and the applicable requirements of DOT Section 645.
- B. Protect surfaces and finishes from abrasion and other damage during handling and installation.
- C. Replace damaged or faulty signs.

END OF SECTION

- ITEM 637.11---25 – ENGINEER’S FIELD OFFICE – TYPE 1**
- ITEM 637.12---25 – ENGINEER’S FIELD OFFICE – TYPE 2**
- ITEM 637.13---25 – ENGINEER’S FIELD OFFICE – TYPE 3**
- ITEM 637.14---25 – ENGINEER’S FIELD OFFICE – TYPE 4**
- ITEM 637.15---25 – ENGINEER’S FIELD OFFICE – TYPE 5**

1. **DESCRIPTION.** This work shall consist of providing, for the Engineer’s use a building, or a portion thereof, or a modular trailer of a specified type erected at a location approved by the Engineer. In addition, all computer hardware, software and internet communications described in this specification shall be provided for the duration of the contract.

2. **MATERIALS:**

2.01 **Engineer’s Field Office.** The Engineer’s Field Office shall be within a secured, weatherproof building or mobile trailer. If two (2) or more mobile trailer units are provided, they shall be joined with weatherproof connections. Mobile trailers shall be in new or like new condition. The Contractor may furnish equivalent facilities in an existing building, provided that the building is located to provide convenient service. The Contractor shall supply the Engineer with a copy of the Certificate of Occupancy for the existing building.

The Engineer’s Field Office shall be in accordance with the requirements of the New York State Uniform Fire Prevention and Building Code, 19 NYCRR, and any applicable local codes.

The Engineer’s Field Office shall be in a location with access to high-speed broadband (non-satellite) Internet service, as determined by the Engineer.

The electrical system shall be able to continuously operate all equipment and be provided with adequate receptacles. To accommodate computer equipment, the field office shall be provided with a dedicated 20 amp electrical service and a vacant floor-to-ceiling area with a 39 inch by 39 inch footprint along a wall for the installation of a computer hardware rack/cabinet. Electric light shall be provided by non-glare type luminaires to provide a minimum illumination level of 1,000 lux at desk-height level. An ambient air temperature of 70 °F ±10 °F shall be maintained.

Fire extinguishers and smoke and carbon monoxide detectors shall be provided and installed.

The Engineer’s Field Office shall be partitioned to provide separate rooms, defined as either “small” or “large”, with adjoining doors. Table 637-1 contains the minimum area requirements for each of the office types.

TABLE 637-1 ENGINEER’S FIELD OFFICE AREA REQUIREMENTS					
Physical Requirement	Engineer’s Field Office Type				
	1	2	3	4	5
Min. total floor area (ft ²)	540	860	1300	2475	2700
Min. number of small rooms	2	3	2	3	6
Min. floor area of each small room (ft ²)	100	100	120	150	175
Min. number of large rooms	1	1	2	2	2
Min. floor area of each large room (ft ²)	200	200	240	300	350

A. **Potable Water.** From a local municipal water supply, certified well or bottled with a heating/refrigerator unit to provide hot and cold water. An exterior frost-free hose bib shall be

- ITEM 637.11---25 – ENGINEER’S FIELD OFFICE – TYPE 1**
ITEM 637.12---25 – ENGINEER’S FIELD OFFICE – TYPE 2
ITEM 637.13---25 – ENGINEER’S FIELD OFFICE – TYPE 3
ITEM 637.14---25 – ENGINEER’S FIELD OFFICE – TYPE 4
ITEM 637.15---25 – ENGINEER’S FIELD OFFICE – TYPE 5

provided in a location adjacent to the Engineer’s Field Office. The hose bib need not be installed on a potable water line, and if the water in the line is not potable, it shall be clearly marked as such.

- B. **Restroom.** A separately enclosed room, lockable from the inside, that is properly ventilated and in compliance with applicable sanitary codes. The Contractor shall provide all lavatory amenities, necessary paper and soap products, hot and cold running water and a toilet. The toilet shall be flush type where sanitary facilities are available, and a type approved by the Engineer prior to installation where sanitary facilities are not available. The minimum required number of restrooms to be provided is specified in Table 637-2.
- C. **Parking Area.** The Contractor shall provide and/or construct paved or hard surfaced (gravel or bankrun material) secure parking area with dedicated parking spaces adjacent to the Engineer’s Field Office. Each parking space shall be 9 feet by 18 feet, and the minimum required number of spaces to be provided is specified in Table 637-2.
- D. **Field Office Signs.** The sign panel material shall be aluminum, fiberglass, plywood or lightweight plastic. The sign sheeting shall be ASTM Type III. The sign panel shall be 36 inches high by 48 inches wide with white legend on green background with the phrases as positioned and described below. If erected at a location where the sign might be struck by an errant vehicle, the sign support shall be a breakaway type.

The letters in the phrase "FIELD OFFICE" shall be 6 inch C series with the top of the letters 6 inches below the top of the panel. The letters in the phrase "ENGINEER-IN-CHARGE" shall be 6 inch B series with the top of the letters 18 inches below the top of the panel. The letters in the phrase "N.Y.S. THRUWAY AUTHORITY" shall be 1½ inch E series with the top of the letters 30 inches below the top of the panel. All phrases shall be centered horizontally on the panel.

If the Engineer’s Field Office is not located within or adjacent to the contract limits, two (2) additional signs shall be displayed conspicuously within the contract limits. The signs shall be similar to the above description, except that they shall be 48 inches high by 64 inches wide and have an additional bottom line of text containing the street address of the Engineer’s Field Office. The letters in the street address shall be 6 inch B series with the top of the letters 36 inches below the top of the panel and centered horizontally on the panel.

- E. **Mailbox.** Standard mailbox (with post if necessary) or post office box meeting the requirements of the U.S. Postal Service.
- F. **Telephone and Answering System.** A separate telephone and digital answering system for the exclusive use of the inspection staff. The minimum required number of telephone voice lines to be provided is specified in Table 637-2 (these lines are in addition to the separate lines to be provided for the dial-up computer access if high speed internet access is not available where the field office is located, as determined by the Engineer). The telephone and answering system shall provide the ability to answer all voice lines from each voice line, transfer calls to all voice lines and be equipped with a single, dedicated answering system.

A minimum of one (1) telephone shall be cordless and a minimum of one (1) telephone shall be equipped with speaker and conference call capability. The remaining telephones, at least one (1) per required voice line, shall be extension telephones with minimum 25 foot long cords. The digital answering system shall be capable of recording outgoing messages up to 60 seconds long and

- ITEM 637.11---25 – ENGINEER’S FIELD OFFICE – TYPE 1**
ITEM 637.12---25 – ENGINEER’S FIELD OFFICE – TYPE 2
ITEM 637.13---25 – ENGINEER’S FIELD OFFICE – TYPE 3
ITEM 637.14---25 – ENGINEER’S FIELD OFFICE – TYPE 4
ITEM 637.15---25 – ENGINEER’S FIELD OFFICE – TYPE 5

- receiving a minimum of 40 incoming messages of 60 seconds duration. The system must include automated voice marking of time and day of each message received and provide a message mark so that new messages may be played back without erasing old messages. The system shall include remote programming of playback, backspace, and outgoing message re-record and allow for the retrieval of messages without a remote control unit.
- G. **Photocopier.** Heavy duty, electric, dry-process photocopying machine. The machine shall be an all-in-one copy machine with black & white and color copying, black & white and color printing and black & white and color scanning capabilities. Machine shall have at least three paper bins (8½ x 11 inches, 8½ x 14 inches and 11 x 17 inches), enlarging and reducing capabilities, and collating, sorting stapling and double-sided copying. Set-up, printer drivers, software and networking are required. All on-site staff email addresses shall be set up and programmed for ease of scanning. Maintenance shall be provided, as required, including repairs and all necessary toner cartridges and staples for the life of the contract and until final completion. One (1) case (5,000 sheets, 20 lb, white) of each paper size shall be provided as initial stock.
- H. **Paper Shredder.** Automatic start, heavy duty cross-cut paper shredder. The shredder shall be able to receive 8½ inch wide paper and shred a minimum of 15 sheets simultaneously along with CDs and staples.
- I. **Pencil Sharpener.** Manual or electric pencil sharpener, minimum of 1, throughout duration of the project.
- J. **Interior Bulletin Board.** An installed, wall-mounted 4 foot by 6 foot bulletin board made of cork or similar material in a large room, and one (1) 2 foot by 4 foot wall mounted bulletin board installed per room.
- K. **Dry Erase Board.** Installed, wall-mounted 2 foot by 4 foot dry erase boards, minimum one (1) per room.
- L. **Storage Locker.** Metal or wood storage locker with shelves, a tumbler lock and two (2) keys for the storage of survey, GPS and testing equipment. The total locker space footprint provided shall be a minimum of 9 square feet with a minimum height of 6 feet.
- M. **Fire Resistant Cabinet.** Fire resistant, legal size filing cabinet with locks and two (2) keys each, meeting the requirements of ANSI/UL Standard 72 for Insulated Filing Devices, Class 350-1 hour. Each office shall be provided with two (2) 2-drawer cabinets, and the required number of additional 4-drawer cabinets as specified in Table 637-2.
- N. **Bookcase.** Self-standing, 3-shelf metal or wood bookcase, approximately 4 feet high, 4 feet wide and 1 foot deep. The minimum required number of bookcases to be provided is specified in Table 637-2.
- O. **Wastebasket.** Minimum 7 gallon wastebasket, minimum one (1) per desk.
- P. **Refrigerator.** Electric, top-freezer type providing a minimum storage space of 15 cubic feet for Engineer’s Field Office Types 1 and 2, and a minimum storage space of 21 cubic feet for Types 3, 4 and 5.

- ITEM 637.11---25 – ENGINEER’S FIELD OFFICE – TYPE 1**
ITEM 637.12---25 – ENGINEER’S FIELD OFFICE – TYPE 2
ITEM 637.13---25 – ENGINEER’S FIELD OFFICE – TYPE 3
ITEM 637.14---25 – ENGINEER’S FIELD OFFICE – TYPE 4
ITEM 637.15---25 – ENGINEER’S FIELD OFFICE – TYPE 5

- Q. **Kitchenette.** To include a minimum 1 cubic foot, 1,300 watt microwave oven, a sink with hot and cold running water with minimum dimensions of 15 inch by 15 inch by 6 inch deep, usable counter space with minimum dimensions of 5 feet long by 2 feet deep and cabinet space with minimum dimensions of 5 feet long by 1½ feet deep by 2½ feet high. If the water in the sink is not potable, it shall be clearly marked as such.
- R. **First Aid Kit.** A Type III kit in accordance with ANSI Z308.1 *Minimum Requirements for Workplace First Aid Kits*. The minimum number of first aid kits to be provided is specified in Table 637-2.
- S. **Thermometer.** A minimum-maximum thermometer displaying in degrees Fahrenheit and mounted with an external probe to give the temperature both indoors and outdoors.
- T. **Coat Rack.** A metal or wood coat rack or closet capable of holding at least 4 coats. The minimum required number of coat racks to be provided is specified in Table 637-2. A single coat rack may be provided as long as it holds the minimum number of coats as per Table 637-2.
- U. **Office Desk and Chair.** Fully assembled freestanding office desks and chairs. Each desk shall have a 5 foot long by 2½ foot wide work surface and a height of 30 inches, at least 2 lockable drawers and include an adjustable shelf approximately 1 foot wide and no less than 2½ feet long. Each desk shall also be provided with an adjustable chair with arms, 5 legs with casters and be adjustable from approximately 16 inches to 24 inches in height. Each desk shall have a dedicated electrical outlet receptacle. The required number of office desks and chairs to be provided is specified in Table 637-2.

TABLE 637-2 ENGINEER’S FIELD OFFICE FURNISHING REQUIREMENTS					
Furnishing Description	Required Number per Engineer’s Field Office Type				
	1	2	3	4	5
Restrooms	1	1	2	2	3
Parking Spaces	6	8	12	18	22
Telephone Voice Lines	2	3	4	4	5
Telephone Line for Computers (when high speed internet is unavailable)	1	1	1	1	1
Fire Resistant Cabinets (4-drawer)	2	3	4	6	8
Bookcases	5	7	10	12	16
First Aid Kits	1	1	1	2	2
Coat Racks	1	2	3	4	5
Office Desks and Chairs	4	8	12	18	22
Office/Conference Tables	2	2	3	4	5
Folding Chairs	8	10	10	12	15
Flatbed Scanner	1	1	1	1	1
Personal Computer (Hardware and Software)	2	4	6	8	8
LaserJet printer	1	2	3	3	3
Additional Software	1	1	2	2	3

- ITEM 637.11---25 – ENGINEER’S FIELD OFFICE – TYPE 1**
ITEM 637.12---25 – ENGINEER’S FIELD OFFICE – TYPE 2
ITEM 637.13---25 – ENGINEER’S FIELD OFFICE – TYPE 3
ITEM 637.14---25 – ENGINEER’S FIELD OFFICE – TYPE 4
ITEM 637.15---25 – ENGINEER’S FIELD OFFICE – TYPE 5

V. **Office/Conference Table.** Commercial-grade rectangular table with weather/spill resistant top a minimum of 8 feet long by 2½ feet wide by 30 inches high. The minimum required number of office/conference tables to be provided is specified in Table 637-2.

W. **Folding Chair.** Commercial-grade, folding steel chair with approximate overall dimensions of 30 inches by 19 inches wide by 21 inches deep. The minimum required number of folding chairs to be provided is specified in Table 637-2.

2.02 **Information Technology.** The minimum required number of personal computers to be provided is specified in Table 637-2. The minimum requirements for each personal computer are:

A. **Hardware** (Note: Information in yellow highlight below has been updated from previous version of special specification.)

- CPU to operate Windows 10 for Business (64-bit edition) and all other software listed in this specification;
- Optical Drive – CD-RW/DVD-RW;
- 1 TB (terabyte) minimum hard drive;
- 8 GB (gigabytes) minimum RAM;
- USB Port(s);
- 24” LCD monitor (1920 x 1080 resolution minimum);
- One (1) 1 TB (terabyte) External Hard Drive;
- Locking cabinet(s) which encloses all computer hardware;
- Surge protection device;
- External 3 button optical scroll mouse;
- External Speakers;
- Modem with separate phone line for computer (if high speed internet service is unavailable, as determined by the Engineer), (minimum 56K baud rate).
- USB Microphone and web camera for online tele-conferencing.

B. **Software.** Substitutions for the specified software shall not be permitted unless noted otherwise. All manuals shall be provided.

- Windows 10 for Business (64-bit edition);
- Microsoft Word (2016 version or later);
- Microsoft Excel (2016 version or later);
- 7-ZIP;
- Norton Internet Security (latest version for Windows 10) set up to run in Auto-Protect Mode and Auto Update Mode (monthly), or McAfee Internet Security Suite (latest version);

Note: Microsoft Office 2016 Standard Edition, or later version, may be used in lieu of Word 2016 and Excel 2016.

C. **Additional Software.** The following software shall also be provided on the number of personal computers specified in Table 637-2:

- Microsoft Photo Editor (latest version);

- ITEM 637.11---25 – ENGINEER’S FIELD OFFICE – TYPE 1**
ITEM 637.12---25 – ENGINEER’S FIELD OFFICE – TYPE 2
ITEM 637.13---25 – ENGINEER’S FIELD OFFICE – TYPE 3
ITEM 637.14---25 – ENGINEER’S FIELD OFFICE – TYPE 4
ITEM 637.15---25 – ENGINEER’S FIELD OFFICE – TYPE 5

- Adobe Acrobat XI Professional (latest version);

D. Internet Communication.

- **Cable Internet Service.** 10/100 Ethernet cable network card and high-speed cable modem capable of transferring data at a minimum of 50 megabits per second;
- Subscription to an Internet Service Provider capable of providing high-speed Internet service;
- Network/Wireless – Ethernet or wireless card to be compatible with the selected internet and office network connections.

3. **CONSTRUCTION DETAILS.** The Contractor shall be responsible, until use and occupancy is relinquished by the Authority, for any and all damage, direct or indirect, of whatever nature, occurring to the property of the Authority and property of the inspection staff which is kept in the Engineer's Field Office. The Engineer will provide the Contractor with a detailed list of items kept in the office, with corresponding dollar values, and will provide the Contractor with updates when something on the list changes. Non-Authority-owned property shall only be those items used in the performance of contract-related work activities. Such property shall be replaced within 30 days of the reported damages and would include any loss caused by, but not limited to, fire, theft, vandalism or malicious mischief. The Contractor shall not be responsible for items kept in the Engineer's Field Office that are not on this list.

The Contractor shall install the Engineer’s Field Office sign at a location approved by the Engineer. If the Engineer’s Field Office is not located within or adjacent to the contract limits, two (2) additional signs shall be displayed conspicuously within the contract limits in locations directed by the Engineer.

The Engineer’s Field Office shall be fully equipped and made available for use and occupancy by the inspection staff prior to the start of any contract work, and shall be made available after contract final acceptance as directed in writing by the Division Construction Engineer.

All furniture and equipment shall be fully assembled, operational, clean and serviceable. The Engineer’s Field Office shall be cleaned weekly or more often if required, and the timing of the cleaning operations shall be coordinated with the Engineer. The Contractor shall remove and dispose of all rubbish generated in the office and shall keep the office free from pests. The Contractor shall remove snow from all areas subject to vehicular circulation and parking.

After completion, all portable buildings or trailers, fencing, surfacing and utilities shall be removed from the location and the areas cleaned, loamed and restored as required. The Contractor shall be responsible for providing all necessary computer hardware, software and peripheral devices as well as high-speed Internet service to the Engineer’s Field Office until use and occupancy of the Engineer’s Field Office is relinquished by the Authority. Only internet services that can provide a minimum data transfer rate of 50 megabits per second will be considered acceptable. The Contractor shall be responsible for providing all necessary service connections to the Engineer’s Field Office and Engineer’s Field Office computer(s). In addition, the Contractor shall provide a cable or DSL modem and any other equipment necessary to provide the minimum specified data transfer rate.

4. **METHOD OF MEASUREMENT.** The Engineer’s Field Office will be measured for payment as the number of months satisfactorily provided, measured to the nearest 0.25 months.

- ITEM 637.11----25 – ENGINEER’S FIELD OFFICE – TYPE 1**
ITEM 637.12----25 – ENGINEER’S FIELD OFFICE – TYPE 2
ITEM 637.13----25 – ENGINEER’S FIELD OFFICE – TYPE 3
ITEM 637.14----25 – ENGINEER’S FIELD OFFICE – TYPE 4
ITEM 637.15----25 – ENGINEER’S FIELD OFFICE – TYPE 5

5. **BASIS OF PAYMENT.** The unit price bid per month for the Engineer’s Field Office shall include the cost of all labor, materials and equipment necessary to complete the work including property rental, utility charges and incidental expenses. Payment will be made for each month of availability for occupancy by the Engineer and inspection field staff.

No payment will be made under Engineer's Field Office when deficiencies in compliance with these requirements are not promptly addressed by the Contractor after notification by the Engineer. Should the aggregate of non-compliance days exceed 3 days in any one month, no payment shall be made for the entire month in which deficiencies were cited.

Monthly payments may be terminated prior to contract final acceptance by written notification by the Division Construction Engineer that such office will no longer be required on the contract. Payment for each month's occupancy of the Engineer’s Field Office after the date of contract final acceptance will be made as part of the final contract payment. Failure of the Contractor to supply documentation required to complete the final estimate may result in nonpayment during this delaying period.

During periods of contract extension of time where Engineering Charges are assessed, no payment will be made for occupancy and services, except that payment for each month's occupancy after the date of final acceptance will be made as part of the final estimate.

ITEM 699.04----25 - MOBILIZATION

1. DESCRIPTION:

- 1.01 Under this work the Contractor shall provide the following:
 - A. Necessary bonds, insurance, and prefinancing and set-up of necessary general plant, including shops, storage areas, Engineer's and Contractor's offices and such sanitary and other facilities as are required by local or state law or regulation.
 - B. Critical path method (CPM) schedule of operations as described in §108-01 of the TA Addendum.
 - C. M/WBE participation program meeting the M/WBE goals of the contract as described in §109-06 *Contract Payments* and in accordance with §102-12 *D/M/WBE Utilization*.

2. MATERIALS:

- 2.01 Unless otherwise specified, such materials as required for mobilization and are not to be part of the completed contract shall be as determined by the Contractor, except that they shall conform to any pertinent local or state law, regulation or code.

3. CONSTRUCTION DETAILS:

- 3.01 The work required to provide the above facilities and service for mobilization shall be done in a safe and workmanlike manner and shall conform with any pertinent local or state law, regulation or code. Good housekeeping consistent with safety and other requirements of this contract shall be maintained.

4. METHOD OF MEASUREMENT:

- 4.01 Payment for mobilization will be made on a lump sum basis.

5. BASIS OF PAYMENT:

- 5.01 The amount bid for mobilization shall not exceed four percent (4%) of the total contract bid price excluding the bid price for mobilization. Should the bidder exceed the foregoing four percent (4%), the Authority will make the necessary adjustment to determine the total amount bid based on the arithmetically correct proposal.

The amount bid shall include the furnishing and maintaining of services and facilities noted under Section 1.01 to the extent and at the time the Contractor deems them necessary for its operations, consistent with the requirements of this work and the contract.

The amount bid shall be payable to the Contractor with the first contract payment made for other contract work following acceptable completion of all requirements noted under Section 1.01.

Payment will be made under:

<u>Item Number</u>	<u>Item</u>	<u>Pay Unit</u>
699.04----25	Mobilization	Lump Sum

SPECIAL NOTES

CONFIDENTIAL INFORMATION

1. **Confidential Information:** “Confidential Information” means any information not generally known to the public, whether oral or written, that the Authority claims is confidential and discloses to Contractor for the purposes of performing work on the Project. Confidential Information may include, but is not limited to, operational and infrastructure information relating to: bid documents, plans, drawings, specifications, reports, product information and data, business and security processes and procedures; personnel and organizational data, and financial statements; information system IP addresses, passwords, security controls, architectures and designs; and such other data, information and images that the authority deems confidential. The Authority will identify written Confidential Information by marking it with the word “Confidential” and will identify oral Confidential Information as confidential at the time of disclosure to the Contractor.
2. **Exempt Materials:** Confidential Information does not include information which, at the time of the Authority disclosure to Contractor; (a) is already in the public domain or becomes publicly known through no act of Contractor; (b) is already known by Contractor free of any confidentiality obligations; (c) is information that the Authority has approved in writing for disclosure; or (d) is required to be disclosed by Contractor pursuant to law so long as Contractor provides the Authority with notice of such disclosure requirement and an opportunity to defend prior to any such disclosure.
3. **Permitted Use:** Contractor may use Confidential Information solely for the purposes of performing work on the Project. Contractor may share Confidential Information with its employees, consultants, sub-consultants, sub-contractors, suppliers, and agents that are necessary to perform work on the Project (“Authorized Personnel”), but must ensure that such Authorized Personnel execute a Confidentiality and Non-Disclosure Agreement as set forth in the Minimum requirements for the Handling and Treatment of Confidential Information. The Authority’s disclosure of Confidential Information to Contractor shall not convey to Contractor any right to or interest in such Confidential Information and the Authority shall retain all right and title to such Confidential Information at all times.
4. **Protections:** Contractor shall hold Confidential Information confidential to the maximum extent permitted by law. Contractor shall safeguard Confidential Information in accordance with the Minimum Requirements for the Handling and Treatment of Confidential Information.
5. **Return of Confidential Information:** Upon the written request of the Authority, Contractor shall return all written Confidential Information to the Authority.

EXTERNAL CONNECTIONS

If in order to perform work on the Project, Contractor must make an external connection to the Authority’s data communications infrastructure and/or access Authority information systems, Contractor shall in all respects comply with all Authority policies and procedures regarding such connections and information systems access and undertake whatever actions are necessary in the discretion of the Authority to ensure such compliance. Contractor shall be responsible for all costs associated with ensuring that its own network security measures comply with all Authority policies and procedures regarding external connections.

**MINIMUM REQUIREMENTS FOR THE
HANDLING AND TREATMENT OF CONFIDENTIAL INFORMATION**

Contractor shall meet the following minimum requirements relative to project information that is identified as **CONFIDENTIAL**.

Authorized Personnel:

Contractor shall require that all authorized individuals or entities (e.g., employees, consultants, sub-consultants, sub-contractors, suppliers and agents) (“Authorized Personnel”) to which it discloses **CONFIDENTIAL** information sign a Confidentiality and Nondisclosure Agreement (“Agreement”). Such Agreement shall provide that Authorized Personnel: are personally responsible at all times for protecting **CONFIDENTIAL** information that is in their possession or control; must always use proper precautions to safeguard against the unauthorized access and disclosure of **CONFIDENTIAL** information; must notify Contractor of any known or suspected instances of loss or theft of, or unauthorized access to, **CONFIDENTIAL** information; and must return all **CONFIDENTIAL** information to Contractor upon completion of the project. Contractor shall be responsible for enforcing the provisions of such Agreement through personal observation and supervision of Authorized Personnel and utilization of appropriate processes.

Contractor shall maintain a list of all Authorized Personnel which have access to **CONFIDENTIAL** information and must provide the Authority with such list upon the Authority’s request. Contractor shall update such list monthly and notify the Authority of any changes in such list.

Inventory Control:

Contractor shall create and maintain an inventory of all **CONFIDENTIAL** information that it provides to Authorized Personnel. Upon completion of the project, Contractor shall check all **CONFIDENTIAL** information returned from Authorized Personnel against the inventory. Contractor shall provide a copy of the checked inventory to the Authority.

Use and Storage:

Contractor shall implement reasonable processes during normal working hours to prohibit unauthorized individuals from gaining access to **CONFIDENTIAL** information that is within the Contractor’s custody and control. At times other than normal working hours, Contractor shall store **CONFIDENTIAL** information in a secure area, such as a fire-proof safe, locked desk, cabinet or other secure storage facility, where access can be controlled. Contractor shall control the access that Authorized Personnel have to **CONFIDENTIAL** information stored in such secure areas through the use of manual or automated locks and keys. Contractor shall maintain a list of Authorized Personnel who have access to such secure areas and the specific **CONFIDENTIAL** information therein.

Reproduction:

Contractor may reproduce **CONFIDENTIAL** information only to the extent necessary to carry out contract performance. Contractor must stamp/mark all **CONFIDENTIAL** information that is reproduced with the word **CONFIDENTIAL** and protect it in the same manner as the original.

Transportation:

To the extent feasible and reasonable, Contractor shall hand deliver **CONFIDENTIAL** information with instructions that only the addressee is allowed to open or view it. Contractor may send **CONFIDENTIAL** information that cannot be hand delivered via the U.S. Postal Service or express mail services (e.g., FEDEX) provided: it is packaged and sealed in a way that does not disclose its contents or the fact that it is **CONFIDENTIAL** information, and a signature from the recipient is required.

Under no circumstances shall a transportation method be used that cannot guarantee that **CONFIDENTIAL** information is accessed only by the intended recipient.

Disposal:

Contractor shall dispose of all **CONFIDENTIAL** information, regardless of its form or format, using a destruction method that prevents its unauthorized retrieval (e.g., crosscut or micro shredding, degaussing).

Loss, Theft or Unauthorized Access:

Contractor shall provide timely notice to the Authority upon discovery of any incident involving the loss or theft of, or unauthorized access to, **CONFIDENTIAL** information.

SPECIAL NOTE:
CONTROL OF MATERIALS

The Contractor's attention is directed to the TA Addendum, Section 106 – CONTROL OF MATERIAL, available from the Authority's website at: <http://www.thruway.ny.gov/business/addendum/index.html>. The Contractor understands and agrees that some or all of the off-site inspection and approval of material such as precast concrete items, structural steel, bridge bearings, concrete structural elements and/or their components to be used on this project will be done by the New York State Department of Transportation (NYSDOT) as the Authority's agent.

The Contractor agrees to the following conditions:

1. Whenever the Contractor receives direction from the NYSDOT regarding the approval/rejection of material that direction constitutes direction by the Authority under the contract and, shall be final and accepted as such by the Contractor.
2. The Contractor will not allow off-site materials subject to inspection and approval of NYSDOT to be shipped to the project site without direct authorization from the NYSDOT.
3. At the Pre-Award Meeting or as soon as practicable, but in any case, before the Pre-Construction Conference, the Contractor will provide the following information to the Thruway Authority's Director, Office of Construction Management, for transmittal to NYSDOT to arrange off-site inspections:
 - A. The name and address of each Manufacturer of all materials, and portions thereof, requiring off-site quality assurance to be incorporated into this highway project.
 - B. The name and address of each Fabricator fabricating each steel item or any portion thereof to be incorporated into this highway project.
 - C. The name and address of each Fabricator manufacturing structural pre-cast/pre-stressed items or any portion thereof to be incorporated into this highway project.
4. The Contractor agrees that it and its Subcontractors and Suppliers will acquire all materials to be incorporated into this Thruway project **only** through Manufacturing, Batching and Fabrication facilities approved by NYSDOT.

AVAILABILITY OF ELECTRONIC BID DATA

1. SUMMARY:

The New York State Thruway Authority (NYSTA) uses Project Bids Software for electronic bidding. Project Bids is a product of the American Association of State Highway and Transportation Officials (AASHTO) that is currently used by the majority of State Departments of Transportation. It is provided free of charge and can be used on almost any Windows-compatible PC. It integrates with many existing electronic bid preparation software and has import/export capability for use with database and spreadsheet systems. Project Bids allows bidders to receive electronic proposal bid item information from the NYSTA's internet web site and to produce both an electronic and a paper-based bid.

For additional information and downloads, see the NYSTA website at:
<http://www.nysthruway.gov/business/contractors/expedite/index.html>.

2. PARTICIPATION AND RELATIONSHIP TO PAPER DOCUMENTS:

The Authority's adoption of electronic bidding does not force any Contractor to bid electronically. Rather, participation is voluntary. If submitting a bid using infotech's Bid Express internet bidding service, no paper is required. If submitting an electronic bid on a CD, DVD or USB device delivered to the Authority in person or via a courier service, **bidders must also submit print outs that match the electronic file**. Project Bids prints a check code on every bid page that must match the check code in the computer file. As the check code changes every time the electronic file is modified, matching the codes verifies that the data on the printed bid is the same as in the electronic file. **In case of discrepancy, the printouts always prevail and are the primary legal document. Therefore, the printouts can be used to make any last-minute changes.**

3. THIRD-PARTY SOFTWARE:

The NYSTA endorses no particular product but expects all such vendors and individuals to voluntarily keep pace with changes in NYSTA specifications.

4. PROPOSAL NOTES AND CHANGES BY AMENDMENT:

Contractors are solely responsible for recognizing and properly responding to any and all special notes and circumstances printed in the Contract Proposal and any and all changes by amendment from the amendment documents and/or notices communicated to them by the NYSTA's Contracts Unit.

Amendments are posted online at: www.thruway.ny.gov/business/contractors/documents/index.shtml.

Whenever an amendment is issued, a Project Bids amendment file will also be issued and must be applied to your electronic bid. Do not bid without carefully reviewing the printed proposal and any and all changes by amendment. Proposal notes and circumstances include, but are not limited to, printed information on alternate, fixed and/or limited cost items and/or special circumstances regarding item placement and use.

SPECIAL NOTE:**REQUIREMENTS FOR CONTRACTOR'S UTILIZATION OF AREAS
OUTSIDE OF THE RIGHT-OF-WAY**

1. Before the contractor can utilize any area outside of the NYS Thruway Authority (NYSTA) Right of Way (or outside of a temporary easement obtained for the project by the NYSTA), for any work associated with this project, written approval to do so shall be obtained from the NYS Thruway Authority through the Project Engineer. The contractor's request for approval shall be in writing and the Authority shall be allowed 2 weeks to review the request and respond.
2. This requirement applies to areas such as, but not limited to: borrow areas, spoil areas, equipment and/or material storage areas, haul roads, batching areas, water points, shop areas, and all similar areas. This requirement does not apply to the Contractor's established and permanent headquarters, commercial borrow sources, commercial gravel pits, commercial quarries, and all similar areas.
3. The contractor's written request for approval shall include a letter report prepared by an Environmental Professional, acceptable to the Authority, documenting the investigation of the proposed site. The expectation is that an Environmental Professional visits the site, performs an assessment of the proposed use against all applicable environmental requirements, and then documents their findings and recommendations. The letter report shall include the following unless otherwise authorized by the Authority:
 - a) A written description of the activities the contractor wishes to perform at the proposed site, including timeframes.
 - b) Maps showing Federal and State regulated wetlands. The area proposed for use shall be depicted on each map.
 - c) A site location map which accurately shows the area proposed for use, adjacent property boundaries/owners, the location of all wetland boundaries observed, and any required erosion and sediment control measures. If present, wetlands shall be delineated in the field by the Environmental Professional with stakes and ribbon, and wetland delineation data forms shall be completed.
 - d) A written statement prepared by the Environmental Professional regarding the presence of any rare animals or plants or significant natural communities. The Environmental Professional shall use the NYSDEC Environmental Resource Mapper to make this determination. If any rare species are identified, then determine if the rare species are listed as endangered or threatened and whether the NYSDEC determines the proposed use may be harmful to the species or their habitat. If so, address to the satisfaction of the NYSDEC.
 - e) A copy of the applicable SPDES permit and any local municipal permits related to use of the site.
 - f) A listing of other Environmental Permits which were obtained by the Authority for the project. These are referenced in the contract proposal.
 - g) A completed NYSTA Property Release form. The form is available through the Project Engineer.
 - h) A plan showing all restoration work. This includes, but is not limited to, plans for grading, surface restoration details, and erosion and sediment control.
4. This requirement does not waive other provisions of the contract related to use of lands outside the Right of Way. Rather, it shall be viewed as supplementary. The following contract provisions still remain in effect:

§107-08 Protection and Restoration of Property and Landscape, Subsection B. Outside the Right of Way
§107-10 Managing Surplus Material and Waste

COMPLIANCE WITH SPDES REGULATIONS

The Contractor is advised that the NYS Thruway Authority has evaluated Stormwater requirements for this project and has determined that coverage is not warranted under NYS Department of Environmental Conservation's SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001). The Contractor shall read and understand the requirements of GP-0-20-001. In the event the Contractor's operations, e.g., clearing and grubbing, expanded staging area; will cause an increase in ground disturbance beyond the amount identified in the Contract Documents, coverage under GP-0-20-001 may be required. Prior to commencing these operations, the Contractor should immediately advise the Project Engineer, who will in turn discuss the request with the Project Designer and Division Environmental Specialist or Environmental Point of Contact.

- In the event coverage is required under GP-0-20-001 as a result of these operations, the Contractor will be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) and submit a Notice of Intent (NOI) with the NYS Department of Environmental Conservation.
- In the event coverage is required under GP-0-20-001 as a result of changes made by the Authority, the Authority will be required to prepare a SWPPP and submit a NOI.

In either case, the Contractor will not be allowed to proceed until verification of coverage under GP-0-20-001 has been provided to the Project Engineer. The Contractor shall make no claim against the Authority for delays resulting from preparing a SWPPP, filing a NOI, and seeking verification of permit coverage.

SPECIAL NOTE
EMBODIED CARBON REPORTING and ENVIRONMENTAL PRODUCT DECLARATIONS (EPDs)

Projects must comply with all applicable New York State (NYS) laws and policies to reduce the embodied carbon in building and infrastructure projects, including New York State Executive Order 22 (2022).

These laws and policies require Contractors to submit Environmental Product Declarations (EPDs) for certain building and construction materials supplied to State contracts. EPDs must be Product-specific Type III (Third Party Reviewed), in adherence with ISO 14025 *Environmental Labels and Declarations*, ISO 14044 *Environmental Management – Life Cycle Assessment*, and ISO 21930 *Core Rules for Environmental Product Declarations of Construction Products and Services*. Supply Chain-specific data should be used when available.

For permanently incorporated and temporary use construction materials manufactured and supplied for projects let after December 18, 2024, the Contractor shall ensure that all available EPDs are collected and submitted for asphalt mixtures, concrete mixtures (excluding precast), glass, and steel items when the quantity supplied to the project exceeds the values listed below. Units that are given in this document may differ from units listed in pay items and therefore, the Contractor must perform the necessary quantity conversion(s).

Construction Material	Minimum Quantity for Reporting (for Transportation Projects)
Concrete mixes	200 cubic yards or more (per mix design)
Asphalt mixes	8,000 short tons or more (per mix design)
Steel i. Rebar ii. Hollow Structural Sections iii. Fabricated Steel Plate iv. Hot-Rolled Sections v. Cold-Formed & Galvanized	20,000 pounds or more for rebar (category i.), per fabrication location 15,000 pounds or more for all others (categories ii – v), per fabrication location
Glass i. Flat Glass ii. Processed Glass iii. Insulated Glazing Units	2,000 square feet or more

The Contractor is not required to develop an EPD if one has not been developed by or for the manufacturer or supplier.

For projects that are active during the State Fiscal Year (April 1 - March 31) and are expected or known to meet the minimum quantities for reporting over the duration of the entire project, the Contractor shall complete and submit a “Contractor EPD Material Reporting Form” (Excel .xlsx format). The form is available on the Thruway Authority website at <https://www.thruway.ny.gov/business/contractors/forms/index.html#contractor>. The Contractor must submit the Contractor EPD Material Reporting form and all EPD(s) collected for the project to the Authority by emailing them to CarbonReports@thruway.ny.gov, with the Contract D number in the subject line of all e-mails. Questions about completing the form can be directed to the same e-mail address.

SPECIAL NOTE**DIESEL EMISSION REDUCTION ACT (DERA) REGULATORY COMPLIANCE**

All New York State Thruway Authority (NYSTA) Contractors are made aware that Environmental Conservation Law (ECL) 19-0323 and the New York State Department of Environmental Conservation (NYSDEC) regulation 6 NYCRR Part 248 *Use of Ultra Low Sulfur Diesel (ULSD) Fuel and Best Available Retrofit Technology (BART) for Heavy Duty Vehicles* requires 100% compliance as of December 31, 2019 of all regulated heavy duty diesel vehicles working on all State awarded contracts. A link to NYSDEC's Part 248 Annual Reporting Requirements which states the current deadlines is located at: <https://dec.ny.gov/regulatory/regulations/chapter-iii>. NYSTA and its Contractors are responsible for annual reporting.

All NYSTA Contractors shall make determinations of regulatory applicability for vehicles in their inventory used on active NYSTA contracts during each reporting year. These determinations shall be based on the definition of Heavy Duty Vehicle (HDV) including on and off road diesel vehicles having gross vehicle weights in excess of 8,500 pounds, excluding vehicles that are exempt as defined in 6 NYCRR 248-1.1(b)(14). Contractors shall also quantify ULSD fuel used by regulated vehicles in active contract work during the reporting year.

An electronic copy of 6 NYCRR Part 248 can be accessed at <http://www.dec.ny.gov/regs/2492.html>. Electronic copies of the Regulated Entity Vehicle Inventory Form and the Regulated Entity and Contractors Annual Report Form can be accessed under Part 248 – Use of Ultra Low Sulfur Diesel Fuel and Best Available Retrofit Technology for Heavy Duty Vehicles at the following link: <https://www.dec.ny.gov/fs/docs/spreadsheets/248annrptfrm.xlsx>.

To allow for required reports to be submitted to NYSDEC by the regulatory deadline of November 1, each year, NYSTA Contractors shall submit DERA annual reports to NYSTA by October 1, of every year reporting the required information from the previous reporting year (i.e., all 2019/2020 information to NYSTA by October 1, 2020, etc.). The following numbered information shall be submitted:

1. Inclusion of “DERA” and calendar year being reported in subject line of email
2. Contact information including firm name, contact person, phone number and e-mail
3. Estimated annual total quantity of ULSD fuel used by covered vehicles on NYSTA contracts
4. Required Fleet information for covered vehicles on NYSTA contracts

Electronic mail submissions can be sent to dieselreport@thruway.ny.gov

SPECIAL NOTES**GREEN CONSTRUCTION REQUIREMENTS****ULTRA LOW SULFUR DIESEL FUEL**

In order to reduce diesel emissions, the Contractor shall use Ultra Low Sulfur Diesel (ULSD) fuel to operate all diesel engines used to complete the work that will operate for 10 hours or more on the contract site. ULSD fuel requirements shall apply to:

- All diesel engines/equipment.
- Stationary and mobile equipment.
- Owned, leased and rented equipment.

The hours the piece of equipment is used to complete the work is defined as the actual time the engine is running. The time may be continuous or discontinuous and includes warm-up periods idling, in traffic periods, etc.

The Contractor shall correct any non-compliance when any diesel powered construction equipment is in non-compliance. The Contractor shall correct non-compliance within a 24-hour period.

SPECIAL NOTES**GREEN CONSTRUCTION REQUIREMENTS****CONTROLLING EXPOSURE TO DIESEL EXHAUST**

The Contractor shall exercise measures to protect “Sensitive Receptors” from the impacts of diesel exhaust fumes. Sensitive Receptors include, but are not limited to: hospitals, schools, daycare facilities, building fresh air or ventilation intakes, elderly housing or convalescent facilities. The Contractor shall ensure that diesel powered engines are located away from building air conditioners and windows.

The goal is to minimize exposure of Sensitive Receptors in close proximity to diesel exhaust, in terms of both concentration and time. In general, close proximity is defined as within 15 meters of a Sensitive Receptor. Mitigation techniques include positioning stationary equipment exhausts greater than 15 meters from Sensitive Receptors, extension of equipment exhausts through the use of flexible tubing; protecting building air intakes; and the use of moving operations.

Idling time for diesel powered equipment shall be limited to three consecutive minutes for delivery and dump trucks and all other diesel powered equipment except as follows:

- When a “mobile source” (vehicle) is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control.
- When it is necessary to operate a loading, unloading or processing device.
- When the outdoor temperature is less than - 3°C (27°F).
- When the “mobile source” is being repaired.

Arrow panels and portable variable message signs shall be solar powered wherever possible or practical.

Whenever possible and practicable, the Contractor shall establish staging areas for diesel powered vehicles waiting to load or unload materials at the work site. Such areas shall be located where diesel emissions have the least impact on Sensitive Receptors and the general public.

SPECIAL NOTES**GREEN CONSTRUCTION REQUIREMENTS****DUST CONTROL**

The Contractor shall minimize dust from disturbed soil surfaces or other materials that can cause off-site damage, health hazards and traffic safety problems. Dusty conditions resulting from the Contractor's operations shall be corrected at no additional cost to the State. Buffer areas of vegetation should be left where practical. Water quality shall be considered when selecting materials for dust control. An approved dust palliative may be used in conformance with applicable conditions placed on its use. A list of acceptable dust palliatives is available at: www.nysdot.gov/divisions/engineering/technical-services/geotechnical-engineering-bureau/dust-palliatives .

For areas not subject to traffic, products and materials may be applied or placed on soil surfaces to prevent airborne migration of soil particles, including:

- Vegetative Cover –provides the most practical method of dust control.
- Mulch (including rolled erosion control products) –provides a fast, effective method of dust control.
- Spray Adhesives –Generally composed of polymers in a liquid or solid form mixed with water to form an emulsion that is sprayed on the soil surface. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations for the specific soils on the site. Adhesives shall not be applied to wet soils or if there is a probability of precipitation within 48 hours.

For areas subject to traffic (traveling public or construction traffic) products and materials may be applied or placed on soil surfaces to prevent airborne migration of soil particles, including:

- Water Sprinkling – The site may be sprayed with water until the surface is wet. This is especially effective on haul roads and access routes.
- Polymer Additives –Polymers shall be mixed with water and applied to the driving surface using mixing ratios and application rates in accordance with the manufacturer's recommendations. No application of the polymer will be made if there is a probability of precipitation within 48 hours of its proposed use. Any polymers must be used in accordance with the NYSDEC issued "Conditions for Use" and "Application Instructions." This information can be obtained from the NYSDEC website.
- Barriers – Woven geotextiles or stone can be placed on the driving surface to effectively reduce dust throw and particle migration on haul roads.
- Windbreak – A silt fence or similar barrier can control air currents at horizontal intervals equal to ten times the barrier height. Preserve existing vegetation that acts as a wind barrier as much as practical.
- Wheel Washing – Mechanical or manual wet-method cleaning of on-road construction vehicle tires prior to leaving site.

SPECIAL NOTE**GENERATOR KNOWLEDGE FOR DISPOSAL OF TREATED WOOD**

The U.S. Environmental Protection Agency (EPA) and New York State Department of Environmental Conservation (NYSDEC) technique for evaluating whether a material is hazardous for toxicity is the Toxicity Characteristic Leaching Procedure (TCLP). TCLP testing of pentachlorophenol (“penta”) and creosote treated wood by the Electric Power Research Institute, Association of American Railroads, and others has conclusively demonstrated that treated wood products are not a hazardous waste. Under EPA’s and NYSDEC’s rules, such “generator knowledge” can be utilized in place of testing to determine that a waste is not hazardous. This information can be used as evidence that treated wood products can be disposed as non-hazardous waste, based on generator knowledge, in lieu of physical testing.

Generator knowledge information, obtained from the American Wood Preservers Institute (AWPI) can be viewed at their web site located at www.awpi.org . AWPI’s information comes from studies conducted by the Electric Power Research Institute (EPRI), the Washington Public Ports Association (WPPA), and the Association of American Railroads (AAR). EPRI test results are for both penta-treated and creosote-treated wood. WPPA and AAR test results are for creosote-treated wood.

NOTE: Arsenically-treated (*e.g.*, chromated copper arsenate [CCA]) wood products disposed by the end user are exempt from classification as a federal hazardous waste regardless of the TCLP results for specified constituents from any individual sample. Also, wood products treated with preservatives that contain no TCLP constituents (*e.g.*, Kodiak Preserved Wood containing Copper Dimethyldithiocarbamate) are not hazardous waste.

SPECIAL NOTES
FOREST INSECT DISEASE CONTROL

MOVEMENT OF WOOD MATERIALS FROM PROJECT SITES

Pursuant to New York State Department of Environmental Conservation (NYSDEC) Regulations, 6NYCRR, part 192.5, *Firewood Restrictions to Protect Forests from Invasive Species*, it is unlawful to transport any firewood material more than 50 miles from its point of origin to limit the spread of invasive insect species. “Firewood” shall mean all wood of any species, cut or not cut, split or not split, regardless of length which is (a) in a form and size appropriate for use as a fuel, or (b) which is destined for use as a fuel. Firewood shall not include kiln-dried dimensional lumber, wood that has been chipped to a maximum piece size that is no greater than 1-inch in two dimensions, or logs or wood being transported to sawmills or other manufacturing facilities for use in their primary operations. All Thruway Authority (TA) projects are subject to this requirement. Additional information can be found at the following link: <http://www.dec.ny.gov/regs/4079.html>

If firewood is to be moved within 50 miles of its point of origin a “Self-Issued Certificate of Origin for Transport and Possession of Untreated Firewood” must be completed. This form can be found at the following link: http://www.dec.ny.gov/docs/lands_forests_pdf/selfisscert.pdf

INVASIVE SPECIES AND QUARANTINE MATERIALS MOVEMENT

NYSDEC Regulations, 6NYCRR, part 192.6, *Quarantine Orders*, No person shall fail to comply with the provisions of any quarantine order issued by the Department pursuant to Environmental Conservation Law (ECL) section 9-1303. To the extent the provisions of section 192.5 *Firewood Restrictions to Protect Forests from Invasive Species* and such quarantine order are in conflict, the more restrictive provision shall apply. TA is under New York State and Federal ash quarantines where it is unlawful to transport any ash material outside of several counties (see quarantine maps at http://www.agriculture.ny.gov/PI/eab/emerald_ash_borer_quarantine.pdf and <http://www.dec.ny.gov/animals/47761.html>). Therefore, any parts of ash trees, including leaves, bark, stumps, limbs, branches, roots, and ash logs of any length, and firewood (see above for definition of firewood) from ANY tree species, are all considered regulated articles and must be handled properly. Tree-felling, clearing and grubbing operations at project sites may result in the contractor’s need to handle materials from ash tree species and/or firewood or chips from ANY tree species. To the greatest extent possible in areas of clearing and grubbing, ash trees should be pre-identified and marked prior to commencement of construction to promote the proper handling of these materials.

Un-infested ash materials in any form may be moved offsite, but only within the quarantine zone. Firewood from ANY tree species may never be moved more than 50 miles and never from the quarantine area, into non-quarantine areas. Transport of any wood needs the required transport certificate: http://www.dec.ny.gov/docs/lands_forests_pdf/selfisscert.pdf

Note: According to the quarantine maps, several parts of the Thruway are the boundary between the quarantine area (south) and the non-quarantine area (north). Therefore, transport of any wood material would be prohibited across the roadway from south to north, but acceptable from north to south.

Note: Any ash materials that are known or suspected to be infested with live emerald ash borer pests in any life stage must be reported immediately to the EIC and/or designee for further appropriate action and coordination with regulatory agencies.

SPECIAL NOTES
FOREST INSECT DISEASE CONTROL

Any ash materials chipped to a size no greater than 1-inch in at least two dimensions is considered safe to be transported outside the quarantine zone, but only in accordance with a Chip/Mulch Agreement and Transport Agreement received from the NYS Department of Agriculture and Markets (NYSDAM). If any regulated ash materials must be moved outside of the currently quarantined area, a certification from the NYS Department of Agriculture and Markets (NYSDAM) or USDA Animal & Plant Health Inspection Service (APHIS) must be obtained. For further information see the following links:

<http://www.dec.ny.gov/animals/47761.html>

<http://www.agriculture.ny.gov/PI/eab.html>

MARKER RELOCATION DURING CONSTRUCTION
EXISTING MILE MARKERS AND TENTH-MILE MARKERS AND DELINEATORS

All mile markers and tenth-mile markers are to be maintained during construction of this project. The Contractor will be allowed to temporarily relocate them to avoid damage to them or for constructability purposes. The mile markers and tenth-mile markers may be moved but the new location must be visible to traffic and be reasonably close to their original location. The mile markers must be returned to their original location upon completion of construction at that location. Cost for this work shall be included in the bid price for the various pay items in the contract, unless the work is specifically called for in the contract documents.

If the contract calls for replacement of existing mile markers and/or tenth-mile markers, they shall remain in place, or reset to a location reasonably close to their original location, until the new markers are installed.

SPECIAL NOTE**BIRD / BAT WASTE AWARENESS**

The Contractor should be aware that there may be bird/bat waste in the work area. The waste may contain trace amounts of metals and the fungus *Histoplasma capsulatum*. Exposure to this fungus can result in the disease histoplasmosis. Proper health and safety precautions shall be identified in the contractor's health and safety plan in accordance with section 107-05. The disposal facility that accepts the bird/bat waste may need documentation as to its composition to determine that it is non-hazardous and/or otherwise suitable for disposal at that location.

US CUSTOMARY FUEL PRICE ADJUSTMENT

FUEL PRICE ADJUSTMENT ¹ CONVERSION FACTORS		
MATERIAL DESCRIPTION	CONVERSION FACTOR	ITEM NUMBER ^{2,7}
Unclassified Excavation	0.35 gal/yd ³	203.02
Embankment	0.10 gal/yd ³	203.03, 620.XX
Fill	0.45 gal/yd ³	203.05, 203.06, 203.07, 203.08XX, 203.20, 203.21, 203.25
Controlled Low Strength Material	1.00 gal/yd ³	204.01, 204.02, 204.03, 204.04
Trench / Culvert / Structure Excavation	0.50 gal/yd ³	206.01, 206.0201
Bituminous Stabilized Course	1.40 gal/yd ³	302.01, 307.01
Subbase Course	1.00 gal/yd ³	304 Items
Asphalt Mixtures	2.50 gal/ton	404 Items ³ , 405.01, 406 Items ³ , 421 Items ³ , 608.020102 ³ , 619.0601 ⁴ , 624.02XXXX ^{3,4} , 633.14 ^{3,4} , 633.15 ^{3,4} , 633.16 ^{3,4}
Diamond Grinding	0.13 gal/yd ²	505 Items ³
Milling	0.10 gal/yd ²	490 Items
Cold Recycling Asphalt Concrete	0.08 gal/yd ²	416.XXXXXXRR
Portland Cement Concrete Pavement	1.00 gal/yd ³	502 Item ³ , 503.1010, 603.1011, 503.1012
Fill Type Retaining Walls	0.45 gal/yd ³	554.30XX ⁵ , 554.31 ⁵ , 554.4X ⁵
Footing Concrete & Concrete for Structures – All classes	1.00 gal/yd ³	555.0104, 555.0105, 555.05, 555.06, 555.07, 555.08, 555.09, 555.10, 555.11, 555.0011, 555.0012, 555.0021, 555.0022, 555.0031, 555.0032
Structural Approach Slabs	0.33 gal/yd ²	557.2001, 557.2002, 557.2003, 557.2009, 557.22, 557.1011, 557.1012, 557.1013, 557.1019, 557.2019
Superstructure Slabs with bottom formwork	0.25 gal/yd ²	557.01XX, 557.07, 557.30, 557.41XX, 557.1111, 557.1112, 557.1113, 557.1119, 557.13, 557.2119
Superstructure Slabs - no bottom formwork	0.15 gal/yd ²	557.05XX, 557.09, 557.43XX, 557.1211, 557.1212, 557.1213, 557.1219, 557.2219
Overlay Concrete	0.05 gal/yd ²	584.3001nn, 584.3002nn, 584.3009nn, 584.3101nn, 584.3102nn, 584.3103nn, 584.3109nn, 584.3200nn, 584.0301nn, 584.0302nn, 584.0303nn, 584.0309nn, 584.0320nn
Concrete Barrier, Type A	0.16 gal/ft	606.3001, 606.3021, 606.3031
Concrete Barrier, Type B	0.19 gal/ft	569.01, 606.3002, 606.3022, 606.3032
Concrete Barrier, Type C	0.22 gal/ft	606.3003, 606.3023, 606.3033
Concrete Barrier, Half Section	0.11 gal/ft	569.02, 569.06, 606.3004, 606.3024, 606.3034
Concrete Barrier, Single Slope	0.23 gal/ft	569.05, 569.07, 606.3041, 606.3043, 606.3044

US CUSTOMARY FUEL PRICE ADJUSTMENT

FUEL PRICE ADJUSTMENT ¹ CONVERSION FACTORS		
MATERIAL DESCRIPTION	CONVERSION FACTOR	ITEM NUMBER ^{2,7}
Concrete Barrier Texas & Wide, Single Slope	0.28 gal/ft	569.08, 606.3051, 606.3053, 606.3054
Concrete Barrier Half Section, Single Slope	0.17 gal/ft	569.04, 606.3061, 606.3063, 606.3064
Vertical Faced Concrete Parapet	0.10 gal/ft	569.03
Removal and Replacement of Structural Concrete	1.00 gal/yd ³	582.05, 582.0051
Gravel, Stone, Slag	1.00 gal/yd ³	411.01, 411.02, 411.03, 623.1X
Concrete Sidewalks and Driveways	1.00 gal/yd ³	608.01XX
Concrete Curb	0.10 gal/ft	609.04XX, 609.05XX
Topsoil	0.45 gal/yd ³	610.10, 610.11XX, 610.14XX
Turf Establishment - Performance	0.05 gal/yd ³	610.16010020

FUEL PRICE ADJUSTMENT¹ CONVERSION FACTORS**Notes:**

1. In accordance with Standard Specification §698-3.02, the index value for the fuel price adjustment is the posted price for the month of bid letting.
2. Item Number - This is the contract pay item number under which these materials are most frequently paid. Unless indicated otherwise, materials similar to those indicated under the column entitled "Material Description" are also eligible for adjustment using the factor listed for a similar material with the same pay units regardless of the actual contract pay item number.
3. Quality Adjustment Items (404/406/502/505/555/557/569/582/584/608/624) are not eligible for fuel price adjustment.
4. Fuel Price Adjustment Conversion Factor based on units of TONS of asphalt placed, not the pay units of this item.
5. Fuel Price Adjustment Conversion Factor based on units of CY of backfill paid under this item, not the pay units of this item.

Compliance Requirements and Procedures

*For Participation of
Disadvantaged/Minority/Women/Service-Disabled Veteran-Owned
Business Enterprises
and
Equal Employment Opportunity
on
NYS Thruway Authority Contracts*

(DBE/MWBE/SDVOB/EEO)

CONTRACT GOALS FOR DBE/MWBE/SDVOB PARTICIPATION

The New York State Thruway Authority herein after, (“Authority”) is committed to providing and ensuring Minority-owned Business Enterprises (MBE), Women-owned Business Enterprises, (WBE) Service-Disabled Veteran-Owned Business Enterprises (SDVOB) and Disadvantaged Business Enterprises (DBE) with opportunities to participate in the Authority’s contracting and procurement processes in accordance with Title 49, Part 26 of the United States Code of Federal Regulations (CFR), New York State Executive Law, Articles 15-A, 17-B, and all applicable federal and state laws, rules, regulations and Executive Orders, including but not limited to Executive Order 177 - Prohibiting State Contracts with Entities that Support Discrimination, as incorporated herein and/or contained in the NYS Department of Transportation Standard Specifications Section 102, “Bidding Requirements and Conditions” to the extent applicable to the contract.

Goal(s) have been established for this Contract/Agreement, expressed as a percentage of the total Contract/Agreement amount as follows:

Disadvantaged Business Enterprise - DBE (Federal-Aid)

Disadvantaged Business Enterprise (DBE) Participation Goal: _____%

Directories and/or Information related to the current certification status of Disadvantaged Business Enterprises can be obtained from the New York State Certified DBEs website at: <https://nysucp.newnycontracts.com>

Minority/Women-Owned Business Enterprise - MWBEs (Non Federal-Aid)

Minority Business Enterprise (MBE) Participation Goal _____ 7.5 %

Women's Business Enterprise (WBE) Participation Goal _____ 7.5 %

Directories and/or information related to the current certification status of Minority/Women Business Enterprises can be obtained from the New York State Certified MWBE website at: <ny.newnycontracts.com>

Service-Disabled Veteran-Owned Business Enterprise (SDVOB)

Service-Disabled Veteran-Owned Business Participation Goal _____ 3 %

Directories and/or information related to the current certification status of Service-Disabled Veteran Business Enterprises can be obtained from the New York State Certified SDVOB website at: <ogs.nv.gov/veterans/>

Equal Employment Opportunity

Minority _____ 0 %

Female _____ 0 %

For more information about the development of the goals, see Federal Register, Vol. 45, No. 194, at 65976-65991 (October 3, 1980) (minorities) and Federal Register, Vol. 45, No. 251 at 85750-85751 (December 30, 1980) (females). The text of these Federal Register notices can be found at Federal Register Notice: Vol. 45, No. 194, at 65976-65991 (October 3, 1980)

Training Special Provisions _____ Yes No

Training/Special Provision supplements each of the foregoing prescribed specific Equal Employment Opportunity percentage goals for utilization of minorities and women in the performance of work for the geographic location of the contract, included in this Proposal entitled “Equal Employment Opportunity (EEO) Requirements.”

CHART A

GOALS FOR MINORITY PARTICIPATION

County	%	County	%	County	%
Albany	3.2	Herkimer	2.1	* Richmond	
Allegany.....	6.3	Jefferson	2.5	Rockland	22.6
Broome	1.1	* Kings		St. Lawrence	2.5
* Bronx		Lewis	2.5	Saratoga	3.2
Cattaraugus	6.3	Livingston	5.3	Schenectady	3.2
Cayuga	2.5	Madison	3.8	Schoharie	2.6
Chautauqua	6.3	Monroe	5.3	Schuyler	1.2
Chemung	2.2	Montgomery	3.2	Seneca	5.9
Chenango	1.2	Nassau	5.8	Steuben	1.2
Clinton	2.6	* New York		Suffolk	5.8
Columbia	2.6	Niagara	7.7	Sullivan	17.0
Cortland	2.5	Oneida	2.1	Tioga	1.1
Delaware	1.2	Onondaga	3.8	Tompkins	1.2
Dutchess	6.4	Ontario	5.3	Ulster	17.0
Erie	7.7	Orange	17.0	Warren	2.6
Essex	2.6	Orleans	5.3	Washington	2.6
Franklin	2.5	Oswego	3.8	Wayne	5.3
Fulton	2.6	Otsego	1.2	Westchester	22.6
Genesee	5.9	Putnam	22.6	Wyoming	6.3
Greene	2.6	* Queens		Yates	5.9
Hamilton	2.6	Rensselaer	3.2		

* The following goal ranges are applicable to the indicated trades in the Counties of Bronx, Kings, New York, Queens and Richmond.

Electricians.....	9.0 to 10.2	Bricklayers.....	13.4 to 15.5
Carpenters	27.6 to 32.0	Asbestos workers.....	22.8 to 28.0
Steam fitters	12.2 to 13.5	Roofers	6.3 to 7.5
Metal lathers.....	24.6 to 25.6	Iron workers (ornamental).....	22.4 to 23.0
Painters.....	26.0 to 28.6	Cement masons.....	23.0 to 27.0
Operating engineers	25.6 to 26.0	Glaziers.....	16.0 to 20.0
Plumbers	12.0 to 14.5	Plasterers	15.8 to 18.0
Iron workers (structural)	25.9 to 32.0	Teamsters.....	22.0 to 22.5
Elevator constructors	5.5 to 6.5	Boilermakers	13.0 to 15.5
		All others	16.4 to 17.5

GOALS FOR FEMALE PARTICIPATION

Goal _____ 6.9%

COMPLIANCE REQUIREMENTS AND PROCEDURES

It is the policy of the New York State Thruway Authority (“Authority”) to comply with the provisions of Article 15-A of the New York State Executive Law, which requires that every contract over \$25,000 will afford equality of economic opportunities for minority group members and women, the facilitation of participation by minority-owned business enterprises and women-owned business enterprises. The Authority shall establish separate goals for participation of certified minority-owned business enterprises and women-owned business enterprises on all Authority contracts where applicable.

In addition, it is the policy of the Authority to ensure participation of DBEs on Federal-Aid contracts, pursuant to the provisions of Title 49, Part 26 of the United States Code of Federal Regulations.

Article 17-B of the New York State Executive Law provides for more meaningful participation in public procurement by certified Service-Disabled Veteran-Owned Business Enterprises (“SDVOBs”); thereby further integrating such businesses into New York State’s economy. The Authority recognizes the need to promote the employment of service-disabled veterans and to ensure that certified SDVOBs have opportunities for maximum feasible participation in the performance of Authority contracts.

The Authority is further committed to providing equal training and employment opportunities to minorities and women to participate in the Authority’s contracting and procurement processes, and by ensuring nondiscrimination in accordance with Appendix A - Standard Clauses for New York State Thruway Authority Contracts, including Clause 4 – Non-Discrimination Requirements, Clause 11 - Equal Employment Opportunities for Minorities and Women, Executive Order 11246, Executive Order 177, Training/Special Provisions and/or all applicable, federal, state, laws, rules, regulations and Executive Orders.

1. GENERAL PROVISIONS

- A. The Contractor and/or all subcontractors/subconsultants, shall comply with the applicable laws, rules, regulations and provisions governed by this Contract/Agreement, in addition to any nondiscrimination or diversity practices and provisions of the Contract/Agreement at no additional cost to Authority.
- B. These provisions and requirements shall be included in all subcontracting/subconsultant contracts/agreements so that these requirements and provisions shall be binding upon all subcontractors/subconsultants, performing work under this Contract/Agreement.
- C. The Contractor/Consultant represents and warrants that, as a condition for award of the Contract, the Contractor/Consultant has submitted a Statewide Utilization Management Plan (“SUMP”) via the NYS Contract System (NYSCS) if required by Authority, which lists all proposed Subcontractors/ subconsultants including an identification of the NYS certified DBE/MWBE/SDVOB subcontractors/subconsultants/ suppliers the Contractor/Consultant intends to use to perform the Work of the Contract and to achieve the DBE/MWBE/SDVOB Contract Goals established in the Contract Documents. In addition, or alternatively, Contractor/Consultant may have submitted a request for a waiver. Prior to award of the Contract, the Authority approved Contractor’s/Consultant’s plan to achieve the DBE/MWBE/SDVOB Contract Goals established in the Contract Documents (DBE/MWBE/SDVOB Utilization Plan) to the extent the Authority did not approve Contractor’s/Consultant’s request for a waiver of part or all of the DBE/MWBE/SDVOB Contract Goals. The Authority approval of the DBE/MWBE/SDVOB Utilization Plan approves a Subcontractor/Subconsultant only for the purpose of the DBE/MWBE/SDVOB Utilization Plan.

MBE PROVISIONS FOR NON-FEDERAL AID CONTRACTS AND AGREEMENTS**2. MINORITY/WOMEN-OWNED BUSINESS ENTERPRISES (MWBEs)**

In accordance with Article 15-A of the Executive Law, including regulations promulgated thereunder, the Authority has established the Minority-Owned Business Enterprise (“MBE”) and/or Women-Owned Business Enterprise (“WBE”) participation goals for this Contract/Agreement.. Contractor shall facilitate MWBE participation for the scopes of work to be performed under this Contract/Agreement, to satisfy the participation goals, or document good faith efforts taken to fulfill the goals in a manner prescribed by the Authority in accordance with the Compliance Requirements and Procedures specified herein.

The goals are applicable to the total amount payable under any Contract/Agreement awarded from this procurement and any changes made to the Contract/Agreement.

1. The Authority establishes MWBE goals for all applicable contracts. The MWBE goals for this Contract/Agreement are located on the “Contract Goals” page of this document and can also be found in the contractors/consultants documents for this Contract/Agreement.
2. For purposes of providing meaningful participation to certified MWBEs on this Contract/Agreement and in an effort to attain the certified MWBEs contract goals identified for this Contract/Agreement, the Contractor should reference the directory of MWBEs at the following internet address: ny.newnycontracts.com.
3. The Contractor understands that only sums paid to MWBEs for the performance of a Commercially Useful Function, as that term is defined in 5 NYCRR § 140.1, may be applied towards the achievement of the applicable MWBE participation goal.

In the performance of this Contract/Agreement, the monetary value of fees, or markup percentage, charged by the MWBE shall be deemed to represent the Commercially Useful Function of the MWBE serving as a broker.

4. The Contractor agrees to provide, upon request by the Authority, documentation and/or evidence of actions taken to demonstrate “Good Faith Efforts,” in accordance with 5 NYCRR § 142.8, to provide meaningful participation by MWBEs as subcontractors and suppliers in the performance of this Contract/Agreement.

3. MWBE UTILIZATION REQUIREMENTS

The Contract’s/Agreement’s MWBE goals have been established by the Authority based on certified MWBE availability, job assignments, services to be performed and/or type of work to be performed under the Contract/Agreement.

In the performance of this Contract/Agreement, 60% of the total participation value shall be deemed to represent the Commercially Useful Function of the MWBE serving as a supplier and the mark up and/or broker’s fee shall represent the Commercially Useful Function of the MWBE serving as a broker.

- A. The Contractor shall certify that the Utilization Plan identifies all subcontractors/subconsultants reflected on Exhibit D of the Contract/Agreement.
- B. The Contractor agrees to adhere to the approved MWBE Utilization Plan in the performance of the Contract/Agreement.

- C. The Contractor further agrees that failure to submit and/or adhere to such MWBE Utilization Plan shall constitute a material breach of the terms of the Contract/Agreement. Upon the occurrence of such a material breach, the Authority shall be entitled to any remedy provided herein, including but not limited to, a finding that the Contractor is non-responsible.

Utilization Plan - All Subcontractors (TA-W1022)

4. REPORTING

The Contractor is required to submit forms TA-1023 or TA-W1059 on or before the 10th of each month, following the month being reported. Monthly reports must be submitted via email, to Compliance@thruway.ny.gov, however, during the term of the contract, the Contractor may arrange to provide such reports via a non-electronic method to the Authority by the 10th day following the end of each month during the term of the Contract/Agreement.

TA-W1023 Payments to DBE/MWBE Subcontractor Firms

5. COMPLIANCE

The Contractor will comply with any procedures and guidelines established by the Director of the Division of Minority and Women-Owned Business Enterprise (hereinafter the Director) under the authority of New York State Governor's Executive Order 8, issued August 3, 1983 (hereinafter Executive Order 8) and will comply with any rules, regulations and orders of the Director as may be promulgated pursuant to or under the authority of Executive Order 8, or other applicable law or order.

6. MWBE WAIVERS

- A. Prior to submission of a request for a partial or total waiver, Contractor shall speak to someone from the Authority's Office of Compliance for guidance.
- B. In accordance with 5 NYCRR § 142.7, a Contractor that is able to document good faith efforts to meet the goal requirements, as set forth herein, may submit a request for a partial or total waiver on Form TA-W1077, accompanied by supporting documentation. A Contractor may submit the request for waiver at the same time it submits its MWBE Utilization Plan.

Supporting documentation of good faith efforts shall include, but not be limited to:

1. Evidence of targeted and specific outreach to MWBEs;
2. Logs, written correspondence, records of telephone contacts and other information to document responses from MWBEs to the Contractor outreach;
3. Copies of advertisements for participation by MWBEs in appropriate general circulation, trade, and minority or women-oriented publications;
4. The dates of attendance at any pre-bid, pre-award, or other meetings, if any, scheduled by the Authority with MWBEs; and,

5. Information describing specific steps undertaken by the Contractor to reasonably structure the Agreement's scope of work to maximize opportunities for MWBE participation.
- C. If a request for waiver is submitted with the MWBE Utilization Plan and is not approved by the Authority at that time, the provisions of clauses (C - H) will apply.
- If the documentation included with the Contractor waiver request is complete, the Authority shall evaluate the request and issue a written notice of acceptance or denial within 20 business days of receipt.
- D. Contractor shall attempt to utilize, in good faith, certified MWBEs, during the performance of the Contract/Agreement. Requests for a partial or total waiver of established goal requirements may be made to the Authority, at time of bid/proposal submission, subsequent to award of the Contract/Agreement or at any time during the term of the Contract/Agreement, but must be made no later than prior to the submission of a request for final payment on the Contract/Agreement.
- E. If the Authority, upon review of the MWBE Utilization Plan and Monthly MWBE Form TA-1023 – Payments to DBE/MWBE/SDVOBs, determines that Contractor is failing or refusing to comply with the Contract's/Agreement's MWBE goals and no waiver has been granted in regards to such non-compliance, the Authority may issue a notice of deficiency to the Contractor.
- F. The Contractor must respond to the notice of deficiency within seven business days of receipt. Such response may include a request for partial or total waiver of the Contract's/Agreement's MWBE goals.
- G. If the Contractor, after making good faith efforts, is unable to achieve the MWBE goals stated herein, the Contractor may submit a request for a waiver to the Office of Compliance. Such waiver request must be supported by evidence of the good faith efforts by the Contractor to achieve the maximum feasible MWBE participation towards the applicable MWBE goals. If the documentation included with the waiver request is complete, the Authority shall evaluate the request and issue a written notice of approval or denial within twenty (20) business days of receipt.
- H. If the Authority, upon review of the MWBE Utilization Plan and the forms TA-W1023 or TA-W1059 as described in Section 4, or any other relevant information, determines that the Contractor is noncompliant, deficient or failing to document the good faith efforts to meet the Contract's/Agreement's MWBE goals or requirements and no waiver has been issued in regards to such non-compliance, the Authority may issue a notice of deficiency to the Contractor. The Contractor must respond to the notice of deficiency letter within seven (7) business days of receipt. Such response may include a request for partial or total waiver of the Contract's/Agreement's MWBE goals.

Waiver requests shall be sent to the Authority's Office of Compliance at Compliance@thruway.ny.gov.

Contractor Forms:

Forms are located at: thruway.ny.gov/business/contractors/forms/index.html

Questions regarding compliance with MWBE participation goals, requirements and provisions should be directed to the Authority's Office of Compliance.

7. NON-COMPLIANCE

- A. Where the Authority determines that the Contractor is not in compliance with the requirements specified herein and/or other contract requirements, refuses to comply with such requirements, or if the Contractor is found to have willfully and intentionally failed to comply with the MWBE participation goals, the Contractor may be found in breach of the contract, which may result in withholding of any mobilization pay item and monthly estimates, a delay in award of the Contract/Agreement, a finding that the Contractor is non-responsible, and/or the Authority may impose liquidated damages.
- B. Such liquidated damages shall be calculated as an amount equaling the difference between:
 1. All sums identified for payment to MWBEs had the Contractor achieved the contractual MWBE goals; and
 2. All sums actually paid to MWBEs for work performed or materials supplied under the Contract/Agreement.
- C. In the event a determination has been made by the Authority, after Contractor has been afforded due process, which requires the payment of liquidated damages, Contractor shall pay such liquidated damages to the Authority within sixty (60) days after such determination or the Authority shall have the ability to withhold such amount from Contractor unless prior to the expiration of such sixtieth day, the Contractor has filed a complaint with the Director of the Division of Minority and Women's Business Development pursuant to 5 NYCRR § 142.12, in which event the liquidated damages shall be payable or withheld from the Contractor only in the event of a determination adverse to the Contractor following the complaint process.

SERVICE-DISABLED VETERAN-OWNED BUSINESS ENTERPRISES (SDVOB)

Article 17-B of the New York State Executive Law provides for meaningful participation in public procurement by certified Service-Disabled Veteran-Owned Business Enterprises ("SDVOB"), thereby further integrating such businesses into New York State's economy. The Authority recognizes the need to ensure that certified SDVOBs have opportunities for maximum feasible participation in the performance of Authority contracts. In recognition of the service and sacrifices made by service-disabled veterans and in recognition of their economic activity in doing business in New York State, Contractor is required to foster participation of SDVOBs in the fulfillment of the requirements of the Contract/Agreement.

In accordance with Article 17-b of the Executive Law, including regulations promulgated thereunder, the Authority has established the SDVOB participation goals for this Contract/Agreement, set forth in the "Contract Goals" page of this agreement.

Contractor shall facilitate SDVOB participation for the scopes of work to be performed under this Contract/Agreement, and/or document good faith efforts taken to achieve the goals in a manner prescribed by the Authority in accordance with the Compliance Requirements and Procedures specified herein.

1. SDVOB GOALS

The goals are applicable to the total amount payable under this Contract/Agreement and any changes made to the Contract/Agreement.

1. The Authority establishes SDVOB goals for all applicable contracts/agreements. The SDVOB goals for this Contract/Agreement are located on the "Contract Goals" page of this document and can also be found in the procurement documents pertaining to this Contract/Agreement.
2. For purposes of providing meaningful participation to certified SDVOBs on this Contract/Agreement and in an effort to attain the certified SDVOB goals for this Contract/Agreement, the Contractor should reference the directory of SDVOBs at the following internet address: online.ogs.ny.gov/SDVOB/search
3. Contractor must document "Good Faith Efforts" to provide meaningful participation by SDVOBs as subcontractors or suppliers in the performance of the Contract/Agreement (see clause 4 below).

2. SDVOB UTILIZATION PLANS

A. In accordance with 9 NYCRR § 252.2(i), Bidders/Proposers are required to submit a completed SDVOB Utilization Plan on Form TA-W1022 within 10 business days of letting.

B. The Utilization Plan shall list the certified SDVOBs that the Contractor intends to use to perform work on the Contract/Agreement, a description of the work that the Contractor intends the SDVOB to perform to meet the goals on the Contract/Agreement, the estimated dollar amounts to be paid to a certified SDVOB, or, if not known, an estimate of the percentage of Contract/Agreement work the SDVOB will perform. By signing the Utilization Plan, the Contractor acknowledges that making false representations or providing information that shows a lack of good faith as part of, or in conjunction with, the submission of a Utilization Plan is prohibited by law and may result in penalties including, but not limited to, termination of a

contract for cause, loss of eligibility to submit future bids, and/or withholding of payments. Any modifications or changes to the agreed participation by SDVOBs after the award of the Contract/Agreement and during the term of the Contract/Agreement must be reported on a revised Utilization Plan and submitted to the Authority's Chief Compliance Officer for approval.

C. The Authority will review the submitted SDVOB Utilization Plan and advise the Contractor of the Authority's acceptance or issue a notice of deficiency within 20 business days of receipt.

D. If a notice of deficiency is issued, Contractor agrees that it shall respond to the notice of deficiency, within seven business days of receipt, by submitting to the Authority a written remedy in response to the notice of deficiency. If the written remedy that is submitted is not timely or is found by the Authority to be inadequate, the Authority shall notify the Contractor and direct the Contractor to submit, within five business days of notification by the Authority, a request for a partial or total waiver of SDVOB participation goals on Form TA-W1077 Contractor/Consultant Waiver Request. Failure to file the waiver request form in a timely manner may be grounds for disqualification of the bid or proposal.

E. The Authority may disqualify a Contractor's bid/proposal/letter of interest as being non responsive under the following circumstances:

- (a) If a Contractor fails to submit a SDVOB Utilization Plan;
- (b) If a Contractor fails to submit a written remedy to a notice of deficiency;
- (c) If a Contractor fails to submit a request for waiver; or
- (d) If the Authority determines that the Contractor has failed to document and/or demonstrate good faith efforts.

F. If Contractor is awarded a Contract/Agreement, Contractor certifies that it will follow the submitted SDVOB Utilization Plan for the performance of SDVOBs on the Contract/Agreement in accordance with the prescribed SDVOB compliance requirements and procedures for the Contract/Agreement goals set forth in this agreement.

G. Contractor further agrees that failure to use SDVOBs as agreed in the Utilization Plan shall constitute a material breach of the terms of the Contract/Agreement. Upon the occurrence of such a material breach, the Authority shall be entitled to any remedy provided herein, including but not limited to, a finding of Contractor non-responsibility.

3. SDVOB WAIVER

A. Prior to submission of a request for a partial or total waiver, Contractor shall speak with someone from the Authority's Office of Compliance for guidance.

B. In accordance with 9 NYCRR § 252.2(m), a Contractor that is able to document good faith efforts to meet the goal requirements, as set forth herein, may submit a request for a partial or total waiver on Form TA-W1077, accompanied by supporting documentation. A Contractor may submit the request for waiver at the same time it submits its SDVOB Utilization Plan.

If a request for waiver is submitted with the SDVOB Utilization Plan and is not approved by the Authority at that time, the provisions of clauses 2 (C), (D) & (E) will apply. If the documentation

included with the Contractor's waiver request is complete, the Authority shall evaluate the request and issue a written notice of acceptance or denial within 20 days of receipt.

C. Contractor shall attempt to utilize, in good faith, certified SDVOBs, during the performance of the Contract/Agreement. Requests for a partial or total waiver of established goal requirements may be made to the Authority, at time of bid submission, subsequent to Contract/Agreement award or at any time during the term of the Contract/Agreement, but must be made no later than prior to the submission of a request for final payment on the Contract/Agreement.

D. If the Authority, upon review of the SDVOB Utilization Plan and Monthly SDVOB Form TA-1023 Payments to DBE/MWBE/SDVOBs determines that Contractor is failing or refusing to comply with the contract goals and no waiver has been granted in regards to such non-compliance, the Authority may issue a notice of deficiency to the Contractor.

The Contractor must respond to the notice of deficiency within seven business days of receipt. Such response may include a request for partial or total waiver of the Contract/Agreement SDVOB goals.

Waiver requests shall be sent to the Authority's Office of Compliance at Compliance@thruway.ny.gov.

4. GOOD FAITH EFFORTS

In accordance with 9 NYCRR § 252.2(n), Contractor must document their good faith efforts toward utilizing SDVOBs on the Contract/Agreement. Evidence of required good faith efforts shall include, but not be limited to, the following:

- (1) Copies of solicitations to SDVOBs and any responses thereto.
- (2) Explanation of the specific reasons each SDVOB that responded to Contractor's solicitation was not selected.
- (3) Dates of any pre-bid, pre-award or other meetings attended by Contractor, if any, scheduled by the Authority with certified SDVOBs which the Authority determined were capable of fulfilling the SDVOB goals set in the Contract/Agreement.
- (4) Information describing the specific steps undertaken to reasonably structure the Contract/Agreement scope of work for the purpose of subcontracting with, or obtaining supplies from, certified SDVOBs.
- (5) Other information deemed relevant to the waiver request.

5. MONTHLY SDVOB CONTRACTOR COMPLIANCE REPORT

In accordance with 9 NYCRR § 252.2(q), Contractor is required to report Monthly SDVOB Contractor Compliance to the Authority during the term of the Contract/Agreement for the preceding month's activity, documenting progress made towards achieving the Contract/Agreement SDVOB goals.

This information must be submitted by the Contractor, using Form TA-1023 Payments to DBE/MWBE/SDVOBs available on the Authority's website, reflecting the preceding month's activities. Timely, complete and accurate forms must be submitted to

Compliance@thruway.ny.gov, by the 10th day of each month, with a courtesy copy to Thruway Project Engineer (TPE)/Engineer in Charge (EIC).

6. NON-COMPLIANCE

Where the Authority determines that the Contractor is not in compliance with the requirements specified herein and/or other contract requirements, refuses to comply with such requirements, or if the Contractor is found to have willfully and intentionally failed to comply with the SDVOB participation goals, the Contractor may be found in breach of the contract, which may result in withholding of any mobilization pay item and monthly estimates, a delay in award of the Contract/Agreement, a finding that the Contractor is non-responsible, and/or the Authority may impose other breach of contract damages.

7. BREACH OF CONTRACT AND DAMAGES

In accordance with 9 NYCRR § 252.2(s), any Contractor found to have willfully and intentionally failed to comply with the SDVOB participation goals set forth in the Contract/Agreement, shall be found to have breached the Contract/Agreement and Contractor shall pay damages equivalent to the Authority's expenses for personnel, supplies and overhead related to establishing, monitoring, and reviewing certified Service-Disabled Veteran-Owned Business Enterprise programmatic goals for the specific Contract/Agreement.

Questions regarding compliance with SDVOB participation goals should be directed to the Authority's Office of Compliance.

All forms are available at:

For Contractors: thruway.ny.gov/business/contractors/forms/index.html

For Consultants: thruway.ny.gov/business/consultants/forms/index.html

For Purchasers: thruway.ny.gov/business/consultants/forms/index.html

EQUAL EMPLOYMENT OPPORTUNITY AND REMOVAL OF INSTITUTIONAL POLICIES OR PRACTICES THAT FAIL TO ADDRESS THE HARASSMENT AND DISCRIMINATION OF INDIVIDUALS

Contractor agrees to comply with all Authority Compliance Requirements and Procedures, in accordance with the terms and conditions of Appendix A – Standard Clauses for New York State Thruway Authority Contracts including Clause 4 – Non-Discrimination Requirements and Clause 11 - Equal Employment Opportunities for Minorities and Women.

Equal Employment Opportunities for minority group members and women (“EEO”) and related provisions shall be deemed supplementary to, and not in lieu of, the nondiscrimination provisions required by New York State Executive Law Article 15 (the “Human Rights Law”) and other applicable federal, state, and local laws.

In the performance of this Contract/Agreement, Contractor shall demonstrate compliance with the Work Force Diversity Requirements and Procedures Regarding Equal Employment Opportunities for Minority Group Members and Women, pursuant to 5 NYCRR § 143, Executive Order 177, and all other applicable federal, state and local laws, rules and regulations.

The Contractor will be required to submit its written Policy Statement ensuring “Equal Employment Opportunity and Removal of Institutional Policies or Practices That Fail to Address the Harassment and Discrimination of Individuals,” to the Authority within 10 business days after the letting/bid opening.

During the performance of this contract, the Contractor agrees to comply with the Equal Employment Opportunity (EEO) requirements specified herein.

1. DEFINITIONS – As used in these requirements, the following definitions will apply:

A. “Covered Area” means the geographical area described in the solicitation from which this contract resulted or the geographic area within which this contract will be performed.

B. “Authority” means the New York State Thruway Authority.

C. “Executive Director” means the Executive Director of the New York State Thruway Authority, or his/her duly authorized representative.

D. “Office of Compliance” means the Thruway Authority’s Office of Compliance or his/her duly authorized representative.

E. “Employer Identification Number” means the Federal Social Security Number used on the Employer’s Quarterly Federal Tax Return, U.S. Treasury Department form 941.

F. “Minority” includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (a person of Mexican, Puerto Rican, Dominican, Cuban, Central or South American descent of either Indian or Hispanic origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast, Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification. Identification may be made by any suitable authority in the community such as an educational institution, religious organization, or a state agency).

2. NON-DISCRIMINATION CLAUSE

The Contractor will ensure equal employment opportunity by not discriminating against any applicant for employment because of race, color, religion, sex, national origin, age, disability, or marital status, regarding, (among other things) the following: upgrading, demotion, transfer, recruitment, recruitment advertising, layoff, termination, rates of pay or other forms of compensation and selection for training, including apprenticeship.

3. MINORITY AND WOMEN EMPLOYMENT GOALS

The Contractor shall make a good faith effort to ensure equal employment opportunity by taking the affirmative action’s set forth in paragraph 5A through P of these requirements. The Bidder’s/Proposer’s/Contractor’s/Consultant’s/Engineer’s success in achieving or bettering the goals set forth on the contract goals page, shall be a substantial factor in any determination of

whether the Contractor has complied with its obligation to ensure equal employment opportunity in the performance of this Contract/Agreement. The goals are expressed as percentages of the total hours of employment and training that the Contractor should reasonably be able to give to female or minority employees in a certain covered area. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract/Agreement, and in each trade. These goals were established from materials published by the NYS Department of Economic Development based on appropriate workforce, demographic or other relevant data or labor force developed by the Division of Minority & Women's Business Development utilizing the 1990 Census Data.

4. AFFIRMATIVE ACTION STEPS AND NON-FEDERAL TRAINING REQUIREMENTS

The Contractor shall implement affirmative action steps at least as extensive as the following:

A. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority and female individuals working at such sites or in such facilities.

B. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

C. Maintain a current file of the name, address, and telephone number of each minority and female off-the street applicant and minority or female referral from a union, a recruitment source, or community organization and of the action which was taken with respect to each such individual.

If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union, or if referred, not employed by the Contractor, this shall be documented in writing to the Office of Compliance and noted in the file with the reasons therefore, along with whatever additional actions the Contractor may have taken.

D. Provide immediate written notification to the Office of Compliance when the Contractor has information that the union referral process has impeded the Contractor's efforts to meet its obligation.

E. Develop on-the-job training opportunities and/or participation in training programs which expressly include minorities and women, including upgrading programs and apprenticeships and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the United States Department of Labor, the New York State Department of Labor, or the New York State Thruway Authority and appropriate for utilization on New York State Thruway Authority projects. The Contractor shall provide notice of these programs to the sources compiled under 5B. above. If the Contractor fails to develop or participate in such apprentice or training programs, its failure to meet the goal set forth herein will be presumed to be noncompliance with these requirements.

F. Disseminate the Contractor's equal employment opportunity policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its equal employment opportunity obligations, by including it in any

policy, annual and collective bargaining agreement, by publicizing it in the company newspaper, annual report, and other similar items, by specific review of the policy with all management personnel and with all minority and female at least once a year, and by posting the Contractor's equal employment opportunity policy on bulletin boards accessible to all employees at each location where work under this contract is performed.

G. Review, at least annually, the Contractor's equal employment opportunity policy and affirmative action obligations under this requirement with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decision, including specific review of these items with on-site supervisory personnel such as superintendents, general forepersons, etc., prior to the initiation of work at any job site.

A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

H. Disseminate the Contractor's equal employment opportunity policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to, and discussing the Contractor's equal employment opportunity policy with, other Contractors and subcontractors with whom the Contractor does or anticipates doing business.

I. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female students, and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above describing the openings, screening procedures, and tests to be used in the selection process.

J. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of the Contractor's workforce.

K. 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 regard to race, color, religion, sex, national origin, age, disability, or marital status.

L. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for such opportunities through appropriate training or other similar activities.

M. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the equal employment opportunity policy and the Contractor's obligations under this requirement are being carried out.

N. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

O. Send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representative of the Contractor's commitments under this requirement

and post copies of the notice in conspicuous places available to employees and applicants for employment.

P. Conduct a review, at least annually, of all supervisors' adherence to, and performance under, the Contractor's equal employment opportunity policies and affirmative action obligations.

5. CONTRACTOR/CONSULTANT ASSOCIATIONS

Contractor is encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations. The efforts of a contractor association, joint contractor union, contractor community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling one or more of its obligations under this requirement provided that the Contractor actively participates in the group, makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

6. TRANSFER OF MINORITY OR FEMALE EMPLOYEES

Through implementing the affirmative action's set forth above and the Contractor's other efforts to ensure equal employment opportunity, the Contractor must have made a commitment to employ minorities and women throughout the life of the contract. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be violation of the contract.

7. CREDITING NON-WORKING TRAINING HOURS TOWARD EMPLOYMENT GOALS

In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the United States Department of Labor, the New York State Department of Labor or the New York State Thruway Authority and appropriate for utilization on the New York State Thruway Authority projects.

8. REQUIRED RECORDS

A. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the Contractor's equal employment opportunity policy is being carried out and to keep records. The records shall include the names, address, telephone number, construction trade, union affiliation, if any, employee identification number when assigned, social security number, race, sex, status (e.g. mechanic, apprentice, trainee, helper or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay and locations at which the work was performed for each employee.

Records shall be maintained in an understandable and retrievable form. To the extent that records kept by the Contractor for other purposes satisfy the requirements of this paragraph, the Contractor need not maintain separate records.

B. Contractor shall submit on a monthly basis “Monthly Workforce Utilization Composite” (Form TA-W1017) to the TPE/EIC for approval and submitted electronically upon approval to Compliance@thruway.ny.gov. The report shall reflect a monthly composite of the total cumulative hours of work for the entire project workforce (including all subcontractors) from the start of the contract through the contract ending date. For the purpose of composite reporting, the employment and training hours for females and minorities shall be calculated separately. Female utilization hours (minority and non-minority) shall be counted towards female utilization and minority female utilization hours shall also be counted towards minority utilization hours.

C. All records required by this Section must be retained for a period of six years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the Authority or the Office of Compliance.

9. GOALS NOT TO BE USED TO DISCRIMINATE

The Contractor shall not use the goals or affirmative action requirements to discriminate against any person because of race, color, religion, sex, national origin, age disability, or marital status.

10. AVAILABILITY OF CONTRACTOR’S RECORDS

The Contractor will furnish all information and reports as may be required by the Authority or by rules, regulations and orders incorporated herein by the Authority and will permit access to its books, records and accounts by the Authority’s Office of Compliance for purposes of monitoring and investigating compliance with these requirements and such rules, regulations, orders, procedures and guidelines.

11. ENFORCEMENT

In order to determine whether the Contractor has complied with the requirements, the Authority may proceed by order to show cause, compliance conference, hearing or any other lawful procedure upon due notice in writing to the Contractor. In the event the Authority finds that the Contractor has failed to comply with these requirements, this contract may be canceled, terminated, or suspended in whole or in part or liquidated damages may be imposed in accordance with the procedures authorized in Section 312 of Executive Law 15-A, Section 40 of the Highway Law, provisions of this Contract/Agreement, relevant laws and statutes as deemed appropriate by the Authority, at no cost or liability to the Authority.

In accordance with EO 177 entitled “Prohibiting State Contracts with Entities that Support Discrimination”, provisions of this Contract/Agreement and Section 40 of the Highway Law, the Contractor may be declared ineligible for further New York State government contract or construction contracts, and such other sanctions may be imposed and remedies invoked as deemed appropriate by the Authority by rule, regulation, or order of the Authority, or as otherwise provided by law.

12. CONTRACTOR’S RESPONSIBILITY REGARDING COLLECTIVE BARGAINING AGREEMENT

Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement to refer either minorities or women shall excuse the Contractor’s obligations under these requirements, any rules, regulations, procedures and guidelines promulgated or established pursuant to Executive Order 21.

13. APPLICABILITY TO SUBCONTRACT

As per Section 312 of Executive Law 15-A the Contractor will physically include the document Equal Employment Opportunity Requirements as part of every subcontract or purchase order unless exempted by rules, regulations, or orders of the Director, pursuant to the Executive Order 8, and such requirements shall be binding upon each subcontractor, service provider, or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Authority may direct as a means of enforcing such provisions, including sanctions for

noncompliance; provided, however that in the event the Contractor becomes involved in or is threatened with litigation by a subcontractor or vendor as a result of any provision or direction issued pursuant to these requirements or by the Authority, the Contractor may request the State of New York to enter into such litigation or dispute to protect the interests of the State of New York.

14. EQUAL EMPLOYMENT OPPORTUNITY OFFICER

The Contractor will designate and make known to the Office of Compliance who will have the responsibility for and must be capable of effectively administering and promoting an active Contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

15. COMPLAINTS OF ALLEGED DISCRIMINATION/SEXUAL HARASSMENT

The Contractor will promptly investigate all complaints of alleged discrimination/sexual harassment made to the Contractor in connection with his/her obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination/sexual harassment may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the Contractor will inform every complainant of all of his or her avenues of appeal, including the New York State Division of Human Rights and Equal Employment Opportunity Commission.

The Contractor shall inform the Office of Compliance (within 24 hours) in writing of any formal or informal complaint, incident or any issue of discrimination/sexual harassment. Results of investigation must be submitted to the Office of Compliance within ten (10) days of the complaint.

TRAINING SPECIAL PROVISIONS

TA-1041 – Training Report

TA-1046 – Monthly Training Report

This work shall consist of the employment and meaningful and effective training of minority and women in New York State Thruway Authority approved training programs leading to their qualification as journeyworkers in the skilled trades required in highway construction. This Training/Special Provision supplements the Equal Employment Opportunity requirements included elsewhere in this Proposal entitled “Equal Employment Opportunity (EEO) Requirements”. Each of the foregoing prescribed specific percentage goals for utilization of minorities and women in the performance of work for the geographic location of the contract.

GENERAL: The primary objective of this Training/Special Provision is to provide training opportunities to minorities and women in construction trades for two purposes:

1. To maintain a pool of qualified minorities and women to replace those journeyworkers who, in the natural course of events, will leave the workforce; and
2. To provide minorities and women as indentured apprentices or trainees in those geographic areas where shortages in minorities and women journeyworkers are recognized because of the Contractor's inability to meet the EEO goals set forth in this contract.

Each contract which contains this Training/Special Provision shall require the training of at least one minority or woman indentured apprentice or trainee. Such individual shall be approved by the Authority. Other than this initial training obligation, to be undertaken and provided by the Contractor, no additional training obligations will exist under this Training/Special Provision unless the goals for minority and women employment and training in the skilled workforce are not continuously met on the contract and generally distributed amongst the trades. In the five counties of New York City, the goals specified for each trade are applicable and must be met. Whenever the goals are not met, additional minorities and/or women indentured apprentices and/or trainees will be assigned or approved in numbers necessary to meet the goals. Data necessary to determine if goals are being met will be provided on Contractor and Subcontractor Employment Utilization Reports (Form TA-1017-9). The data will be verified by the visual observance of the Project Engineer, or designated project inspectors, and hours of employment reported on Contractor or Subcontractor certified weekly payrolls.

The number of minorities and women indentured apprentices and trainees required to be trained under this item shall not exceed 12% of the total journeyworker workforce on the contract, i.e. no more than 1 in 8 of the skilled workforce is required to be a minority or woman indentured apprentice or trainee. This limitation applies regardless of minority and women representation in the trades. However, this limit on required training in no way absolves the Contractor of the responsibility to comply with the EEO requirements.

PRE-AWARD MEETING: Before the Contractor will be allowed to begin work, the Contractor shall attend a Pre-award Meeting and shall submit for Authority use and acceptance, a Workforce and Training Utilization Schedule (Form TA-1024) which shall be correlated to the Contractor's contract work schedule. The Schedule shall include at least the following information:

1. A work schedule for the entire contract,
2. An estimate of the work force required to conform to the work schedule on a monthly basis including an estimate of the workforce in each trade and/or work classification projected to be used including Subcontractors,
3. Separate estimates of the number of minorities and women indentured apprentices or trainees that would be required in each skilled trade to meet the contract EEO employment goals for that trade assuming no minorities or women journeyworkers in the workforce,
4. The proposed training programs to be used and the starting dates for training in each trade and/or work classification,
5. An estimate of the availability of minorities and women journeyworkers in numbers sufficient to meet the EEO contract goals, and

6. Any proposal by the Contractor to use trainees or indentured apprentices to make up for anticipated EEO goal shortfalls. Such proposals shall include the name and craft of any individual proposed by the Contractor as the required trainee or indentured apprentice. In the case of an indentured apprentice, evidence of indentureship and registration of the approved apprenticeship program must be included.

No contract work may be undertaken until the Authority has accepted the Workforce and Training Utilization Schedule. The Contractor shall submit a revised Workforce and Training Utilization Schedule at such times as major changes in the contract work schedule occur which substantially affect the previously submitted schedule.

RECRUITMENT: Although the training requirements of this Training/Special Provision are not intended, and shall not be used to discriminate against any applicant for training, whether a member of a protected class or not, it is recognized that non-minority males have traditionally been and continue to be trained, either formally or on-the-job in an informal manner, for work in the trades utilized in construction work. Therefore, until such time that representative numbers of minorities and women complete training and their utilization as journeyworkers is demonstrated to the extent of the participation goals as set forth in the Authority's construction contract, training required under this Training/Special Provisions will be primarily limited to minorities and women.

Thus, the Contractor shall demonstrate compliance with the intent of this Training/Special Provision by affording the Authority the opportunity to:

1. First, approve the use of a minority or woman indentured apprentice known to the Contractor through an existing Joint Apprenticeship Training program, or
2. Second, provide a partially trained minority or woman trainee who is currently enrolled in a New York State Department of Labor approved training program, or
3. Third, work cooperatively with the Contractor in recruitment of new minorities or women trainees, when needed.

In conformance with the foregoing, the Authority's Form TA-1018 (Request for Personnel), should be submitted to the TPE/EIC for submission to the Authority's Office of Compliance. The Contractor shall allow reasonable time for the Authority's Office of Compliance to ensure on-the-job orientation for approved apprentices or assigned trainees within their first month of employment.

WORK HISTORY: No individual shall be employed as a trainee in any trade and/or work classification in which such person has successfully completed a training course providing journeyworker status in the same trade or work classification, or in which such person has been gainfully employed as a journeyworker by virtue of informal on-the-job training. Detection of individuals in the above categories may be accomplished by including appropriate questions on employee application forms, inquiries to the Authority's Office of Compliance, checking personal references, or by other suitable means. Regardless of the method used, the Contractor shall document the finding for each indentured apprentice or trainee provided training under this requirement. A copy of the finding shall be given to the Authority's Office of Compliance. In the case of indentured apprentices, evidence of indentureship in a registered approved apprenticeship program shall also be submitted.

SUBCONTRACTING: In the event the Contractor subcontracts a portion of the contract work, the Contractor shall ensure the requirements of this Training/Special Provision are physically incorporated in such subcontracts to ensure the workforce utilization by the Subcontractor meets the goals for minorities and women employment and training, either independently or in combination with the prime Contractor's workforce. The Contractor must determine the hours of training, if any, and in which trade or work classification, minorities or women indentured apprentices or trainees are to be trained by the Subcontractor(s). However, the Contractor shall retain the primary responsibility for meeting the training requirements of this Training/Special Provision. Subcontractors are herewith advised that disregard of these requirements may result in the Authority either rescinding approval for work on this contract or disapproving their use on subsequent Authority contracts.

TRAINING PROGRAMS: The minimum length, type of training, and rate of pay for the trade or the work classification of the trade will be specified in the training program approved or sanctioned by the New York State Department of Labor.

Where training is to be provided under this Training/Special Provision, the Contractor shall obtain acceptance and/or approval of the training program to be used, and the starting time for training, prior to commencing training. The Contractor shall provide on-the-job training directed toward developing journeyworkers in the trade, or work classification(s) of the trade involved. To the extent the work involved on the contract permits, such training should include all phases and facets of a trade, or work classification of a trade, to satisfy usual construction industry requirements for continued or future employment therein.

It is the intent of this Training/Special Provision that training will be provided in construction trades rather than clerical type positions. Training may be permitted, in unique circumstances, in lower level management positions such as office engineers, where the training is oriented toward construction related activities. Some off-site training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of an overall training program. Both off-site and lower level management training are subject to the Authority's approval.

TRAINEE WAGES: An employee on any New York State Public Works Contract must be paid the full journeyworker prevailing wage unless such employee is individually registered in an approved and registered New York State Department of Labor Apprenticeship Program. It is the responsibility of the Contractor to ascertain the status of any employee utilized to satisfy the trainee requirements under this contract, and to ensure that all New York State Department of Labor apprenticeship requirements are met.

Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyworker wage rate on the wage determination which provides for less than full benefits for apprentices.

DURATION OF TRAINING: Once an indentured apprentice is approved or a trainee is assigned to the contract under the Training/Special Provision, that individual shall be trained in the designed trade throughout the duration of the contract whenever such trade is in use on the

contract until the trainee or apprentice has completed the approved training program. Where training is provided under a multiphase apprenticeship or training program, it is expected that training will be provided continually through all phases to the extent that opportunities for such training exist in the work under contract. Upon satisfactory completion of a phase of training under a multiphase training program, if further appropriate and required training is not available and work in the work classification of the completed phase is available, the minority or woman indentured apprentice or trainee shall continue employment, and be compensated at the prevailing journeyworker wage rate for such work. Hours of employment as a journeyworker described above will not be credited toward training hours required by the approved training or apprenticeship program.

If an indentured apprentice or trainee is terminated before completion of the contract for any reason other than seasonal lay-off or completion of work in that trade, the Contractor shall hold a counseling session with the Authority's Chief Compliance Officer and the individual to explain the reasons for termination. Documentation that the counseling session was held and the reasons for termination shall be given to the Authority's Chief Compliance Officer.

REQUIRED RECORDS: The Contractor shall provide each minority or woman trained under this provision with a certification showing the type and length of training satisfactorily completed. In addition, the Contractor shall keep records on the job site indicating the nature and hours of training provided to each trainee or indentured apprentice and furnish weekly reports documenting performance under this Training/Special Provision to the Project Engineer. No measurement will be made of training provided to indentured apprentices or trainees for whom no work history has been provided to the Project Engineer. In addition, no measurement will be made of training provided to apprentices for whom no evidence of indentureship in a registered apprenticeship program has been provided to the Project Engineer.

NO PAYMENT FOR TRAINING: No payment will be made for the training required of the Contractor under this Training/Special Provision. The required training is a labor cost which is included in the lump sum bid by the Contractor for the items of work comprising the contract.

(1) Journeyworker means a person who is capable of performing all the duties within a trade or a given work classification of a trade.

WORKFORCE UTILIZATION/GROSS WAGES REPORTING

In accordance with the requirements pursuant to Executive Order (EO) 162, Contractors must report employee workforce utilization on a monthly basis and gross wages on a quarterly basis for its company and all subcontractors in accordance with EO 162, as follows:

A. EO 162 (Monthly/Quarterly) Workforce Utilization/Gross Wages Reporting

Construction Contractors/Subcontractors are required to submit (Monthly) Workforce Utilization and (Quarterly) Workforce Utilization/Gross Wages Reports for their firm and all subcontractors.

(Monthly) Workforce Utilization/ (Quarterly) Gross Wages Reports are required to be electronically submitted to WorkforceUtilizationReportConstruction@thruway.ny.gov.

(Monthly) Workforce Utilization report for the preceding month must be submitted by the 10th of each month, for the Contractor and all subcontractors.

The (Monthly) EO 162 Workforce Utilization/Gross Wages Reporting are located on the Thruway website @ thruway.ny.gov/business/dmwbe/eo-162-monthly-construction.xls

(Quarterly) - Workforce Utilization, including Gross Wages Reports for quarterly reporting must be submitted by 10th of April, July, October and January, for the Contractor and all subcontractors.

The (Quarterly) EO 162 Workforce Utilization/Gross Wages Reporting are located on the Thruway website @ thruway.ny.gov/business/dmwbe/eo-162-quarterly-construction.xls

B. Form TA-1017 Monthly Workforce Utilization Composite Report

Form TA-1017 (Monthly) Workforce Utilization Composite report must be completed for each calendar month by the Contractor reflecting the cumulative total work hours of employment to date for the entire workforce.

Form TA-1017 (Monthly) - Workforce Utilization Composite Report, must be approved by the TPE/EIC and electronically submitted prior to the 10th of the month to Compliance@thruway.ny.gov.

Form TA-1017 (Monthly) - Workforce Utilization Composite Report is located on the Thruway website @ thruway.ny.gov/business/dmwbe/ta-w1017.xls

NONDISCRIMINATION

The Contractor shall comply with the provisions of the Human Rights Law, and all other state and federal statutory and constitutional non-discrimination provisions. The Contractor and its subcontractors shall not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex, national origin, sexual orientation, military status, age, disability, predisposing genetic characteristic, marital status or domestic violence victim status, and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest.

Questions regarding compliance with Workforce Utilization/Gross Wages Reporting should be directed to the Authority's Office of Compliance.

MOBILIZATION AND PAYMENT OF ESTIMATES/INVOICES

Processing of mobilization, estimates and/or invoices is contingent upon Contractor demonstration and/or documentation of compliance with **all** of the Authority's Disadvantaged Business/Equal Employment Opportunity/Minority/Women and Service-Disabled Veteran Owned-Business Enterprise Contract/Agreement requirements and provisions.

Forms listed herein may be revised, updated, at the Authority's sole discretion and are required during the covered period, under the reporting schedules established by the Authority.

DBE/EEO/MWBE/SDVOB forms, requirements and reporting schedules will be discussed during the pre-award meeting or by contacting the Authority's Office of Compliance.

REPORTING AND SUBMISSION SCHEDULES

Contractors are required to submit the following forms or reports by the 10th of each month, for the preceding month's activities to: Compliance@thruway.ny.gov

TA-W1017 Monthly Workforce Utilization Composite
TA-W1023 Payments to D/M/WBE Subcontracting Firms
TA-1024 Workforce and Training Utilization Schedule
TA-W1046-9 Weekly Training Progress Report

The above forms or reports must accurately reflect the information reported on the following forms:

TA-W1022-9 Utilization Plan
TA-W1024-9 Workforce and Training Utilization Schedule
TA-W1041-9 Training Report
TA-W1064-9 Construction Contractors Annual EEO Report

Contractors are also required to submit the following forms or reports by the 10th of each month, for the preceding month's activities to:

WorkforceUtilizationReportConstruction@thruway.ny.gov

EO 162 - Monthly Workforce Utilization/Gross Wage Report
EO 162 - Workforce Utilization/Quarterly Gross Wage Report

All Authority Forms are available at:

<http://www.thruway.ny.gov/business/contractors/forms/index.html>

Timely, complete and accurate reports shall be submitted as required and/or upon request.

**STATE
WAGE RATE
INFORMATION**

WAGE RATES

The New York State Thruway Authority does not represent or warrant that the accompanying schedule of wages with the classification of workmen, mechanics and laborers, as required by Section 220 of the Labor Law, is complete and it reserves the right to revise such schedule when required.

In the event that revisions are made before the letting date, an amendment will be issued by the Department of purchasers of plans. In the event that the current wage rate schedule should expire before the contract for this project becomes effective the said wage rate schedule will be recertified and the Contractor will be bound by such revised schedule as recertified.

Labor classifications not appearing on this rate sheet can be used only with the consent of the Chief Engineer of the Authority and then the rate to be paid will be given by the Chief Engineer of the Authority after consulting with the State Department of Labor.

All requests for minimum wage rates for additional occupations shall be directed through the Chief Engineer, Thruway Authority.

By legislation effective August 9, 1975, if the prevailing rate of wages or the prevailing practices for supplements as determined by the State Labor Department changes after the contract is let, the Thruway Authority shall request of the State Labor Department a redetermination of the schedules of wages and supplements and such revised wage rates and supplements shall be annexed to and form a part of the contract for the work. The prevailing wage rates and supplemental benefits to be paid are those in effect at the time the work is being performed. The bidder shall take into account in his bid prices all changes in wage rates and supplements that may be forthcoming during the time the contract is in force.

The bidder shall take into account in his bid prices all changes in wage rates and supplements that may be forthcoming during the time the contract is in force.

Pursuant to Section 220-A of the New York State Labor law, the prime Contractor must provide each approved subcontractor with a copy of the schedule of wages and any supplements as specified in this Contract.

The prime Contractor must immediately obtain from each approved subcontractor a certification (TA-44105) of their receipt of, and agreement to pay the applicable prevailing wages as specified in this contract. The prime Contractor shall retain all Subcontractor certifications and provide these certifications to the Authority prior to the processing of the final payment.

The prime Contractor must submit an affidavit (TA-44115) verifying the proper payment of wages to its own employees prior to the processing of the final payment. All completed certifications and affidavits must be originals and be properly signed and notarized.

SPECIAL NOTICE TO BIDDERS IN RELATION TO OVERTIME DISPENSATION

All bidders, in submitting their bids, should base their bids and work progression on the assumption that Overtime Dispensation pursuant to Article 8 of the New York State Labor Law, for any workmen, laborers and mechanics to work more than 8 hours in any one calendar day or more than five days in any one week will not be granted for any operation for the contract duration. Subsequent to award, where the contract documents have imposed specific scheduling and/or phasing requirements or where it is determined by the Authority to be in the best interest of the public, the Authority may process, for approval by the New York State Department of Labor, requests for Overtime Dispensation on certain specific operations and, in the event approval is granted, there shall be no adjustments therefore in any bid prices.

SPECIAL NOTE
STATE PREVAILING WAGE RATES

The Contractor shall ensure that workers are paid the appropriate wages and supplemental (fringe) benefits. Throughout the contract, the Contractor shall obtain and pay workers in accordance with periodic wage rate schedule updates from the NYS Department of Labor (NYSDOL). Wage rate amendments and supplements are available on the NYSDOL web site at <https://dol.ny.gov/bureau-public-work-and-prevailing-wage-enforcement>. All changes or clarification of labor classification(s) and applicability of prevailing wage rates shall be obtained in writing from the Office of the Director, NYSDOL Bureau of Public Work.

The NYSDOL prevailing wage rate schedule for this contract has been determined and is available on the internet. The prevailing wage rate schedule is accessed by visiting the NYSDOL web site, navigating to the appropriate web page, and entering the Prevailing Rate Case No. (PRC#). The PRC# is provided on NYSDOL Form PW-200 included in this contract Proposal.

A copy of the project specific prevailing wage rate schedule will be provided to the successful bidder upon award of the contract. Upon written request, the schedule will be provided by the Thruway Authority to prospective bidders without internet access.

The Thruway Authority is providing information regarding the new Public Work Contractor and Subcontractor Registry requirement recently enacted by New York State.

Starting December 30, 2024, all contractors and subcontractors submitting bids or performing construction work on public work projects or private projects covered by [Article 8 of the Labor Law](#) are required to register with the New York State Department of Labor (NYSDOL) under [Labor Law Section 220-i](#).

Private projects subject to Article 8 of the Labor Law include those covered by Labor Law Sections 224-a (public subsidy funded projects), 224-d (renewable energy systems), 224-e (broadband projects), 224-f (climate risk-related and energy transition projects and roadway excavations.)

The law defines a “contractor” as any entity entering into a contract to perform construction, demolition, reconstruction, excavation, rehabilitation, repair, installation, renovation, alteration or custom fabrication. The law defines “subcontractor” as any entity subcontracting with a contractor to perform construction, demolition, reconstruction, excavation, rehabilitation, repair, installation, renovation, alteration or custom fabrication, which is subject to Article 8 of the Labor Law. Contractors are responsible for verifying that any subcontractors they work with are registered.

Contractors need to register before submitting any new bids or commencing new work on a covered project on or after December 30, 2024. Subcontractors also need to register before commencing new work on a covered project on or after December 30, 2024. The Thruway Authority encourages all contractors and subcontractors to register as soon as possible and obtain a Certificate of Registration to avoid negatively impacting a bidding period or project schedule.

Information required to register from the New York State Department of Labor's website for this process can be found here: <https://dol.ny.gov/contractor-and-subcontractor-landing>. For any further questions you can also contact the Bureau of Public Work and Prevailing Wage at 518-457-5589.



Kathy Hochul, Governor

Roberta Reardon, Commissioner

NYS Thruway Authority
John McCool, Construction Specialist 1
200 Southern Blvd.
Albany NY 12209

Schedule Year 2025 through 2026
Date Requested 01/28/2026
PRC# 2026001877

Location MP 304.20
Project ID# D215090
Project Type Weedsport Maintenance - Construct Municipal Sewer Connection on I-90

PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

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

The schedule is effective from July 2025 through June 2026. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website www.labor.ny.gov. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

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

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

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

NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: _____ Date Cancelled: _____

Name & Title of Representative: _____

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

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

Introduction

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

Contractor Registry

Effective December 30, 2024 all contractors and subcontractors submitting bids or performing construction work on public work projects, or private projects covered by Article 8 of the Labor Law, are required to register with the New York State Department of Labor (NYSDOL) under Labor Law Section 220-i. To register, contractors and subcontractors must submit an application through NYSDOL's Contractor Registry portal which is available through the agency's Management System for Protecting Worker Rights (MPWR) <https://mpwr-public.labor.ny.gov/en/login>.

For additional information, please visit [online](#).

Responsibilities of the Department of Jurisdiction

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

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

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

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

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

Hours

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

Wages and Supplements

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

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

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

www.labor.ny.gov.

Payrolls and Payroll Records

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

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

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

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

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

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

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

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

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

Withholding of Payments

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

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

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

Summary of Notice Posting Requirements

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

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

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

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

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

Apprentices

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

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

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

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

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

Interest and Penalties

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

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

Debarment

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

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

Criminal Sanctions

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

Discrimination

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

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

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

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

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

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

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

Workers' Compensation

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

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

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

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

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

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

Unemployment Insurance

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



Kathy Hochul, Governor

Roberta Reardon, Commissioner

NYS Thruway Authority

John McCool, Construction Specialist 1
200 Southern Blvd.
Albany NY 12209

Schedule Year 2025 through 2026
Date Requested 01/28/2026
PRC# 2026001877

Location MP 304.20
Project ID# D215090
Project Type Weedsport Maintenance - Construct Municipal Sewer Connection on I-90

Notice of Contract Award

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

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

Contractor Information

All information must be supplied

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

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

Social Security Numbers on Certified Payrolls:

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

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

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

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

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

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

Effective June 23, 2020

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

(12.20)

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

Budget Policy & Reporting Manual

B-610

Public Work Enforcement Fund

effective date December 7, 2005

1. Purpose and Scope:

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

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

2. Background and Statutory References:

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

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

3. Procedures and Agency Responsibilities:

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

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

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

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

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

Reports should contain the following information:

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

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

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

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

Required Notice under Article 25-B of the Labor Law

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

The law says that you are an employee unless:

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

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

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

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

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

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

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

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

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

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

Employer Name:

IA 999 (09/16)

WE ARE YOUR DOLDepartment
of LaborNew York State Department of Labor
Bureau of Public Work

Attention Employees

THIS IS A: **PUBLIC WORK PROJECT**

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

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

Chapter 629 of the Labor Laws of 2007:

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



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

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

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

Contractor Name: _____

Project Location: _____

Requirements for OSHA 10 Compliance

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

The Bureau will enforce the statute as follows:

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

Proof of completion may include but is not limited to:

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

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

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

Introduction to the Prevailing Rate Schedule

Information About Prevailing Rate Schedule

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

Classification

It is the duty of the Commissioner of Labor to make the proper classification of workers taking into account whether the work is heavy and highway, building, sewer and water, tunnel work, or residential, and to make a determination of wages and supplements to be paid or provided. It is the responsibility of the public work contractor to use the proper rate. If there is a question on the proper classification to be used, please call the district office located nearest the project. District office locations and phone numbers are listed below. Prevailing Wage Schedules are issued separately for "General Construction Projects" and "Residential Construction Projects" on a county-by-county basis.

General Construction Rates apply to projects such as: Buildings, Heavy & Highway, and Tunnel and Water & Sewer rates. Residential Construction Rates generally apply to construction, reconstruction, repair, alteration, or demolition of one family, two family, row housing, or rental type units intended for residential use. Some rates listed in the Residential Construction Rate Schedule have a very limited applicability listed along with the rate. Rates for occupations or locations not shown on the residential schedule must be obtained from the General Construction Rate Schedule. Please contact the local Bureau of Public Work office before using Residential Rate Schedules, to ensure that the project meets the required criteria.

*Contractor Registry (LL 220-I): Effective December 30th, 2024

Labor Law Section 220-i(6) prohibits contractors from bidding on public work and prohibits both contractors and subcontractors from commencing work on private and public projects subject to prevailing wage requirements. This section requires contractors to submit their Certificate of Registration with their bid materials. Each Certificate of Registration will have a unique registration number. Failure to provide proof of registration, as required by Labor Law Section 220-i, as a minimum qualification will result in the bidder being deemed non-responsive. There is a public database of registered contractors and subcontractors available online at data.ny.gov to confirm registration validity. For additional information on how to register and the requirements, visit <https://dol.ny.gov/public-work-contractor-and-subcontractor-registry-landing>

*Electronic Certified Payroll (LL 220-J): Effective December 31st, 2025

Effective December 31, 2025, all contractors and subcontractors who perform public work, or covered private work subject to the prevailing wage, will be required to submit certified payrolls electronically to the Bureau of Public Work and Prevailing Wage Enforcement. Additional information about the electronic certified payroll submission system will be made available on the Department's Website at <https://dol.ny.gov/Electronic-Payroll>

Payrolls and Payroll Records

Every contractor and subcontractor MUST keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. Payrolls must be maintained for at least three (3) years from the projects date of completion. Additionally, as per Article 6 of the Labor Law, contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemporaneous, true, and accurate payroll records.

At a minimum, payrolls must show the following information for each person employed on a public work project: Name; Address, Last 4 Digits of Social Security number, Classification(s) in which the worker was employed, Hourly wage rate(s) paid, Supplements paid or provided, and Daily and weekly number of hours worked in each classification.

Payroll records and transcripts are required to be kept on site during all the time that work under that contract is being performed.

NOTE: For more detailed information regarding Article 9 prevailing wage contracts, please refer to "General Provisions of Laws Covering Workers on Article 9 Public Work Building Service Contracts".

If you have any questions concerning the attached schedule or would like additional information, please write to:

New York State Department of Labor
Bureau of Public Work
State Office Campus, Bldg. 12
Albany, NY 12240

OR

Contact the nearest BUREAU of PUBLIC WORK District Office

District Office Locations:	Telephone #	FAX #
Bureau of Public Work - Albany	518-457-2744	518-485-0240
Bureau of Public Work - Binghamton	607-721-8005	607-721-8004

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

Paid Holidays

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

Overtime

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

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

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

Supplemental Benefits

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

Effective Dates

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. The rate listed is valid until the next effective rate change or until the new annual determination which takes effect on July 1 of each year.

All contractors and subcontractors are required to pay the current prevailing rates of wages and supplements. If you have any questions please contact the Bureau of Public Work or visit the New York State Department of Labor website (www.labor.ny.gov) for current wage rate information.

Shift Work

If the timeline of the contract requires shift work be performed to meet deadlines, the BPWE will enforce the shift work rate as the required rate on the project whether or not shift work is specifically addressed in the contract.

Paid Prenatal Leave

Every employer shall be required to provide to its employees twenty hours of paid prenatal personal leave during any fifty-two week calendar period. Paid prenatal personal leave shall mean leave taken for the health care services received by an employee during their pregnancy or related to such pregnancy, including physical examinations, medical procedures, monitoring and testing, and discussions with a healthcare provider related to the pregnancy. Paid prenatal personal leave may be taken in hourly increments. Benefits for paid prenatal personal leave shall be paid in hourly installments. Employees shall receive compensation at the employee's regular rate of pay, or the applicable minimum wage established by the labor law, whichever is greater, for the use of Paid Prenatal leave.

Apprentice Training Ratios

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

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

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

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

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

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

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

**AGREEMENT,
FAITHFUL
PERFORMANCE
BOND,
AND
LABOR AND
MATERIAL
BOND**

200

CONTRACT NO:

COUNTY:

**NEW YORK STATE
THRUWAY AUTHORITY**

A G R E E M E N T

NEW YORK STATE THRUWAY AUTHORITY

AGREEMENT

CONTRACT NO:

This **AGREEMENT**, entered into this day of _____, by the **NEW YORK STATE THRUWAY AUTHORITY** (hereinafter referred to as the "**AUTHORITY**") having its principal office at 200 Southern Blvd. (P. O. Box 189, Albany, NY 12201) in the County of Albany and State of New York and hereinafter called the "**CONTRACTOR**",

- a corporation organized and existing under the laws of the State of _____
- a partnership, consisting of _____
- an individual conducting business as _____

the location of whose principal office is _____

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

ARTICLE 1. WORK TO BE DONE.

The Contractor shall (a) furnish all the materials, appliances, tools and labor of every kind required, and construct and complete in the most substantial and skillful manner, the construction, improvement or reconstruction of the project on or before the completion date of the as further described in ARTICLE 4, and as generally identified and shown on the plans entitled:

in accordance with the "Standard Specifications" of the New York State Department of Transportation, which contain the information for bidders; form of proposal, agreement, and bonds; general specifications and conditions or contract; materials of construction; and payment items; and (b) do everything required by the Contract (Contract Documents) as defined herein.

The Contractor agrees that its proposal contained herein is based upon performing all the work of the Contract in accordance with a schedule that will result in the completion of the total works by the Date of Completion of the Contract and all intermediate stage and phase completion requirements of the contract, while adhering to all restrictions set forth in the Schedule and Suspension of Work, the Thruway Traffic Plan, and the General and Special Notes, and that the work will be performed at the unit bid prices, as shown on the contract documents and as detailed in the specifications and notes, utilizing the Labor Force, Qualified Disadvantaged, Women Owned and Minority Owned Subcontractor Entrepreneurs and Methods and Materials of Construction as described in the Contract Documents and any incorporated Addenda thereto, and conduct its operations in accordance with the Vehicle and Traffic Law, the Rules and Regulations of the NYS Thruway Authority, and the Thruway Operating Rules and General and Special Notes that are part of this proposal. The Contractor further agrees its proposal is not based upon the assumption that any specifications, traffic restrictions, scheduling or phasing/staging requirements will be waived, an extension of Contract Completion Date will be granted, a labor dispensation will be granted, substitution of non-approved products, alternatives or claimed functional equivalents for Specified Construction Materials and Methods will be allowed, or any Value Engineering Proposals will be entertained and approved by the New York State Thruway Authority, and any requests for a substitution, equivalent or alternate, which it proposes, will be accompanied by an agreed price analysis establishing an applicable credit or illustrating cost equal to or greater than the bid amount.

ARTICLE 2. DOCUMENTS FORMING THE CONTRACT.

The Contract (and Contract Documents) shall be deemed to include the advertisement for proposals; the contractor's proposal; the Schedule for Participation By Disadvantaged Business Enterprise Participation goals; the agreement; the "Standard Specifications" including all addenda thereto referred to above; the plans; any addenda and/or amendments to specifications if the same are issued prior to date of receipt of proposal and all provisions required by law to be inserted in the contract whether actually inserted or not. Appendix A, standard clauses for all N.Y State contracts, is attached hereto and is hereby made a part of this agreement as if set forth fully herein.

ARTICLE 3. EXAMINATION OF DOCUMENTS AND SITE.

The Contractor agrees that before making its proposal it carefully examined the contract documents, together with the site of the proposed work, as well as its surrounding territory, and is informed regarding all of the conditions affecting the work to be done and labor and materials to be furnished for the completion of this contract, including the existence of poles, wires, pipes, and other facilities and structures of municipal and other public service corporations on, over or under the site, except latent conditions that meet the requirements of §104-04 and §109-05, and that its information was secured by personal investigation and research.

ARTICLE 4. DATE OF COMPLETION.

The Contractor further agrees that it will begin the work herein embraced within ten days of the effective date hereof, unless the consent of the Authority, in writing, is given to begin at a later date, and that it will prosecute the same so that it shall be entirely completed and performed on or before the completion date shown in Article 1.

No extension beyond the date of completion fixed by the terms of this contract shall be effective unless in writing signed by the Authority. Such extension shall be for such time and upon such terms and conditions as shall be fixed by the Authority, which may include the assessment of liquidated damages and a charge for engineering and inspection expenses actually incurred upon the work, including engineering and inspection expenses incurred upon the work by railroad companies on contracts for grade crossing elimination. Notice of application for such extension shall be filed with the Chief Engineer, Department of Engineering of the Authority at least fifteen days prior to the date of completion fixed by the terms of this agreement.

ARTICLE 5. ALTERATIONS AND OMISSIONS.

The said work shall be performed in accordance with the true intent and meaning of the contract documents without any further expense of any nature whatsoever to the Authority other than the consideration named in this agreement.

The Authority reserves the right at any time during the progress of the work, to alter the plans or omit any portion of the work as it may deem reasonably necessary for the public interest; making allowances for additions and deductions with compensation made in accordance with the Standard Specifications, for this work without constituting grounds for any claim by the contractor for allowance for damages or for loss of anticipated profits, or for any variations between the approximate quantities and the quantities of the work as done.

ARTICLE 6. NO COLLUSION OR FRAUD.

The Contractor hereby agrees that the only person or persons interested as principal or principals in the bid or proposal submitted by the Contractor for this contract are named therein, and that no person other than those mentioned therein has any interest in the above-mentioned proposal or in securing of the award, and that this contract has been secured without any connection with any person or persons other than those named, and that the proposal is in all respects fair and was prepared and the contract was secured without collusion or fraud and that neither any officer nor employee of the New York State Thruway Authority or the State Department of Transportation or either of them has or shall have a financial interest in the performance of the contract or in the supplies, work or business to which it relates, or in any portion of the profits thereof. (See also Section 139-a and 139-b of the State Finance Law referred to in the Standard Specifications, which are made a part of this contract.)

ARTICLE 7. CONTRACT PAYMENTS.

As the work progresses in accordance with the contract and in a manner that is satisfactory to the Authority, the Authority hereby agrees to make payments to the Contractor therefore, based upon the proposal attached hereto and made a part hereof, as follows: The Authority shall, once in each month and on such days as it may fix, make an estimate of the quantity of work done and of material which has actually been put in place in accordance with the terms and conditions of the contract, during the preceding month, and compute the value thereof and pay to the Contractor the moneys due in accordance with Public Authorities Law Section 2880, as detailed in 21 NYCRR Part 109 (Prompt Payment). No monthly estimate shall be rendered unless the Contractor has provided acceptable documentation with regard to actions taken to comply with the M/WBE goals of the contract (see also §109-06 Contract Payments) and the value of the work done equals 5% of the contract amount or \$1,000, whichever is the lesser. Semi-monthly estimates may be rendered provided (a) the value of the work performed in two successive weeks is more than \$100,000 or (b) the Chairman of

the Authority deems it to be for the best interest of the Authority to do so.

Contractor understands and agrees that payments will only be rendered electronically unless payment by paper check is expressly authorized by the Authority, in its sole discretion, due to extenuating circumstances. Contractor shall comply with the Authority's procedures to authorize electronic payments. Authorization forms are available at <http://www.thruway.ny.gov/business/purchasing/epayments/index.html>, by e-mail at suppliermgmt@thruway.ny.gov, or by telephone at (518) 436-2859. Contractor acknowledges that it will not receive payment of any estimates submitted under this Agreement if it does not comply with the Authority's electronic payment procedures, except where the Authority has expressly authorized payment by paper check as set forth above.

ARTICLE 8. PAYMENT DUE TO CONTRACTOR'S NON-COMPLIANCE.

It is further agreed that so long as any lawful or proper direction concerning the work or material given by the Chief Engineer, Department of Engineering of the New York State Thruway Authority, or his/her representative, shall remain uncomplied with, the Contractor shall not be entitled to have any estimate made for the purpose of payment, nor shall any estimate be rendered on account of work done or material furnished until such lawful or proper direction aforesaid has been fully and satisfactorily complied with.

ARTICLE 9. FINAL ACCEPTANCE OF WORK.

When in the opinion of the Thruway Division Director, a Contractor has fully performed the work under the contract, the Thruway Division Director shall recommend to the Chief Engineer, Department of Engineering of the New York State Thruway Authority, the acceptance of the work so completed. If the Chief Engineer, Department of Engineering accepts the recommendation of the Thruway Division Director, he/she shall thereupon by letter notify the Contractor of such acceptance. Copies of such acceptance shall be sent to other interested parties. Prior to the final acceptance of the work by the Chief Engineer, Department of Engineering of the New York State Thruway Authority or a designee, the contract work may be inspected, accepted and approved by other agencies and/or municipalities who will have jurisdiction of the work after final acceptance.

Final acceptance shall be final and conclusive except for defects not readily ascertainable by the New York State Thruway Authority, actual or constructive, fraud, gross mistakes amounting to fraud or other errors which the Contractor knew or should have known about as well as the New York State Thruway Authority's rights under any warranty or guarantee. Final acceptance may be revoked by the New York State Thruway Authority at any time prior to the issuance of the final check, upon the New York State Thruway Authority's discovery of such defects, mistakes, fraud or errors in the work.

ARTICLE 10. FINAL PAYMENT.

After the final acceptance of the work, the Engineer shall prepare a final agreement of the work performed and the materials placed and shall compute the value of such work and materials under and according to the terms of the contract.

This agreement shall be certified, as to its correctness, by the Engineer. Upon approval of such final agreement by the Director, Office of Construction Management, it shall be submitted to the Chief Engineer,

Department of Engineering for final approval. The right, however, is hereby reserved to the Chief Engineer, Department of Engineering to reject the whole or any portion of the final agreement, should the said certificate of the Engineer be found or known to be inconsistent with the terms of the agreement or otherwise improperly given. All certificates, upon which partial payments may have been made being merely estimates, shall be subject to correction in the final certificate or final agreement.

ARTICLE 11. RIGHT TO SUSPEND WORK AND CANCEL CONTRACT.

Article 11.1 General Right to Suspend and Cancel Contract.

It is further mutually agreed that if at any time during the prosecution of the work the Authority shall determine that the work is not being performed in accordance with the Contract or for the best interest of the Authority, the Chief Engineer, Department of Engineering, may proceed in any of the following ways:

- 1) Temporarily suspend the execution of the work by the Contractor, and the Chief Engineer of the Authority may then proceed with the work under his/her own direction in such manner as will accord with the Contract Documents and be for the best interests of the Authority; or
- 2) Terminate the Contract while it is in progress, and thereupon proceed with the work by a new contract negotiated or publicly advertised, by the use of his/her own forces, by calling upon the Surety to complete the Work in accordance with the Contract Documents, or by a combination of any such methods; or
- 3) Cancel the Contract and re-advertise and re-procure in accordance with applicable law; or
- 4) Complete the Work under the Authority's direction in such a manner as will accord with the Contract Documents and be for the best interests of the Authority.

Any excess in the cost of completing the Contract beyond the Contract Price for which it was originally awarded shall be charged to and paid by the Contractor failing to perform the Work or its Surety, all pursuant to the provisions of Section 40 of the New York State Highway Law.

In the event of suspension or termination, the Contractor shall be paid its costs, including contract close-out costs, and profit on work satisfactorily performed and project design costs actually incurred up to the time of termination, less an amount necessary to satisfy any claims, liens or judgments against the Contractor. The Contractor shall promptly submit its termination claim. The Contractor will only be paid the contract price for materials delivered and accepted, or services performed in accordance with the manner or performance set forth in this contract, less an amount necessary to satisfy any claims, liens or judgments against the Contractor.

Whenever the Authority determines to suspend or stop Work under this Contract, a written notice sent by mail to the Contractor at its address and to its Sureties at their respective addresses shall be sufficient notice of its action in the premises.

Article 11.2 Termination for Cause.

- A. If at any time during the prosecution of the work the Chief Engineer shall determine that the work under the Contract is not being performed according to the Contract or any

provision of the Contract is violated by the Contractor or by any subcontractor or that an Event of Default (as defined below) has occurred hereunder, the Chief Engineer, in his or her sole and absolute discretion, may proceed in any of the following ways:

- (1) Suspend or stop work by the Contractor, and the Chief Engineer may then complete the Work under his/her own direction in such manner as further described in the Contract Documents and as determined by the Chief Engineer to be in the best interests of the Authority; or
- (2) Terminate the Contract while it is in progress, and thereupon complete the work by: a new contract negotiated or publicly advertised; use of the Authority's own forces; calling upon the Surety to complete the Work in accordance with the Contract; or a combination of any such methods; or
- (3) Terminate the Contract and re-advertise as provided in law or if applicable, demand upon the Surety to complete any and all remaining work pursuant to the terms of the Contract and the Faithful Performance Bond.

As used herein, an "Event of Default" shall mean a material breach of the Contract by the Contractor which, without limitation, the following has occurred: (i) the Contractor has failed to begin the work in accordance with the Contract requirements; (ii) performance of this Contract has been unnecessarily or unreasonably delayed, (iii) the Contractor has willfully violated any of the provisions of the Contract or has not executed the same in good faith and in accordance with this Contract; (iv) the Contractor has abandoned the work; (v) the Contractor has become insolvent (other than as a bankrupt), or has assigned the proceeds of this Contract for the benefit of creditors, or taken advantage of any insolvency statute or debtor or creditor law or if his property or affairs have been put in the hands of a receiver; (vi) the Contractor has failed to obtain an approval required by the Contract; (vii) the Contractor has failed to provide the required insurances; (viii) the Contractor has failed to provide "adequate assurance" as required; or (ix) the Contractor is found to be non-responsible.

- B. Any excess in the cost of completing the Contract beyond the price for which it was originally awarded shall be charged to and paid by the Contractor failing to perform the work or by the Contractor's Surety, pursuant to the terms and conditions of Section 40 of the New York State Highway Law and the Faithful Performance Bond.
- C. Whenever the Authority determines to suspend, stop work, or terminate under this provision of the Contract, the Contractor and Surety shall receive written notice specifying the basis for such default (the "Default Notice"). Contractor shall have fifteen (15) days from the date of the Default Notice to cure such default, except that, at Authority's sole discretion, the Authority may extend such fifteen (15) day period for such additional period as the Authority shall deem appropriate without waiver of any of its rights hereunder. The Default Notice shall specify the date the Contractor is to discontinue all work if such default is not timely cured (the "Termination Date"). If the Event of Default is not cured or arrangements satisfactory to the Authority are not made (as evidenced in writing by the Authority) within the designated cure period, then Contractor shall suspend work and/or the Contract shall terminate, as the case may be, upon the Termination Date.

- D. Upon occurrence of an Event of Default or a termination for cause pursuant to this Article, the Authority has the remedies set forth in the Faithful Performance Bond, the Contract, and all remedies at law or in equity.
- E. In the event the termination for cause is determined to be improper, the termination shall be deemed a Termination for Convenience as identified in Article 11.3.

Article 11.3 Termination for Convenience.

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

Whenever the New York State Thruway Authority determines to suspend or stop work under the contract, a written notice sent by mail to the Contractor at its address and to the sureties at their respective addresses, shall be sufficient notice of its action in the premises.

Article 11.4 Termination for Vendor Responsibility.

- A. Contractor shall at all times during the Contract term remain responsible. Contractor agrees, if requested by the Authority, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity.
- B. The Authority, in its sole discretion, reserves the right to suspend any or all activities under this Contract, at any time, when it discovers information that calls in to question the responsibility of Contractor. In the event of such suspension, Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, Contractor shall comply with the terms of the suspension order. Contract activity may resume at such time as the Authority issues a written notice authorizing a resumption of performance under the Contract.
- C. Notwithstanding any other provision of this Contract, if the Authority determines Contractor to be non-responsible, the Authority shall have the right to terminate the Contract for cause pursuant to the terms of Article 11.2 - Termination for Cause herein.

In such event, the Authority shall have all rights and remedies set forth in Article 11.2, including, without limitation, the right to complete Contractor's contractual requirements in any manner the Authority may deem advisable and to pursue available legal or equitable remedies for the breach.

- D. In no event shall termination of the Contract by the Authority for reasons of Contractor's non-responsibility be deemed a breach by the Authority, nor shall the Authority be liable for any damages or lost profits or otherwise that Contractor may incur as a result of such termination.
- E. The Authority may require at any time the removal of a subcontractor to the Contractor that the Authority determines is not responsible.

ARTICLE 12. DETERMINATION AS TO VARIANCES.

In any case of any ambiguity in the plans, specifications or maps, or between any of them, the matter must be immediately submitted to the Chief Engineer, Department of Engineering, who shall adjust the same, and his/her decision in relation thereto shall be final and conclusive upon the parties.

ARTICLE 13. SUCCESSORS AND ASSIGNS.

This Agreement shall bind the successors, assigns and representatives of the parties hereto.

ARTICLE 14. INTERNATIONAL BOYCOTT PROHIBITION.

In accordance with Chapter 406 of the Laws of 1981, the Contractor hereby promises, asserts and represents that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating or shall participate in an international boycott in violation of the provisions of the United States Export Administration Act of 1969, as amended, or the United States Export Administration Act of 1979, or the effective Regulations of the United States Department of Commerce promulgated under either act.

It is understood further that the Authority in awarding a contract does so in material reliance upon the promise and representation made by the Contractor in the foregoing paragraph and that such contract shall be rendered forfeit and void by the State Comptroller if subsequent to the bid execution date, the Contractor or such owned or affiliated person, firm, partnership or corporation has been convicted of a violation of the aforesaid Acts or Regulations or has been found upon final determination of the United States Commerce Department or any other appropriate agency of the United States to have violated such Acts or Regulations.

The Contractor agrees to and shall notify the Chief Engineer, Department of Engineering and the Director of the Office of Construction Management and the Director of State Expenditures in the Office of the State Comptroller of any such conviction or final determination of violation within five (5) days thereof.

ARTICLE 15. CERTIFICATION OF STATE FINANCE LAW SECTIONS 139-J AND 139-K.

By execution of this Agreement the Contractor certifies that all information provided with respect to New York State Finance Law Section 139-j and Section 139-k is complete, true and accurate. The Authority shall have a right to terminate this Agreement in the event the Authority finds that the certification made by the Contractor in accordance with New York State Finance Law Sections 139-j and 139-k was intentionally false or intentionally incomplete. This

includes the Authority's right to terminate this Agreement at any time in the event the Authority finds that Contractor is non-responsible or has failed to accurately disclose vendor responsibility information.

ARTICLE 16. WRITTEN NOTICES.

All notices permitted or required hereunder shall be in writing and transmitted by either:

- a. certified or registered United States mail, return receipt requested;
- b. facsimile transmission;
- c. personal delivery;
- d. expedited delivery service; or
- e. e-mail.

Such notices shall be addressed to the individuals or titles named in the contract documents, or which are designated by the Contractor or the Authority at the pre-construction meeting, or which are designated by the Authority or the Contractor from time to time during the course of the Contract pursuant to the requirements herein.

Any such notice shall be deemed to have been given either at the time of personal delivery or, in the case of expedited delivery service or certified or registered United States mail, as of the date of first attempted delivery at the address and in the manner provided herein, or in the case of facsimile transmission or email, upon receipt.

The parties may, from time to time, specify a new or different address in the United States as their address for the purpose of receiving notice under this Agreement by giving fifteen (15) days written notice to the other party sent in accordance herewith. The parties agree to mutually designate individuals as their respective representatives for the purposes of receiving notices under this Agreement. Additional individuals may be designated in writing by the parties for purposes of implementation and administration/billing, resolving issues and problems and/or for dispute resolution.

ARTICLE 17. SUBCONTRACTING.

Contractor agrees not to subcontract any of its services without the prior written approval of the Authority.

Contractor retains ultimate responsibility for all services performed under the Agreement and shall pay any subcontractors promptly for work performed under this Agreement. Contractor shall be fully responsible to the Authority for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, just as Contractor is fully responsible to the Authority for the acts and omissions of persons directly employed by Contractor.

All subcontracts shall be in writing and shall contain provisions, which are functionally identical to, and consistent with, the provisions of this Agreement including, but not limited to, the body of this Agreement, Appendix A – Standard Clauses for New York State Thruway Authority Contracts, and the Contract Documents. Unless expressly waived in writing by the Authority, all subcontracts between the Contractor and its subcontractors shall expressly name the Authority, as the sole intended third party beneficiary of such subcontract. The Authority reserves the right to review and approve or reject any subcontract, as well as any amendment to said subcontract(s), and this right shall not make the Authority a party to any subcontract or create any right, claim, or interest in the subcontractor or proposed

subcontractor against the Authority. The Authority shall have the right to withdraw its consent to a subcontractor if, at the sole discretion of the Authority, it appears that the subcontract will delay, prevent, or otherwise impair Contractor's performance of services under this Agreement. Upon request, Contractor shall furnish to the Authority copies of all Contracts between Contractor and its subcontractors used to perform services for this Agreement.

The Authority reserves the right, at any time during the term of the Agreement, to verify that the written subcontract between Contractor and its subcontractors is in compliance with all of the provisions of this Article 17 and any subcontract provisions contained in this Agreement.

Contractor shall give the Authority immediate notice in writing of the initiation of any legal action or suit which relates in any way to a subcontract with a subcontractor or which may affect the performance of the Contractor's duties under the Agreement. Any subcontract shall not relieve the Contractor in any way of any responsibility, duty and/or obligation of the Agreement.

If at any time during performance under this Agreement total compensation to a subcontractor exceeds or is expected to exceed \$100,000, said subcontractor shall be required to electronically submit and certify a new Vendor Responsibility Questionnaire directly to the Office of the New York State Comptroller, or submit and certify all necessary updated information thereof.

Nothing contained in this Agreement shall create any contractual relationship between a subcontractor and the Authority.

ARTICLE 18. CONFIDENTIALITY AND NON-DISCLOSURE.

- A. "Confidential Information" means any information not generally known to the public, or that the Authority claims is confidential, whether oral, written, or electronic, that the Authority discloses, directly or indirectly, through any means of communication, to Contractor. Confidential Information includes, but is not limited to, operational and infrastructure information relating to: bid documents, plans, drawings, specifications, reports, product information and data; business and security processes and procedures; personnel and organizational data; financial statements; information system IP addresses, passwords, security controls, architectures and designs; and such other data, information and images that the Authority deems confidential.
- B. Confidential Information does not include information which, at the time of the Authority's disclosure to Contractor: (1) is already in the public domain or becomes publicly known through no act of Contractor; or (2) is already known by Contractor free of any confidentiality obligations.

If Contractor wants to disclose Confidential Information, it shall notify the Authority and specify the Confidential Information it wants to disclose. Contractor may only disclose such Confidential Information if the Authority approves such disclosure in writing, subject to such other terms and conditions as the Authority may require. Such approval, if given, shall only apply to the particular request and the specific Confidential Information for

which it is given.

If Contractor is required to disclose or make available, directly or indirectly, Confidential Information pursuant to statute, court or administrative order, subpoena, contractual obligation, or otherwise by law, Contractor shall: (1) notify the Authority that it has received such legal demand as soon as practicable, but in all events prior to any disclosure; (2) permit the Authority to take the steps it deems necessary and appropriate to protect the Confidential Information from disclosure; (3) cooperate to the fullest extent possible under the law with the Authority's efforts to protect the Confidential Information from disclosure; and (4) disclose only such Confidential Information, and only such portions thereof, as is required to satisfy the legal demand, and limit any such disclosure of Confidential Information to the fullest extent permissible under the law.

- C. Contractor may use Confidential Information solely for the purposes of providing services to the Authority pursuant to this Agreement. Contractor may make copies of Confidential Information but only to the extent necessary for the disclosures and uses permitted by this Agreement. Contractor will make commercially reasonable efforts to ensure that any copy of Confidential Information that is made is marked to show that it is or contains Confidential Information. Contractor may share Confidential Information with third parties: (i) that are required for Contractor's provision of services to the Authority pursuant to this Agreement (e.g., Contractors and subcontractors); and (ii) that agree in writing to be bound by the confidentiality provisions of this Agreement; however, Contractor may share only that Confidential Information that is necessary to the third party's contribution to Contractor's provision of services to the Authority pursuant to this Agreement and Contractor must first obtain the Authority's prior written consent.

The Authority's disclosure of Confidential Information to Contractor shall not convey to Contractor any right, title, or interest in or to such Confidential Information, and this Agreement does not transfer ownership of Confidential Information or grant a license thereto. The Authority shall retain all right, title, and interest in and to all such Confidential Information at all times.

- D. Contractor shall hold Confidential Information confidential to the maximum extent permitted by law. Contractor shall safeguard Confidential Information with at least the same level of care and security that Contractor uses to maintain and protect from disclosure its own confidential information, using all reasonable and necessary security measures, devices, and procedures that Contractor uses to maintain its own confidential information, but in all events with not less than reasonable care.

Contractor shall take reasonable steps to prevent unauthorized access to, use of, or disclosure of Confidential Information, including without limitation, by protecting its passwords and other log-in information. Contractor shall notify the Authority immediately of any known or suspected misuse or misappropriation of Confidential Information and shall use its best efforts to stop said misuse or misappropriation.

- E. Upon written request of the Authority, or upon expiration or termination of this Agreement, Contractor shall return all Confidential Information to the Authority, or certify in writing that it has been destroyed and no copies exist.

- F. Contractor agrees that breach of this Article 18 would cause the Authority irreparable

injury, for which monetary damages would not provide adequate compensation, and that in addition to any other remedy, the Authority will be entitled to injunctive relief against such breach or threatened breach, without proving actual damages or posting a bond or other security.

- G. Without limiting the foregoing, the obligations and assurances involving Confidential Information pursuant to this Agreement shall survive termination or expiration of this Agreement.

ARTICLE 19. NEW YORK STATE HUMAN RIGHTS LAW, ARTICLE 15 OF THE EXECUTIVE LAW.

The New York State Human Rights Law, Article 15 of the Executive Law, prohibits discrimination (including to refuse to hire or employ or to bar or to discharge from employment an individual or to discriminate against such individual in compensation or in terms, conditions or privileges of employment) and harassment based on age, race, creed, color, national origin, sex, , sexual orientation, gender identity or expression, disability, marital status, familial status, domestic violence victim status, prior arrest or conviction record, military status or predisposing genetic characteristics, or because the individual has opposed any practices forbidden under the Human Rights Law or because the individual has filed a complaint, testified or assisted in any proceeding under the Human Rights Law, regardless of whether such harassment would be considered severe or pervasive under precedent applied to harassment claims. Harassment is an unlawful discriminatory practice when it subjects an individual to inferior terms, conditions or privileges of employment because of the individual's membership in one or more of these protected categories.

The Human Rights Law may also require reasonable accommodation for persons with disabilities and pregnancy-related conditions. A reasonable accommodation is an adjustment to a job or work environment that enables a person with a disability to perform the essential functions of a job in a reasonable manner. The Human Rights Law may also require reasonable accommodation in employment on the basis of Sabbath observance or religious practices.

Generally, the Human Rights Law applies to:

- all employers of four or more people, employment agencies, labor organizations and apprenticeship training programs in all instances of discrimination or harassment;
- employers with fewer than four employees in all cases involving sexual harassment; and,
- any employer of domestic workers in cases involving sexual harassment or harassment based on gender, race, religion or national origin.

In accordance with New York State Executive Order No. 177, by execution of this Agreement, Contractor hereby certifies, that it does not have institutional policies or practices that fail to address the harassment and discrimination of individuals on the basis of their age, race, creed, color, national origin, sex, sexual orientation, gender identity, disability, marital status, military status, or other protected status under the Human Rights Law.

Executive Order No. 177 and the aforementioned certification do not affect institutional policies or practices that are protected by existing law, including but not limited to the First Amendment of the United States Constitution, Article 1, Section 3 of the New York State Constitution, and Section 296(11) of the New York State Human Rights Law.

ARTICLE 20. DEBARMENT CERTIFICATION.

A. The Contractor certifies to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;
2. Have not within a three-year period preceding this contract been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (A)(2) of this certification; and
4. Have not within a three-year period preceding this application/proposal/contract had one or more public transactions (Federal, State or local) terminated for cause or default.

ARTICLE 21. CONFLICTS OF INTEREST.

- A. Contractor has provided as Exhibit V (attached hereto and made a part of this Agreement), the Vendor Assurance of No Conflict of Interest or Detrimental Effect form, signed by an authorized executive or legal representative attesting that Contractor's performance of the services does not and will not create a conflict of interest with, nor position Contractor to breach any other contract currently in force with the Authority or the State of New York, that Contractor will not act in any manner that is detrimental to any Authority or State of New York project for which Contractor is rendering services.
- B. Contractor hereby reaffirms the attestations made in its proposal and covenants and represents that there is and shall be no actual or potential conflict of interest that could prevent Contractor's satisfactory or ethical performance of duties required to be performed pursuant to the terms of this Agreement. Contractor hereby agrees it shall have a continuing affirmative duty and obligation to notify the Authority immediately of any actual or potential conflicts of interest.
- C. In conjunction with any subcontract under this Agreement, Contractor shall obtain and deliver to the Authority, prior to entering into a subcontract, a Vendor Assurance of No Conflict of Interest or Detrimental Effect form, signed by an authorized executive or legal representative of the subcontractor. Contractor shall also require in any subcontracting agreement that the subcontractor, in conjunction with any further subcontracting agreement, obtain and deliver to the Authority a signed and completed Vendor Assurance of No Conflict of Interest or Detrimental Effect form for each of its subcontractors prior to entering into a subcontract.
- D. The Authority and Contractor recognize that conflicts may occur in the future because

Contractor may have existing, or establish new, relationships. The Authority will review the nature of any relationships and reserves the right to terminate this Agreement for any reason, or for cause, if, in the judgment of the Authority, a real or potential conflict of interest cannot be cured.

ARTICLE 22. ETHICS.

Contractor and subcontractors may hire former State agency or Authority employees. However, as a general rule and in accordance with New York Public Officers Law, former employees of the Authority may neither appear nor practice before the Authority, nor receive compensation for services rendered on a matter before the Authority, for a period of two years following their separation from Authority service. In addition, former Authority employees are subject to a "lifetime bar" from appearing before the Authority or receiving compensation for services regarding any transaction in which they personally participated or which was under their active consideration during their tenure with the Authority.

During the term of the Agreement, Contractor and its subcontractors shall not engage any person who is, or has been at any time, in the employ of the Authority or New York State to perform services under the Agreement in violation of: the provisions of the Public Officers Law ("POL"); the rules, regulations, opinions, guidelines, or policies promulgated or issued by the New York State Joint Commission on Public Ethics ("JCOPE Regulations"); and any other laws applicable to the service of current or former Authority or New York State employees ("Other Laws," and, together with POL and JCOPE Regulations, collectively, the "Ethics Provisions"). Contractor certifies that all of its employees and employees of any subcontractor who are former employees of the Authority or New York State and who are assigned to perform services under the Agreement shall be assigned in accordance with all Ethics Provisions. Further, during the term of the Agreement, no person who is employed by Contractor or its subcontractors and who is disqualified from providing services under the Agreement pursuant to any Ethics Provisions may share in any net revenues Contractor or its subcontractors derives from the Agreement.

Contractor shall identify and provide the Authority with notice of those employees of Contractor or its subcontractors who are former employees of the Authority or New York State and who will be assigned to perform services under the Agreement, and shall ensure that such employees comply with all applicable laws and prohibitions. The Authority may, request that Contractor provide it with whatever information the Authority deems appropriate about each such person's engagement, work cooperatively with the Authority to solicit advice from the New York State Joint Commission on Public Ethics, and, if deemed appropriate by the Authority, instruct any such person to seek the opinion of the Joint Commission on Public Ethics. The Authority shall have the right to withdraw or withhold approval of any subcontractor if utilizing such subcontractor for any work performed hereunder would be in conflict with any of the Ethics Requirements. The Authority shall have the right to cancel or terminate the Agreement at any time if any work performed under the Agreement is in conflict with any Ethics Provisions.

ARTICLE 23. MINORITY AND WOMEN BUSINESS ENTERPRISE GOALS AND SERVICE DISABLED VETERANS OWNED BUSINESS GOALS.

This Contract is subject to State provisions (including State Executive Law 15-A and 5 NYCRR Parts 140-145) concerning the utilization of Minority-Owned Business Enterprises (MBE) and Women-Owned Business Enterprises (WBE) (collectively M/WBE). All State M/WBE requirements are applicable to this Contract. The approved overall combined MBE and WBE participation goal for the project is established in the Contract Documents.

This Contract is subject to State provisions (including State Executive Law 15-A and 5 NYCRR Parts 140-145) concerning the utilization of Service Disabled Veterans Owned Business (SDVOB). All State SDVOB requirements are applicable to this Contract. The approved overall SDVOB participation goal for the project is established in the Contract Documents.

ARTICLE 24. IRAN DIVESTMENT ACT- SECTION 2879-C OF THE PUBLIC AUTHORITIES LAW.

- A. As used in this Article 24, "person" has the meaning set forth in paragraph (e) of subdivision 1 of Section 165-a of the State Finance Law.
- B. As used in this Article 24 "Contract" means this Agreement.
- C. Contractor hereby provides the following certification: By signing this Contract, each person and each person signing on behalf of any other party certifies, and in the case of a joint bid or partnership each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each person is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law.

ARTICLE 25. COVENANT AGAINST CONTINGENT FEES.

Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working for Contractor, to solicit or secure this Agreement, and has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this Agreement. In the event Contractor violates this warranty, Authority shall have the right to terminate this Agreement without liability, or, in its discretion, to deduct from payments otherwise owed to the Contractor for services provided pursuant to this Agreement the full amount of such fee, commission, percentage, brokerage fee, gift or other consideration.

ARTICLE 26. COMPLIANCE MONITORING.

In the event that the Contractor, its affiliates or any subcontractor is or becomes subject to a compliance monitoring requirement consequent to an agreement with a governmental entity at any time prior to completion of the contract, the Contractor shall promptly notify the Authority of the same. Compliance monitoring means any requirement imposed by a governmental entity arising from an investigation of activities of the Contractor, its affiliates, or any subcontractor concerning alleged compliance violations, pursuant to which the subject entity is obligated to allow an independent third party to review, analyze, investigate or report on that entity's future compliance with governmental rules and/or contractual requirements arising from governmental rules. Said notice shall be in writing and shall include (i) a copy of the order, settlement or other document setting forth the requirement to implement a monitoring program and (ii) the specific requirements and conditions of the required program. If the order, settlement or other document is subject to confidentiality protection that cannot be unilaterally waived by the Contractor or the entity that is subject to the requirement, the Contractor shall cause the subject entity to confirm that it is subject to a compliance monitoring requirement

and to provide a confidential summary of the terms and conditions of the monitoring requirement to the Contractor, with a copy to the Authority.

The Contractor shall further cause the subject entity to promptly notify the Contractor, with a copy to the Authority, of any violations of the monitoring program by the subject entity and of any other concerns expressed by the monitor regarding compliance with the monitoring program requirements. In such event, the Contractor shall provide to the Authority a detailed written report as to whether and to what extent, if any, the violation or concerns expressed by the monitor are relevant to the Contractor's compliance with its Contract obligations, or to the performance of work by the Contractor. The Authority shall at all times have the right to independently investigate whether any matter raised by the monitor will have any effect upon the Contractor's compliance with its Contract obligations or performance of work by the Contractor and/or subject entity. If any such violation occurs or concerns expressed by the monitor involve compliance requirements that are deemed by the Authority to be relevant to the Contract, the Authority shall have the right to require the Contractor to institute, at Contractor expense, additional data keeping, reporting, and/or other safeguard measures, including permitting independent auditing and access to pertinent records of the Contractor or the subject entity to mitigate risk that a similar violation will occur on the project or be a cause for concern with respect to the Contractor's performance of its obligations under the Contract. The Authority's audit rights under the Contract shall include the right to audit and access pertinent records of the Contractor or the subject entity relating to compliance issues described herein.

The Authority agrees to take all reasonable measures to maintain the confidentiality (to the extent permitted by law) of any information provided by Contractor and/or the subject entity pursuant to this Article 26 which the Contractor has reasonably designated as confidential, and the provisions of Appendix A, Section 9 of the New York State Thruway Authority Addendum to the Standard Specifications, of the Agreement shall apply with respect to disclosure of any such Records under the Statute (as defined in such section). Any intra-agency written materials prepared by the Authority, or any written inter-agency materials that are in the possession or control of the Authority, to the extent based on information or records designated as confidential or exempt from disclosure under the Statute as provided in the preceding sentence, shall also be designated and treated as such by the Authority to the fullest extent permitted by law. The Authority may disclose any of the aforementioned information, records and materials to the New York State Department of Transportation, provided that the Department agrees to treat such information, records and material in the same manner as required of the Authority under this paragraph.

The rights and remedies granted to the Authority under this Article 26 are in addition to, and not to the exclusion of, any and all of its rights and remedies under the Contract or at law or in equity.

ARTICLE 27. INDEMNIFICATION.

The Contractor shall be responsible for all damage to life and property due to negligent or otherwise tortious acts, errors or omissions of the Contractor in connection with its services under the Contract Documents. To the fullest extent permitted by law: (a) the Contractor shall indemnify, hold harmless, and release the Authority, the State of New York, any municipality in which the Work is being performed; and/or any public benefit corporation, railroad or public utility whose property or facilities are affected by the Work from suits, claims, actions, damages, and costs of every name and description resulting from the Work under this Contract and until the Final Acceptance thereof; (b) with respect to personal injury or property damage occurring after Final Acceptance and not covered by the indemnity in clause Article 27 (a), the Contractor shall indemnify, hold harmless, and release the Authority, the State of New York, any municipality in which the Work is being performed;

and/or any public benefit corporation, railroad or public utility from suits, claims, actions, damages, and costs of every name and description resulting from negligent or otherwise tortious acts, errors or omissions of the Contractor in connection with its services under the Contract Documents; and (c) the Contractor shall indemnify, hold harmless, and release the Authority's Inspector from suits, claims, actions, damages, and costs involving personal injury and property damage resulting from the Contractor's Work under the Contract during its prosecution and until the Final Acceptance thereof. The Authority may retain such monies from the amount due the Contractor as may be necessary to satisfy any claim for damages recovered against the Authority, the State of New York, any municipality in which the Work is being performed, any public benefit corporation, railroad, or public utility whose property or facilities are affected by the Work, or the Authority's Inspectors. The Contractor's obligation under this paragraph shall not be deemed waived by the failure of the Authority to retain the whole or any part of such monies due the Contractor, or where such suit, action, damages, and/or costs have not been resolved or determined prior to release of any monies to the Contractor under the Contract. Such obligation shall not be deemed limited or discharged by the enumeration or procurement of any insurance for liability for damages imposed by law upon the Contractor, Subcontractors, the Authority, the State, any municipality in which the Work is being performed, any public benefit corporation, railroad, or public utility whose property or facilities are affected by the Work, or any Department consultants or contractors working relative to the Project.

The Contractor has the obligation, at its own expense, for the defense of any action or proceeding which may be brought against the parties specified in this Article. This obligation shall include the cost of attorney fees, disbursements, costs, and other expenses incurred in connection with such action or proceeding. The provisions of this Article shall survive the expiration or termination of the Contract.

Without limiting the generality of the foregoing, Contractor's obligation to indemnify, save harmless and release the Persons identified in this article specifically includes any suits, claims, actions, damages, and costs of every name and description resulting from any spill or release or threatened spill or release of a Hazardous Material (i) attributable to the negligence, willful misconduct or breach of contract by Contractor, its Subcontractors or agents, or (ii) which was brought onto the Site by Contractor or any of its Subcontractors or agents.

Notwithstanding the foregoing, the Authority reserves the right to join such action, at its sole expense, when it determines there is an issue involving a significant public interest. Such obligation does not extend to those suits, actions, damages, and costs of every name which arise out of the sole negligence of the Authority, the State of New York, any municipality in which the Work is being performed, any public benefit corporation, railroad, or public utility whose property or facilities are affected by the Work of the Project, or any Authority consultants or Contractors working relative to the Project, their agents, or their employees.

ARTICLE 28. NOTICES REGARDING CLAIMS, LITIGATION AND RULINGS.

The Contractor shall promptly provide written notice to the Authority of all claims, litigation and governmental rulings pertaining to the work where such claims, litigation or rulings could subject the Authority to liability or substantially impair the completion of the Contract work. With such notice, the Contractor shall include a brief summary of the issue involved and the Contractor's position on such issue. Such written notice is additional to and not in place of any other notices required by the Contract Documents. The Contractor shall cooperate and provide, and shall require all subcontractors to cooperate and provide, such information or

records as may be reasonably requested by the Authority concerning such claims, litigation or rulings.

ARTICLE 29. COOPERATION AND FURTHER ASSURANCES.

Contractor shall cooperate and provide, and shall cause all subcontractors to cooperate and provide, such information as is necessary or requested by the Authority to assist or facilitate the submission by the Authority of any documentation, reports or analysis required by the State, and/or any other governmental entity with jurisdiction over the work. The Contractor shall promptly execute and deliver to the Authority all such instruments and other documents and assurances as are reasonably requested by the Authority to further evidence the obligations of the Contractor under the Contract.

ARTICLE 30. SEVERABILITY.

If any clause, provision, section, article or part of any of the Contract Documents is ruled invalid by a court having proper jurisdiction, the invalidity or unenforceability of any such clause, provision, section, article or part shall not affect the validity or enforceability of the balance of the Contract Documents, which shall be construed and enforced as if the Contract Documents did not contain such invalid or unenforceable clause, provision, section, article or part.

ARTICLE 31. ENVIRONMENTAL REVIEW

Article 31.1 Lead Agency

The Authority reserves the right to be “lead agency” for any compliance with the New York State Environmental Quality Review Act (SEQRA), and the appropriate federal agency shall serve as “lead agency” for the National Environmental Policy Act (NEPA), as may be required for this Agreement or any activity undertaken by Contractor pursuant to this Agreement.

Article 31.2 Executive Order 22

Embodied Carbon Disclosure: For building materials covered by the GreenNY Council Embodied Carbon Guidance, Contractors and designers shall disclose, at regular intervals during the course of the contract period (and no less than once a year), the exact materials/product type and estimated quantities used. For materials for which Environmental Product Declarations (EPDs) exist that comply with the GreenNY Council requirements, Contractors are also required to submit kgCO₂ equivalent estimates by material/product, and quantity used, on the project to date, with a .pdf copy of the EPD or a link to the digital EPD. (Please see the EO22 Special Note contained in the Special Notes section of this proposal).

Contract Number:

In addition to the acceptance of this contract, I also certify that original copies of this signature page will be attached to all other exact copies of this contract.

IN-WITNESS WHEREOF, the parties hereto have executed this agreement on the day and year first above written.

NEW YORK STATE
THRUWAY AUTHORITY

By _____
Chief Engineer

Date _____

Contractor

NEW YORK STATE
THRUWAY AUTHORITY

Recommended as to Availability of Funds:

By _____
Chief Financial Officer

Date _____

(ACKNOWLEDGMENT BY INDIVIDUAL CONTRACTOR)

STATE OF NEW YORK

COUNTY OF _____ ss.:

On this _____ day of _____, 202_,
before me personally came _____ 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

(ACKNOWLEDGMENT BY CO-PARTNERSHIP CONTRACTOR)

STATE OF NEW YORK

COUNTY OF _____ ss.:

On this _____ day of _____, 202
before me personally came and appeared _____ to me known and known
to me to be the person who executed the above instrument, who, being sworn by me, did for himself
depose and say that he is a member of the firm of _____ consisting of
himself and _____ and that he executed the foregoing instrument in the
firm name of _____ and that he had authority to sign same, and he did duly
acknowledge to me that he executed the same as the act and deed of said firm of
_____, for the uses and purposes mentioned therein.

Notary Public

(ACKNOWLEDGEMENT OF A CORPORATION)

STATE OF NEW YORK }
 }
COUNTY OF }

On this _____ day of _____, 202_,
before me personally came _____, to me known and known to me to
be the person who executed the above instrument, who being duly sworn by me, did depose and
say that he/she resides in _____, that he/she is the
_____ of _____, the corporation
described in and which executed the above instrument, and that he/she signed his/her name thereto
on behalf of said Corporation by order of the Board of Directors of said Corporation.

Notary Public

Exhibit V**Vendor Assurance of No Conflict of Interest or Detrimental Effect**

The undersigned entity (“Contractor”), offering to provide services pursuant to this Agreement, as a contractor, joint venture contractor, subcontractor, or consultant, attests that its performance of the services outlined in this Agreement does not and will not create a conflict of interest with nor position the Contractor to breach any other contract currently in force with the New York State Thruway Authority (“Authority”).

Furthermore, the Contractor attests that it will not act in any manner that is detrimental to any Authority project on which the Contractor is rendering services. Specifically, the Contractor attests and certifies that:

1. The fulfillment of obligations by the Contractor does not violate any existing contracts or agreements between the Contractor and the Authority;
2. The fulfillment of obligations by the Contractor does not and will not create any conflict of interest, or perception thereof, with any current role or responsibility that the Contractor has with regard to any existing contracts or agreements between the Contractor and the Authority;
3. The fulfillment of obligations by the Contractor does not and will not compromise the Contractor’s ability to carry out its obligations under any existing contracts between the Contractor and the Authority;
4. The fulfillment of any other contractual obligations that the Contractor has with the Authority will not affect or influence its ability to perform under the Agreement;
5. During the negotiation and execution of any contract, the Contractor will not knowingly take any action or make any decision which creates a potential for conflict of interest or might cause a detrimental impact to the Authority as a whole including, but not limited to, any action or decision to divert resources from one Authority project to another;
6. In fulfilling obligations under each of its Authority contracts, including this Agreement, the Contractor will act in accordance with the terms of each of its Authority contracts and will not knowingly take any action or make any decision which might cause a detrimental impact to the Authority as a whole including, but not limited to, any action or decision to divert resources from one Authority project to another;
7. No former officer or employee of the Authority or State of New York (“State”) who is now employed by the Contractor, nor any former officer or employee of the Contractor who is now employed by the Authority or State, has played a role with regard to the administration of this contract procurement in a manner that may violate section 73(8)(a) of the New York State Public Officers Law; and
8. The Contractor has not and shall not offer to any employee, member or director of the Authority any gift, whether in the form of money, service, loan, travel, entertainment, hospitality, thing or promise, or in any other form, under circumstances in which it could reasonably be inferred that the gift was intended to influence said employee, member or director, or could reasonably be expected to influence said employee, member or director, in the performance of the official duty of said

employee, member or director or was intended as a reward for any official action on the part of said employee, member or director.

Contractor agrees that the Authority recognizes that conflicts may occur in the future because a Contractor may have existing or new relationships. The Authority will review the nature of any such new relationship and reserves the right to terminate the contract for cause if, in its judgment, a real or potential conflict of interest cannot be cured.

This form must be signed by an authorized executive or legal representative.

Contractor Name

Name of Signatory

Title of Signatory

Signature:

Date:

224

CONTRACT:

COUNTY:

FAITHFUL PERFORMANCE BOND

BOND

Know all men by these presents, that we (hereinafter called the "Principal")

and _____

of _____ (hereinafter called the "Surety") are held and firmly bound unto the New York State Thruway Authority, (hereinafter called the "Authority"), in the full and just sum of _____ good and lawful money of the United States of America for the payment of which said sum of money, well and truly to be made and done, the said Principal binds himself, his heirs, executors, administrators or assignees and the said SURETY binds itself, its successors or assigns, jointly and severally, firmly by these presents.

Signed, sealed and dated this _____ of _____, 202_____,

Whereas, said Principal has entered into a certain written contract bearing date of the _____ day of _____, 202 with the Authority for:

Now, therefore, THE CONDITION OF THIS OBLIGATION IS SUCH that if the said Principal shall well, truly and faithfully perform the work in accordance with the terms of the contract, and with the plans and specifications, and will commence and complete the work within the time prescribed in the contract, on his part to be kept and performed according to the terms and tenor of said contract, and shall protect the said N.Y.S. Thruway Authority against, and pay any excess of cost as provided in said contract, and all amounts, damages, costs and judgments which may be recovered against said N.Y.S. Thruway Authority, N.Y.S. Dept. of Transportation the Commissioner of Transportation and the State of N.Y. or its or any of their officers or agents or which the said aforementioned may be called upon to pay to any person or corporation by reason of any damages, direct or indirect, arising or growing out of the doing of said work, or from the negligence, non-feasance, misfeasance, or malfeasance of any officer, agent or employee of the aforementioned, or suffered or claimed on account of aforesaid work during the time thereof and until the final completion and acceptance of the work, or the manner of doing the same, or the neglect of the said Principal, or his agents, or servants, or the improper performance of the said work by the said Principal, or his agents, or servants, or from any other cause, then this obligation shall be null and void, otherwise to remain in full force and virtue.

In the event of a failure of performance of the contract by the Principal, which shall include, but not be limited to, any breach or default of the contract by the Principal, or in case said contract is forfeited by the Principal in the manner provided for in the contract and the said Surety, for value received, hereby stipulates and agrees, if requested to do so by the Authority, has the option to either remedy the default, or breach or forfeiture of the Principal or take charge and fully perform and complete the work, mentioned and described in said contract and specifications, pursuant to the terms, conditions and covenants thereof and as may be amended, at its own expense. The procedure by which the surety undertakes to discharge its obligations under the bond shall be subject to the advance written approval of the Authority. If the Surety completes the contract, it shall be paid for the actual items of work performed in accordance with the Principal's contract terms and prices. In the event the Surety assumes the rights and obligations of the Principal.

It shall be the duty of the Surety to give unequivocal notice in writing to the Authority, within forty-five (45) days after receipt of written notice from the Authority to the Surety, of the Surety's election to remedy default(s) or breach(es) or forfeiture(s) promptly or to perform and fully complete the contract promptly as provided herein, time being of the essence of this bond. In said notice of election, the Surety shall state the date on which the remedy or performance shall commence. During the period between the Authority's notice and Surety's performance of the contract or remedy of the default, breach or forfeiture, the Surety shall be liable for and agrees to pay any and all reasonable and necessary costs as determined by the Authority to maintain the project site safe and convenient to the public.

It shall also be the duty of the Surety to give prompt notice in writing to the Authority upon completion of the remedy and/or correction of each breach or default or completion of the contract. The surety shall not assert solvency of its Principal or its Principal's denial of default as justification for its failure to give notice of election or for its failure to promptly remedy the breach or default or to complete the contract.

In the event the Surety shall fail to exercise either option or to act promptly then the Authority shall give ten (10) days notice of such failure, both to the Principal and the Surety, and after the expiration of the 10 days the Authority may cause the work to be completed in accordance with the contract, and the Surety and the Principal shall be jointly and severally liable for the amount of the excess cost of completing the contract work beyond the amounts remaining for this contract adjusted for the work actually performed. When the cost of completion of performance by the Obligee is estimated, the Principal and Surety shall pay, free from all liens and encumbrances, the Authority determined estimated completion costs above funds remaining for this contract, to the Authority within 30 days of receipt of the estimate. Adjustment to the Authority's estimated completion cost will be made upon the Authority's final acceptance of the work and appropriate refunds, if any, will be promptly made to the Surety. Any actual costs in excess of the estimated price shall be paid to the Authority promptly on demand. Additionally, Principal and Surety shall be liable for any applicable liquidated and/or engineering costs or damages.

In addition, the said Principal and Surety further agree, as part of this obligation, to pay all damages of any kind to person or property that may result from a failure in any respect to perform and complete said contract including, but not limited to costs necessary to protect the traveling public or to avoid inconvenience to the traveling public, (liquidated damages as provided above) all repair and replacement costs necessary to rectify construction errors, architectural and engineering costs and fees, all Contractor fees, all testing and laboratory fees, and all interest, legal fees and litigation costs incurred by the Authority.

And the said Surety hereby stipulates and agrees that no change, extension, alteration, deduction of addition in or to the terms of the said contract or the plans or specification accompanying the same shall in any wise affect the obligation of said Surety on its bond.

Contractor Name _____ L.S.

(Corporate seal of _____ L.S. Principal

principal if a corporation.) _____ L.S.

(Corporate seal of _____ L.S.
surety.)

_____ L.S. Surety

STATE OF NEW YORK
OFFICE OF THE ATTORNEY GENERAL

I hereby approve the foregoing contract and bond as to form and manner of execution.

Dated _____

Attorney General

(ACKNOWLEDGMENT BY PRINCIPAL, UNLESS IT BE A CORPORATION)

STATE OF NEW YORK,

COUNTY OF _____ ss.:

On this _____ day of _____, 202_, before me personally came _____ to me known, to be the person described in and who executed the foregoing instrument and he acknowledged that he executed the same.

Notary Public

(Notary's seal to be attached.)

(ACKNOWLEDGMENT BY PRINCIPAL, IF A CORPORATION)

STATE OF NEW YORK,

COUNTY OF _____ ss.:

On this _____ day of _____, 202_, before me personally came _____ to me known, who being by me duly sworn, did depose and say that he resides in _____, that he is the _____ of _____, the corporation described in and which executed the foregoing instrument: that he knew the seal of the said corporation: that the seal affixed to said instrument was such corporate seal: that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

Notary Public

(ACKNOWLEDGED BY SURETY COMPANY)

STATE OF NEW YORK,

COUNTY OF _____ ss.:

On this _____ day of _____, 202_, before me personally came _____ to me known, who being by me duly sworn, did depose and say that he resides in _____, that he is the _____ of _____, the corporation described in and which executed the foregoing instrument: that he knew the seal of the said corporation: that the seal affixed to said instrument was such corporate seal: that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

Notary Public

(Notary's seal to be attached.)

(The Surety Company must append statement of its financial condition and a copy of the resolution authorizing the execution of Bonds by officers of the Company.)

NEW YORK STATE THRUWAY AUTHORITY

LABOR AND MATERIAL BOND

Know all men by these presents,

That, _____
(Name of Principal)

of _____

(hereinafter called the Principal, and _____
(Name of Surety Company)

a corporation of the State of _____, authorized to do business in the State of New York, as Surety and whose principal office is located in the City of _____, State of _____ (hereinafter called the Surety), are held and firmly bound unto the NEW YORK STATE THRUWAY AUTHORITY, (hereinafter called the Authority), in the full and just sum of

_____ good and lawful money of the United States of America, for the payment of which said sum of money, well and truly to be made and done, the said Principal and Surety bind themselves, their and each of their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

Whereas, said Principal has entered into a certain written contract, with the Authority bearing date _____ day of _____ 202_, with the New York State Thruway Authority for:

Which contract is hereby referred to and made a part here of as fully and to the same extent as if copied at length herein.

Now therefore, the condition of this obligation is such that if the said Principal shall promptly pay all moneys due to all persons furnishing labor and materials to him or his subcontractors in the prosecution of work provided for in said contract. Then this obligation shall be void, otherwise to remain in full force and effect;

Provided, however, that the Comptroller of the State of New York having required the said Principal to furnish this bond in order to comply with the provisions of Section 137 of the State Finance Law, all rights and remedies on this bond shall inure solely to such persons and shall be determined in accordance with the provisions, conditions and limitations of said Section to the same extent as if they were copied at length herein; and

Further, provided, that the place of trial of any action on this bond shall be in the county in which the said contract was to be performed, or if said contract was to be performed in more than one county, then in any such county, and not elsewhere.

SIGNED, SEALED AND DELIVERED THIS _____ day of _____, 202_

(Principal(s) Sign Here)
(Affix Corporate Seal If a Corporation)

(Surety Signs Here)
(Affix Corporate Seal of Surety Co.)

FOR PRINCIPAL'S USE ONLY (Use Only One)

(INDIVIDUAL ACKNOWLEDGMENT)
UNLESS A CORPORATION

STATE OF _____

COUNTY OF _____ ss.:

On this _____ day of _____, 202_, before me personally came _____ to me known and known to me to be the person mentioned and described in and who executed in foregoing instrument and he duly acknowledged to me that he executed the same.

Notary Public

(ACKNOWLEDGEMENT OF A CORPORATION)

STATE OF NEW YORK }
 }
COUNTY OF }

On this _____ day of _____, 202_, before me personally came _____, to me known and known to me to be the person who executed the above instrument, who being duly sworn by me, did depose and say that he/she resides in _____, that he/she is the _____ of _____, the corporation described in and which executed the above instrument, and that he/she signed his/her name thereto on behalf of said Corporation by order of the Board of Directors of said Corporation.

Notary Public

FOR SURETY'S USE ONLY

(SURETY ACKNOWLEDGMENT)

STATE OF _____

COUNTY OF _____ ss.:

On this _____ day of _____, 202_, before me personally came _____ that he is the _____ of the _____ the corporation described in and which executed the above instruments; that he knows the seal of said corporation, that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of Said corporation, and that he signed his name thereto by like order.

Notary Public

APPENDIX A

Standard Clauses For New York State Thruway Authority Contracts

The parties to the attached contract, license, lease, amendment or other agreement of any kind (“the contract” or “this contract”) agree to be bound by the following clauses which are hereby made a part of the contract (the word “Contractor” herein refers to any party and its agents, successors and assigns, other than the Thruway Authority (“Authority”), whether a contractor, licensor, licensee, lessor, lessee or any other party):

1. **NON-ASSIGNMENT CLAUSE.** This contract may not be assigned by the Contractor nor may its right, title or interest therein be assigned, transferred, conveyed, subcontracted, sublet or otherwise disposed of without the previous consent, in writing, of the Authority and any attempts to assign the contract without the Authority’s written consent are null and void.

2. **COMPTROLLER APPROVAL.** Where required by law, this contract may require approval of the State Comptroller and shall not be valid until it has been approved by the State Comptroller and filed in its office.

3. **WORKERS’ COMPENSATION AND DISABILITY BENEFITS.** This contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the State Workers’ Compensation Law. If employees will be working on, near or over navigable waters, a U.S. Longshore and Harbor Workers’ Compensation Act endorsement must be included.

4. **NON-DISCRIMINATION REQUIREMENTS.** To the extent required by Article 15 of the State Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex (including gender identity or expression), national origin, sexual orientation, military status, age, disability, predisposing genetic characteristics, marital status or domestic violence victim status or because the individual has opposed any practices forbidden under the Human Rights Law or has filed a complaint, testified, or assisted in any proceeding under the Human Rights Law. Furthermore, in accordance with State Labor Law §220-e, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall by reason of race, creed, color, disability, sex or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and

available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in State Labor Law §230, then, in accordance with §239 thereof, the Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. The Contractor is subject to fines of \$50 per person per day for any violation of State Labor Law §§220-e or 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.

5. **WAGE AND HOURS PROVISIONS.** If this is a public work contract covered by Article 8 of the State Labor Law or a building service contract covered by Article 9 thereof, neither the Contractor’s employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the State Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, the Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the State Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the New York State Labor Law, the Contractor understands and agrees that the filing of payrolls in a manner consistent with subdivision 3-a of §220 of the New York State Labor Law shall be a condition precedent to payment by the Authority of any Authority approved sums due and owing for work done on the project.

6. **NON-COLLUSIVE BIDDING CERTIFICATION.** In accordance with State Public Authorities Law §2878, if this contract was awarded based upon the submission of bids, the Contractor warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. The Contractor further warrants that, at the time the Contractor submitted its bid, an authorized and responsible person executed and delivered to the Authority a non-collusive bidding certification on the Contractor’s behalf.

7. **INTERNATIONAL BOYCOTT PROHIBITION.** In accordance with State Labor Law §220-f, if this contract exceeds \$5,000, the Contractor agrees, as a material condition of this contract, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership, or corporation has participated, is participating, or shall

participate in an international boycott in violation of the Federal Export Administration Act of 1979 (50 USC App. §§2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of the Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contract's execution, such contract, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify the Authority within five (5) business days of such conviction, determination or disposition of appeal.

8. **SET-OFF RIGHTS.** The Authority shall have rights of set-off. These rights shall include, but not be limited to, the Authority's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing by the Contractor to the Authority with regard to this contract, or any other contract with the Authority, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the Authority for any other reason including, without limitation, monetary penalties, adjustments, fees, or claims for damages by the Authority and third parties in connection therewith.

9. **RECORDS.** The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract (collectively, "Records") for a period of six (6) years (or any other longer period required by law) following final payment or the termination of this contract, whichever is later, and any extensions thereto. The Authority, State Comptroller, State Attorney General and any other person or entity authorized to conduct an examination shall have access to the Records during normal business hours at an office of the Contractor within New York State, or, if no such office is available, at a mutually agreeable and reasonable venue within the State, during the contract term, any extensions thereof and said six (6) year period thereafter, for purposes of inspection, auditing and copying. As used in this clause, "termination of this contract" shall mean the later of completion of the work of the contract or the end date of the term stated in the contract. The Authority will take reasonable steps to protect from public disclosure those Records which are exempt from disclosure under State Public Officers Law §87 ("Statute") provided that: (i) the Contractor shall timely inform an appropriate Authority official, in writing, that said records should not be disclosed; (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the Authority's right to discovery in any pending or future litigation.

10. **IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION.** All invoices or New York State standard vouchers submitted for payment for the sale of goods or services or the lease of real or personal property to the

Authority must include the payee's identification number, i.e., the seller's or lessor's identification number. The number is either the payee's Federal employer identification number or Federal social security number, or both such numbers when the payee has both such numbers. Failure to include this number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on its invoice or New York State standard voucher, must give the reason or reasons why the payee does not have such number or numbers.

The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in State Tax Law §5. Disclosure of this information by the seller or lessor to the Authority is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the State Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law.

The above personal information is maintained at the New York State Thruway Authority, Department of Finance and Accounts, P.O. Box 189, Albany, New York 12201.

11. **EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN.** In accordance with State Executive Law §312, if this contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of \$25,000, whereby the Authority is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the Authority; or (ii) a written agreement in excess of \$100,000 whereby the Authority is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; or (iii) a written agreement in excess of \$100,000 whereby the owner of a State assisted housing project is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, or major repair or renovation of real property and improvements thereon for such project, then the following shall apply and by signing this contract the Contractor certifies and affirms that it is Contractor's equal employment opportunity policy that:

(a) The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability, or marital status, and shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on Authority contracts and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal

employment opportunities without discrimination. As used in this clause, "affirmative action" shall mean recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, lay-off or termination, and rates of pay or other forms of compensation.

(b) At the request of the Authority, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status, and that such union or representative will affirmatively cooperate in the implementation of the Contractor's obligations herein.

(c) The Contractor shall state, in all solicitations or advertisements for employees, that in the performance of this contract all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

The Contractor shall include the provisions of (a), (b) and (c) above in every subcontract over \$25,000 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon except where such work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract; or (ii) employment outside New York State. The Authority will consider compliance by a Contractor or its subcontractor with the requirements of any Federal law concerning equal employment opportunity which effectuates the purpose of this section. The Authority shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such Federal law, and if such duplication or conflict exists, the Authority may waive the applicability of §312 of the Executive Law to the extent of such duplication or conflict. The Contractor shall comply with all duly promulgated and lawful rules and regulations of the Department of Economic Development's Division of Minority and Women's Business Development pertaining thereto.

12. CONFLICTING TERMS. In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix A, the terms of this Appendix A shall control.

13. GOVERNING LAW. This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

14. LATE PAYMENT. Timeliness of payment and any interest to be paid to the Contractor for late payment shall be governed by State Public Authorities Law §2880 and 21 NYCRR Part 109.

15. NO ARBITRATION. Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized) but must, instead, be heard in a court of competent jurisdiction of the State of New York.

16. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law & Rules, the Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon the Contractor's actual receipt of process or upon the Authority's receipt of the return thereof by the United States Postal Service as refused or undeliverable. The Contractor must promptly notify the Authority, in writing, of each and every change of address to which service of process can be made. Service by the Authority to the last known address shall be sufficient. The Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

17. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this contract will be in accordance with, but not limited to, the specifications and provisions of State Finance Law §165 (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State or any governmental agency or political subdivision or public benefit corporation. Qualification for an exemption under this law will be the responsibility of the Contractor to establish to meet with the approval of the Authority.

In addition, when any portion of this contract involving the use of woods, whether supply or installation, is to be performed by any subcontractor, the prime Contractor will indicate and certify in the submitted bid proposal that the subcontractor has been informed and is in compliance with specifications and provisions regarding use of tropical hardwoods as detailed in State Finance Law §165. Any such use must meet with the approval of the Authority; otherwise, the bid may not be considered responsive. Under bidder certifications, proof of qualification for exemption will be the responsibility of the Contractor to meet with the approval of the Authority.

18. MACBRIDE FAIR EMPLOYMENT PRINCIPLES. In accordance with the MacBride Fair Employment Principles (Chapter 807 of the Laws of 1992), the Contractor hereby stipulates that the Contractor either (a) has no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in State Finance Law §165), and shall permit independent monitoring of compliance with such principles.

19. OMNIBUS PROCUREMENT ACT OF 1992. It is the policy of New York State to maximize opportunities for the

participation of New York State business enterprises, including minority and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

NYS Department of Economic Development
 Division for Small Business
 30 South Pearl Street – 7th Floor
 Albany, NY 12245
 Phone: (518) 292-5220
 Fax: (518) 292-5884
<http://www.esd.ny.gov>

A directory of certified minority and women-owned business enterprises is available from:

NYS Department of Economic Development Minority and Women's Business Development Division
 30 South Pearl Street – 2nd Floor
 Albany, NY 12245
 Phone: (518) 292-5250
 Fax: (518) 292-5803
<http://www.esd.ny.gov>

The Omnibus Procurement Act of 1992 requires that by signing this bid proposal or contract, as applicable, the Contractor certifies that whenever the total bid amount is greater than \$1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the Authority;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the NYS Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the Authority upon request; and

(d) The Contractor acknowledges notice that the Authority may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the Authority in these efforts.

20. RECIPROCITY AND SANCTIONS PROVISIONS. Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or

political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapters 684 and 383, respectively) require that they be denied contracts which they would otherwise obtain. Contact the Department of Economic Development, Division for Small Business, 30 South Pearl Street, Albany, New York 12245, for a current list of jurisdictions subject to this provision. NOTE: As of October 2019, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii.

21. NON-PUBLIC PERSONAL INFORMATION. The Contractor shall comply with the provisions of the New York State Information Security Breach and Notification Act (General Business Law §899-aa; State Technology Law §208). In addition to any relief or damages that may be imposed pursuant to the provisions of this Act, the Contractor shall be liable for the costs imposed upon the Authority which are associated with breach of the Act if caused by Contractor's negligent or willful acts or omissions, or the negligent or willful acts or omissions of the Contractor's agents, officers, employees or subcontractors.

22. IRAN DIVESTMENT ACT. In accordance with State Public Authorities Law §2879-c, if this is a contract for work or services performed or to be performed, or goods sold or to be sold, the Contractor subscribes and affirms, under penalty of perjury, that: by signing this contract, each person and each person signing on behalf of any other party certifies, and in the case of a joint bid or partnership each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each person is not on the list created pursuant to paragraph (b) of subdivision 3 of §165-a of the State Finance Law, entitled "Entities Determined to be Non-Responsive Bidders/Offerers pursuant to the New York State Iran Divestment Act of 2012" ("Prohibited Entities List") posted at: <https://ogs.ny.gov/list-entities-determined-be-non-responsive-biddersofferers-pursuant-nys-iran-divestment-act-2012>.

For the purposes of this clause, the term "person" shall be as defined in subdivision (1)(e) of §165-a of the State Finance Law.

Contractor further certifies that it will not utilize on this contract any subcontractor that is identified on the Prohibited Entities List. Contractor agrees that should it seek to renew or extend this contract, it must provide the same certification at the time the contract is renewed or extended. Contractor also agrees that any proposed Assignee of this contract will be required to certify that it is not on the Prohibited Entities List before the contract assignment will be approved by the Authority.

During the term of the contract, should the Authority receive information that a person (as defined in State Finance Law § 165-a) is in violation of the above-referenced certifications, the Authority will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment activity which is in violation of the Act within 90 days after the determination of such violation, then the Authority shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

23. OBSERVANCE OF LAWS. The Contractor agrees to observe all applicable Federal, State and local laws and regulations, and to procure all necessary licenses and permits.

24. NO WAIVER OF PROVISIONS. The Authority's failure to exercise or delay in exercising any right or remedy under this contract shall not constitute a waiver of such right or remedy or any other right or remedy set forth therein. No waiver by the Authority of any right or remedy under this contract shall be effective unless made in a writing duly executed by an authorized officer of the Authority, and such waiver shall be limited to the specific instance so written and shall not constitute a waiver of such right or remedy in the future or of any other right or remedy under this contract.

25. ENTIRE AGREEMENT. This contract, together with this Appendix A and any other appendices, attachments, schedules or exhibits, constitutes the entire understanding between the parties and there are no other oral or extrinsic understandings of any kind between the parties. This contract may not be changed or modified in any manner except by a subsequent writing, duly executed by the parties thereto.

26. ADMISSIBILITY OF REPRODUCTION OF CONTRACT. Notwithstanding the best evidence rule or any other legal principle or rule of evidence to the contrary, the Contractor acknowledges and agrees that it waives any and all objections to the admissibility into evidence at any court proceeding or to the use at any examination before trial of an electronic reproduction of this contract, in the form approved by the State Comptroller, if such approval was required, regardless of whether the original of said contract is in existence.

27. CERTIFICATION OF REGISTRATION TO COLLECT SALES AND COMPENSATING USE TAX BY CERTAIN STATE CONTRACTORS, AFFILIATES AND SUBCONTRACTORS. To the extent this agreement is a contract as defined by Tax Law § 5-a, if the Contractor fails to make the certification required by Tax Law § 5-a or if during the term of the contract, the Department of Taxation and Finance or the Authority, as defined by Tax Law § 5-a, discovers that the certification, made under penalty of perjury, is false, then such failure to file or false certification shall be a

material breach of this contract and this contract may be terminated, by providing written notification to the Contractor in accordance with the terms of the agreement, if the Authority determines that such action is in the best interest of the Authority.

28. CONTRACT INVOLVING STEEL PRODUCTS. Contracts involving steel products are subject to Public Authorities Law § 2603-a, and steel products to be provided or incorporated by Contractor must be produced or made in whole or substantial part in the United States as set forth therein.