

William Wenzel, Town Supervisor
Jennifer Howe, Town Clerk
Brandy Fall, Deputy Town Clerk



John D. Ganther, Jr., Council Member
Francis R. Potter, Council Member
Dianne Grant, Council Member
Andrew Lucks, Council Member

5853 Western Turnpike
Duanesburg, New York 12056

Town of Duanesburg

Schenectady County

P# 518-895-8920
F# 518-895-8171

Thursday, January 27, 2022

Join Zoom Meeting

<https://us02web.zoom.us/j/88347914369>

Meeting ID: 883 4791 4369

Passcode: 202021

By phone - audio only:

(646) 558-8656

Meeting ID: 883 4791 4369

Passcode: 202021

Town Board Meeting Agenda

Meeting Time: 7:00PM

Call to order

Pledge of Allegiance

Prayer/Moment of Reflection

Approval of minutes for: Regular Town Board Meeting January 13, 2022

Payment of Claims

Committee Reports

Highway

Public Safety

Park

Sewer Districts #1, 2 & 3

IT

Business Meeting:

- 1. Motion to authorize the Town Supervisor to enter into an agreement with Gallagher Bassett to provide the services outlined in the proposal.**

PLEASE NOTE: AGENDA ITEMS MAY BE ADDED OR DELETED WITHOUT NOTICE

- 2. Motion to approve the continuation of the contract with H2H Geoscience Engineering for the purpose of monitoring the closed Town Landfill.**
- 3. Motion to extend the temporary moratorium on solar facilities as set forth in local law 2 of 2021 for an additional 6 months.**
- 4. Motion to approve and authorize the Town Supervisor to execute the DVAC contract.**
- 5. Motion to seek bids for the Mariaville Wastewater Treatment Plan UV Disinfection Project.**
- 6. Motion to adopt the Procurement Policy with the names updated to current.**
- 7. Motion to reappoint John Buehler to the Board of Assessment Review for a term ending September 30, 2026.**

Privilege of the Floor:

Comments are limited to 5 minutes per person. Be respectful. Address the entire Town Board. Individual members are not to be singled out. Speak of issues related to Town business. There will be no tolerance for personal attacks on Board Members. The board reserves the right to ask that your question be put in writing and to be submitted to the Town Clerk to then be distributed to the Town Board. Questions will be answered in a timely manner and mailed to the resident.

Town of Duanesburg Town Board

RESOLUTION NO. _____ - 2022

January 27, 2022

WHEREAS, the Town Board has adopted local law 2 of 2021 providing for a temporary moratorium on solar facilities and battery energy storage;

WHEREAS, the Town Board has decided to extend the moratorium for an additional 6 months by resolution as is allowed by the local law (See attached local law 2 of 2021);

WHEREAS, the Town Board requires additional time to evaluate the existing solar law in the Town and to consider changes to the existing solar law;

WHEREAS, the additional time is necessary due to the difficulty of holding public meetings and obtaining public comment during the continuing challenges presented by the Covid pandemic;

NOW, THEREFORE IT BE RESOLVED, that the Town Board hereby extends the temporary moratorium on solar facilities as set forth in local law 2 of 2021 for an additional six months.

By (unanimous/majority) vote of the Town Board of the Town of Duanesburg at its regular meeting of January 27, 2021

William Wenzel, Supervisor

Town Clerk/Deputy Town Clerk

Present:

Absent:

Town Board Members:

William Wenzel	Yea	Nay	Abstain
John Ganther	Yea	Nay	Abstain
Rick Potter	Yea	Nay	Abstain
Andrew Lucks	Yea	Nay	Abstain
Dianne Grant	Yea	Nay	Abstain

Local Law Filing

(Use this form to file a local law with the Secretary of State.)

Text of law should be given as amended. Do not include matter being eliminated and do not use italics or underlining to indicate new matter.

County City Town Village
(Select one.)

of Duanesburg

FILED
STATE RECORDS
OCT 01 2021

DEPARTMENT OF STATE

Local Law No. 2 of the year 2021

A local law entitled the "2021 Temporary Moratorium Law on Major Solar Energy Systems and
(Insert Title)
Battery Energy Storage Systems."

Be it enacted by the Town Board of the
(Name of Legislative Body)

County City Town Village
(Select one.)

of Duanesburg as follows:

see attached

(If additional space is needed, attach pages the same size as this sheet, and number each.)

(Complete the certification in the paragraph that applies to the filing of this local law and strike out that which is not applicable.)

1. (Final adoption by local legislative body only.)

I hereby certify that the local law annexed hereto, designated as local law No. 2 of 2021 of the (County)(City)(Town)(Village) of Duanesburg was duly passed by the Town Board on September 23, 20 21, in accordance with the applicable provisions of law.
(Name of Legislative Body)

2. (Passage by local legislative body with approval, no disapproval or repassage after disapproval by the Elective Chief Executive Officer*.)

I hereby certify that the local law annexed hereto, designated as local law No. _____ of 20____ of the (County)(City)(Town)(Village) of _____ was duly passed by the _____ on _____ 20____, and was (approved)(not approved) (repassed after disapproval) by the _____ and was deemed duly adopted on _____ 20 , in accordance with the applicable provisions of law.
(Name of Legislative Body)
(Elective Chief Executive Officer)*

3. (Final adoption by referendum.)

I hereby certify that the local law annexed hereto, designated as local law No. _____ of 20____ of the (County)(City)(Town)(Village) of _____ was duly passed by the _____ on _____ 20____, and was (approved)(not approved) (repassed after disapproval) by the _____ on _____ 20____.
(Name of Legislative Body)
(Elective Chief Executive Officer)*

Such local law was submitted to the people by reason of a (mandatory)(permissive) referendum, and received the affirmative vote of a majority of the qualified electors voting thereon at the (general)(special)(annual) election held on _____ 20____, in accordance with the applicable provisions of law.

4. (Subject to permissive referendum and final adoption because no valid petition was filed requesting referendum.)

I hereby certify that the local law annexed hereto, designated as local law No. _____ of 20____ of the (County)(City)(Town)(Village) of _____ was duly passed by the _____ on _____ 20____, and was (approved)(not approved) (repassed after disapproval) by the _____ on _____ 20____. Such local law was subject to permissive referendum and no valid petition requesting such referendum was filed as of _____ 20____, in accordance with the applicable provisions of law.
(Name of Legislative Body)
(Elective Chief Executive Officer)*

* Elective Chief Executive Officer means or includes the chief executive officer of a county elected on a county-wide basis or, if there be none, the chairperson of the county legislative body, the mayor of a city or village, or the supervisor of a town where such officer is vested with the power to approve or veto local laws or ordinances.

5. (City local law concerning Charter revision proposed by petition.)

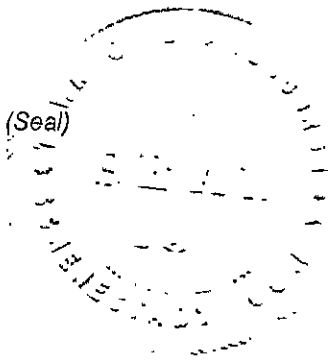
I hereby certify that the local law annexed hereto, designated as local law No. _____ of 20____ of the City of _____ having been submitted to referendum pursuant to the provisions of section (36)(37) of the Municipal Home Rule Law, and having received the affirmative vote of a majority of the qualified electors of such city voting thereon at the (special)(general) election held on _____ 20____, became operative.

6. (County local law concerning adoption of Charter.)

I hereby certify that the local law annexed hereto, designated as local law No. _____ of 20____ of the County of _____ State of New York, having been submitted to the electors at the General Election of November _____ 20____, pursuant to subdivisions 5 and 7 of section 33 of the Municipal Home Rule Law, and having received the affirmative vote of a majority of the qualified electors of the cities of said county as a unit and a majority of the qualified electors of the towns of said county considered as a unit voting at said general election, became operative.

(If any other authorized form of final adoption has been followed, please provide an appropriate certification.)

I further certify that I have compared the preceding local law with the original on file in this office and that the same is a correct transcript therefrom and of the whole of such original local law, and was finally adopted in the manner indicated in paragraph _____ above.



Clerk of the county legislative body, City, Town or Village Clerk or officer designated by local legislative body

Date: September 23, 2021

Town of Duanesburg

Local Law No. 2 of the year 2021

A local law enacting a temporary moratorium on Major Solar Energy Systems Authorized under Local Law 1 of the year 2016 and on Battery Energy Storage Systems

Be it enacted by the Town Board of the Town of Duanesburg as follows:

SECTION I.
SHORT TITLE

This local law shall be cited as Local Law # 2 of 2021 of the Town of Duanesburg and is entitled the “2021 Temporary Moratorium Law on Major Solar Energy Systems and Battery Energy Storage Systems.”

SECTION II.
LEGISLATIVE FINDINGS

The Town Board seeks to carefully review the Town Comprehensive Plan Update, the Town Zoning Ordinance and Local Laws, particularly Local Law #1 of 2016 which allows the establishment of Major Solar Energy Systems in the Town of Duanesburg. The Town has approved several of these Major Solar Energy Systems and believes that the Town of Duanesburg Zoning Code and Local Law #1 of 2016 should be evaluated in light of the Planning Board and Zoning Board experience in reviewing these projects and to protect and promote the public health, welfare and safety within the Town of Duanesburg. This moratorium also expressly applies to Battery Energy Storage Systems which may be proposed as part of a Major Solar Energy System or as a stand-alone facility. This moratorium is necessary in order to temporarily prohibit the establishment of additional Major Solar Energy Systems or Battery Energy Storage Systems in the Town to preserve the status quo while affording the Town Board sufficient time to evaluate and to amend the Town Zoning Ordinance and Local Law #1 of 2016, or to adopt new laws relating to Major Solar Energy Systems and Battery Energy Storage Systems.

SECTION III.
AUTHORITY

This moratorium is enacted by the Town Board of the Town of Duanesburg pursuant to its authority to adopt local laws under Article IX of the New York State Constitution and Municipal Home Rule Law Section 10.

**SECTION IV.
MORATORIUM**

- (A) For a period of six (6) months from the effective date of this Local Law, no applications shall be accepted or considered by the Planning Board of the Town of Duanesburg for Major Solar Energy Systems as that term is defined in Local Law No. 1 of 2016 or for Battery Energy Storage Systems, defined as one or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time, not to include a stand-alone 12-volt car battery or an electric motor vehicle. A battery energy storage system is classified as a Tier 1 or Tier 2 Battery Energy Storage System as follows: A. Tier 1 Battery Energy Storage Systems have an aggregate energy capacity less than or equal to 600kWh and, if in a room or enclosed area, consist of only a single energy storage system technology. B. Tier 2 Battery Energy Storage Systems have an aggregate energy capacity greater than 600kWh or are comprised of more than one storage battery technology in a room or enclosed area. Such Tier 1 or Tier 2 Battery Energy Storage Systems, whether as part of such Major Solar Energy System or stand-alone.
- (B) This moratorium may be extended by one (1) additional period of up to six (6) months by resolution of the Town Board upon a finding of the necessity for such extension.

**SECTION V.
EXEMPTIONS TO MORATORIUM**

The foregoing restriction shall not apply to the Major Solar Energy Systems approved by the Town Planning Board: (A) Onyx on Alexander Road, which has been constructed and which is under operation; and (B) the two Oak Hill Solar Projects proposed by Eden Renewables which have been approved by the Town Planning Board, for which amended approvals are currently being sought relative to the Major Solar Energy Systems and Battery Energy Storage Systems and which have not commenced construction. This moratorium does not apply to these listed projects or to any further Town Board, Planning Board, Zoning Board of Appeals or administrative action on these projects.

**SECTION VI.
VARIANCES.**

The Town Board shall have the authority, after a public hearing, to vary or modify the application of any provision of this Local Law upon its determination that strict application of this Local Law would impose practical difficulties or extraordinary hardships upon an applicant and that the variance granted would not adversely affect the health, safety or welfare of the citizens of the Town or significantly conflict with the general purpose and intent of this Local Law. Any request for a variance shall be in writing and filed with the Town Clerk and shall include a fee of Two Hundred Fifty Dollars (\$250.00) for the processing of such application. All such applications shall promptly be referred to the Town Board, which shall conduct a Public Hearing on the application on not less than five (5) days public notice and shall make its decision within thirty (30) days after the close of the Public Hearing.

SECTION VII.
SEVERABILITY

The invalidity of any word, section, clause, paragraph, sentence, part or provision of this Local Law shall not affect the validity of any other part of this Local Law which can be given effect without such invalid part or parts.

SECTION VIII.
REPEAL OF OTHER LAWS

All local laws in conflict with provisions of this Local Law are hereby superseded and suspended for the duration of this moratorium and for any additional period that this Local Law is extended. This Local Law also supersedes, amends and takes precedence over any inconsistent provisions of New York State Town Law, the Town's Municipal Home Rule powers, pursuant to Municipal Home Rule Law Sections 10 and 22. The Town Law provisions intended to be superseded include all of the Article 16 of the Town Law, Sections 261-285 inclusive and any other provision of law that the Town may supersede pursuant to the Municipal Home Rule Law and the Constitution of the State of New York. The courts are directed to take notice of this legislative intent and to apply such intent in the event the Town has failed to specify any provisions of law that may require supersession. The Town Board hereby declares that it would have enacted this local law and superseded such inconsistent provision had it been apparent.

SECTION IX.
EFFECTIVE DATE

This Local Law shall take effect immediately, as provided by law, upon filing with the New York State Secretary of State.

Town of Duanesburg Town Board

RESOLUTION NO. _____ - 2022

January 27, 2022

WHEREAS, the Town of Duanesburg is required by the NYS Department of Environmental Conservation to monitor the closed Town landfill;

WHEREAS, H2H Geoscience Engineering PLLC has conducted the monitoring at the closed landfill on the Town's behalf and has submitted the test results and reports to the NYS Department of Environmental Conservation;

WHEREAS, H2H Geoscience Engineering PLLC has provided the attached contract and certificate of insurance in order to undertake the monitoring and the submission of the reports;

NOW THEREFORE BE IT RESOLVED, that the Town of Duanesburg Town Board approves the contract for the performance of professional services attached as Exhibit A and authorizes the Town Supervisor to sign the contract.

By (unanimous/majority) vote of the Town Board of the Town of Duanesburg at its regular meeting of January 27, 2021

William Wenzel, Supervisor

Town Clerk/Deputy Town Clerk

Present:

Absent:

Town Board Members:

William Wenzel	Yea	Nay	Abstain
John Ganther	Yea	Nay	Abstain
Rick Potter	Yea	Nay	Abstain
Andrew Lucks	Yea	Nay	Abstain
Dianne Grant	Yea	Nay	Abstain



179 River Street, Troy, New York 12180

Geologic Consultants
Environmental Professionals
Construction Services

Phone: (518) 270-1620/Fax: (518) 270-1672

AGREEMENT FOR THE PERFORMANCE OF PROFESSIONAL SERVICES

Effective Date of Agreement: 1/20/2022

Consultant: **H2H Geoscience Engineering PLLC**

Client: **Town of Duanesburg**

Project: **Landfill Monitoring for 2022**

WHEREAS, **H2H Geoscience Engineering PLLC (H2H)** has been retained by the **Town of Duanesburg**, hereinafter referred to as the "Client", to provide consulting services for the Project and,

WITNESSETH, that in consideration of the mutual covenants hereinafter set forth the Client and H2H herein before named, do hereby agree as follows:

SECTION 1 - BASIC SERVICES

1.1 H2H agrees to perform professional services described in Attachment 1, which is attached hereto and made a part hereof.

1.2 H2H will give consultation and advice to the Client during the performance of its services.

1.3 Additional Services of H2H:

- a. Additional Services of H2H are those resulting from changes in the Basic Services, extent or character of the Project or its design, including, but not limited to, changes in size, complexity, H2H's schedule, character of construction or method of financing; and the revision of previously accepted studies, reports, design documents or contract documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes or orders enacted subsequent to the preparation of such studies, reports or documents, or are due to any other causes beyond H2H's control.
- b. Additional Services as are mutually agreed upon between H2H and the Client shall be incorporated into this Agreement by written Amendment signed by both Parties. Any such Amendment shall identify the change or additional services and any modification in the Subconsultant's Payment for Services, Method of Payment or period of Service.

SECTION 2 - THE CLIENT'S RESPONSIBILITIES

2.1 Provide general direction to H2H as to the priority and scheduling of items of work to be performed by him or her.

2.2 Review all studies, reports, sketches, estimates, specifications, drawings, proposals, and other documents presented by H2H and shall render in writing, decisions pertaining thereto within a mutually acceptable time frame so as not to delay H2H.

2.3 Designate in writing a person to act as the Client's representative with respect to the work to be performed under the Agreement; and such person shall have the authority to transmit instructions, receive

information, provide all criteria and full information as to H2H's requirements for the services to be provided and interpret and define the Client's policies and decision.

2.4 Give prompt written notice to H2H whenever the Client observes or otherwise becomes aware of any deviation in the Project requirements due to H2H's work.

2.5 Negotiate with H2H a Supplemental Agreement, in the event that additional services other than those set forth in Attachment 1 are required of H2H which will set forth the scope of said additional services and the method of compensation.

SECTION 3 - COMPLETION TIME

3.1 H2H will commence work on the Project upon the effective date of this Agreement or upon written instructions from the Client setting forth a different starting date.

SECTION 4 - COMPENSATION AND BASIS FOR PAYMENT

4.1 The Client shall pay H2H for all Basic Services performed in accordance with the charges set forth in the attached Proposal.

4.2 Invoices for partial payment will be submitted monthly to the Client by H2H for work performed during said month. If an invoice remains outstanding for more than forty-five days, Consultant may provide written demand for payment to Client, demanding payment to be made within fifteen days. If payment is not made by Client within such fifteen days, Consultant may terminate this Agreement and sue for damages.

4.3 The compensation set forth in Attachment 1 shall constitute complete payment for all work and services required to be performed, for all expenditures made and expenses incurred. Additional services will be billed at rates set forth in Exhibit I.

4.4 If this Agreement is terminated during any phase of the work, H2H shall be paid for services performed up to the date of termination.

SECTION 5 - RESPONSIBILITIES OF H2H ASSOCIATES

5.1 H2H shall perform the Basic Services in a manner consistent with that level of care and skill ordinarily exercised by others under similar circumstances at the time the Basic Services are performed. For the purpose of this Agreement the aforementioned level of care and skill shall be referred to as "Standard of Professional Responsibility". H2H shall furnish skilled personnel and equipment to properly carry out this work to the standards required by the Client.

5.2 If the work to be performed by H2H is of a professional nature, the work shall be performed under the direct supervision of a licensed professional, registered in the State of New York, and said work shall be certified by him or her as required by law.

SECTION 6 - TERMINATION

6.1 The Client may terminate this Agreement if H2H has materially failed to comply with terms of this Agreement after fifteen days written notice of default. Compensation shall be made pursuant to Section 4 of the Agreement for work actually performed, completed and approved by H2H.

SECTION 7 - INSURANCE

7.1 H2H maintains Worker Compensation Insurance with respect to its employees with statutory required limits. H2H also maintains Automobile Liability insurance and General and Professional Liability insurance. Certificates of insurance evidencing such coverage will be provided to Client upon request (**Exhibit 2**). Client shall be responsible for all other forms of property, casualty and liability insurance coverage required for the project.

SECTION 8 - SUCCESSORS AND ASSIGNS

8.1 H2H and Client each is hereby bound and the partners, successors, executors, administrators and legal representatives of H2H and Client, and to the extent permitted pursuant to paragraph 8.2 the assigns of H2H and Client are hereby bound to the other party to this Agreement and to the partners, successors, executors, administrators and legal representatives and said assigns of such other party, in respect of all covenants, agreements and obligations of the Agreement.

8.2 Neither H2H nor Client shall assign, sublet or transfer any rights under or interest in this Agreement, including but without limitation, monies that may become due or monies that are due, without the written consent of the other, except to the extent that any assignment, subletting or transfer is mandated by law or the effect of the limitation is restricted by law. Unless specifically stated to the contrary in any written consent to any assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

8.3 Nothing under this Agreement shall be construed to give any rights or benefits in this Agreement to anyone other than H2H and Client, and all duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of H2H and Client and not for the benefit of any other party.

SECTION 9 - INDEMNIFICATION

9.1 H2H agrees to defend, indemnify, protect and save harmless the Client and its employees, agents and servants from and against all suits, claims, demands, or damages of whatsoever kind or nature, but only to the extent they are the result of H2H's negligent acts, errors or omissions or failure to perform any or all services pursuant to this Agreement, in a manner consistent with the Standard of Professional Responsibility as defined in Section 5.1 hereof. Such indemnification shall include, but is not limited to, reasonable expenditures for and costs of investigations, hiring of expert witnesses, court costs, counsel fees, settlements, judgements or otherwise (collectively "Losses"), provided that H2H has been notified of the claim or suit in question and has been afforded the opportunity to defend such portion as is covered by this indemnification.

SECTION 10 - OWNERSHIP AND PREPARATIO DOCUMENTS

10.1 All documents prepared or furnished by H2H pursuant to this Agreement are instruments of service and the Client shall retain ownership and a property interest therein only upon payment for services. H2H may make and retain copies for information and reference. Such documents are not intended or represented to be suitable for reuse by the Client or others on any extension of this project or on any other project, other than the project which is the subject of this Agreement. Any reuse without written verification or adaptation by H2H will be at the Client's own sole risk and without liability or legal exposure to H2H, and the Client shall indemnify and hold harmless H2H from all claims, damages, losses and expenses including attorney's fees arising out of or resulting there from. Any such verification or adaptation will entitle H2H to further compensation at rates to be agreed upon by the Client and H2H.

SECTION 11 - RIGHT OF ENTRY

11.1 Consultant will seek permission, from the Client and any other person or entity, to enter from time to time upon the project site or any other real property which may be necessary to perform the services referred to in Section 1.

11.2 H2H shall be responsible for any violation or damages which result from H2H's failure to obtain proper right of entry.

11.3 H2H agrees to indemnify and hold harmless the Client and its employees, agents and servants, pursuant to Section 9 of this agreement, for failure to obtain proper right of entry.

SECTION 12 - SEVERABILITY

12.1 This Agreement embodies the entire agreement between the parties. If any provision herein is held invalid, it shall be considered deleted here from and shall not invalidate the remaining provisions hereof.

SECTION 13 - CONTROLLING LAW


13.1 This Agreement is to be governed by the laws of the State of New York.

SECTION 14 - UNDERSTANDING

14.1 The Agreement represents the understanding between H2H and Client and supersedes all prior or oral understandings.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed the 20 day of January 2022, to be effective as of the day and year first above written.

H2H Geoscience Engineering PLLC


Principal

Client Representative

Attachment 1 – Basic Services (proposal)
Exhibit 1 – Schedule of Fees
Exhibit 2 – Certificate of Insurance

ATTACHMENT 1 – BASIC SERVICES



179 River Street, Troy, New York 12180

Phone: (518) 270-1620/Fax: (518) 270-1672

*Geologic Consultants
Environmental Professionals
Construction Services*

January 10, 2021

Roger Tidball, Supervisor
Town of Duanesburg
Town Hall
5853 Western Turnpike
Duanesburg, New York 12056

via E-Mail: RTidball@nycap.rr.com

**RE: Landfill Monitoring & Inspection Proposal for 2022
Town of Duanesburg Landfill (Closed) - Depot Road**

Dear Roger:

H2H Geoscience Engineering PLLC (H2H) proposes to continue performing the quarterly landfill inspections and monitoring in 2022 in accordance with the previously agreed upon services, terms, and conditions. This includes quarterly sampling of the seep and groundwater and landfill inspections. For three of the quarters the seep samples are analyzed for ammonia and iron, and the groundwater samples for routine DEC Part 360 parameters. Once a year the seep and groundwater samples are analyzed for the more comprehensive DEC baseline parameters. We collect two leachate samples for analysis of DEC expanded parameters when we do the baseline analyses. Reporting is quarterly. We now also include an analytical summary table for the leachate that DEC had requested last year.

The cost estimate for 2022 is **22,500**. This includes all laboratory analytical costs. If this proposal is acceptable, we will plan the 2022 services for a routine sampling event first quarter 2022. We rotate the once-per-year more comprehensive annual baseline sampling. If you agree with the terms and scope of this proposal, please send me an email to confirm.

H2H appreciates the opportunity and looks forward to continue working with you. If you have any questions regarding this proposal, or require additional information, feel free to contact me at 270-1620, extension 114.

Kindest Regards,

H2H Geoscience Engineering PLLC

A handwritten signature in black ink that reads "William Oakes".

William Oakes
Project Manager

Copy: Dale Warner
Richard Hisert, Ph.D., Principal, H2H Associates, LLC

FEE SCHEDULE

H2H Geoscience Engineering, PLLC

179 River Street, Troy, NY 12180

Geologic Consultants
Environmental Professionals
Construction Services

(518) 270-1620/Fax (518) 270-1672

BILLING RATES

H2H GEOSCIENCE ENGINEERING, PLLC		
Billing Classification	Hourly USD	
	2021 Billing Rate	
Principal	\$	185.00
Senior Geologist	\$	155.00
Senior Engineer	\$	155.00
Senior Scientist	\$	120.00
Project Engineer	\$	95.00
Project Scientist/Geologist	\$	90.00
Engineering Technician	\$	85.00
Construction Inspector	\$	95.00
Surveyor/UAS Operator	\$	85.00
Survey Crew	\$	185.00
Marine Survey Capt.	\$	155.00
Administrative	\$	70.00
<u>Instrument & Software Rates</u>		
UAS - Drone	\$1,500/day	
Dynascan Mobile Laser Scanner	\$1,500/day	\$3500/wk
Total Station-Laser Scanning	\$250-\$800/day	\$600 to \$2,500/wk
Multibeam Survey Vessel	\$5,000/day	\$20,000/week
GemcomSURPAC	\$2,000/month	
Mileage	GSA rate	
	All subcontracted costs marked up 10%	



CERTIFICATE OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

10/20/2021

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

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

PRODUCER The Murray Group Insurance Services Inc. 1807 Western Ave. Albany, NY 12203-4631 James H. Murray	CONTACT NAME: Cathy OKeefe	FAX (A/C, No): 518-456-1605
	PHONE (A/C, No, Ext): 518-456-6688	E-MAIL ADDRESS: cathy@murraygrp.com
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A : Great Divide Insurance		25224
INSURER B : Utica National Insurance Group		10687
INSURER C : Liberty Mutual Insurance		24198
INSURER D :		
INSURER E :		
INSURER F :		

INSURED **H2H Geoscience Engineering PLLC**
179 River Street
Troy, NY 12180

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

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

INSR LTR	TYPE OF INSURANCE	ADD'L SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJ <input type="checkbox"/> LOC	Y	ECP2025264-13	01/23/2021	01/23/2022	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$	
B	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		5074134	10/26/2021	10/26/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (PER ACCIDENT) \$ \$	
A	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$		FFX2025265-13	01/23/2021	01/23/2022	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000 \$	
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	5034414	05/15/2021	05/15/2022	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
A	Professional Liab		ECP2025264-13	01/23/2021	01/23/2022	Liability 1,000,000	
A	Pollution Liab		ECP2025264-13	01/23/2021	01/23/2022	Liability 1,000,000	


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

Subject to all policy terms, limitations, conditions and definitions
Re: Goshen Quarry water well groundwater monitoring project

Tilcon New York and Matt Comas are named as additional insured when required by written contract

CERTIFICATE HOLDER

CANCELLATION

Tilcon New York Matt Comas 9 Quarry Road Goshen, NY 10924	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 



179 River Street, Troy, New York 12180

Phone: (518) 270-1620/Fax: (518) 270-1672

*Geologic Consultants
Environmental Professionals
Construction Services*

January 10, 2021

Roger Tidball, Supervisor
Town of Duanesburg
Town Hall
5853 Western Turnpike
Duanesburg, New York 12056

via E-Mail: RTidball@nycap.rr.com

**RE: Landfill Monitoring & Inspection Proposal for 2022
Town of Duanesburg Landfill (Closed) - Depot Road**

Dear Roger:

H2H Geoscience Engineering PLLC (H2H) proposes to continue performing the quarterly landfill inspections and monitoring in 2022 in accordance with the previously agreed upon services, terms, and conditions. This includes quarterly sampling of the seep and groundwater and landfill inspections. For three of the quarters the seep samples are analyzed for ammonia and iron, and the groundwater samples for routine DEC Part 360 parameters. Once a year the seep and groundwater samples are analyzed for the more comprehensive DEC baseline parameters. We collect two leachate samples for analysis of DEC expanded parameters when we do the baseline analyses. Reporting is quarterly. We now also include an analytical summary table for the leachate that DEC had requested last year.

The cost estimate for 2022 is **22,500**. This includes all laboratory analytical costs. If this proposal is acceptable, we will plan the 2022 services for a routine sampling event first quarter 2022. We rotate the once-per-year more comprehensive annual baseline sampling. If you agree with the terms and scope of this proposal, please send me an email to confirm.

H2H appreciates the opportunity and looks forward to continue working with you. If you have any questions regarding this proposal, or require additional information, feel free to contact me at 270-1620, extension 114.

Kindest Regards,

H2H Geoscience Engineering PLLC

A handwritten signature in black ink that reads 'William Oakes'.

William Oakes
Project Manager

Copy: Dale Warner
Richard Hisert, Ph.D., Principal, H2H Associates, LLC

RESOLUTION OF THE TOWN BOARD

RESOLUTION NO. -2022

January 27, 2022

Whereas, the Town Supervisor has obtained the attached proposal from Gallagher Bassett to undertake an appraisal of Town Properties;

Whereas, the Town Board has reviewed the proposal and agrees that obtaining an appraisal of the value of the Town properties will allow the Town Board to ensure that Town properties are appropriately insured, among other public purposes;

Now therefore be it resolved, that the Town Board hereby approves the proposal, authorizes the expenditure of funds for this purpose and authorizes the Town Supervisor to enter into an agreement with Gallagher Bassett to provide the services as outlined in the proposal, dated November 11, 2021.

By (unanimous/majority) vote of the Town Board of the Town of Duanesburg at its regular meeting of January 27, 2022.

William Wenzel, Supervisor

Town Clerk/Deputy Town Clerk

Date

Date

Present:

Absent:

Town Board Members:

William Wenzel	Yea	Nay	Abstain
John Ganther Jr.	Yea	Nay	Abstain
Francis R. Potter	Yea	Nay	Abstain
Dianne Grant	Yea	Nay	Abstain
Andrew Lucks	Yea	Nay	Abstain

SCHEDULE OF LOCATIONS

Policy Effective Date: JANUARY 24, 2021		Schedule Effective Date: JANUARY 24, 2021	
Prem. No.	Location	Bldg. No.	Occupancy and Construction
1	5853 WESTERN TPKE DUANESBURG, NY 12056	1	TOWN HALL FRAME
2	5850 WESTERN TPKE DUANESBURG, NY 12056	1	HIGHWAY GARAGE NON-COMBUS
3	COLE ROAD DUANESBURG, NY 12056	1	SEWER PLANT JOIST MASN
3	COLE ROAD DELANSON, NY 12053	2	SEWER PLANT JOIST MASN
4	ROUTE 7 DELANSON, NY 12053	1	PUMP STATION JOIST MASN
5	SHORE RD DELANSON, NY 12053	1	PUMP STATION JOIST MASN
6	ALL OWNED LOCATIONS OF THE TOWN OF DUANESBURG PATTERSONVILLE, NY 12137	1	VARIOUS
7	10101 MARIAVILLE RD PATTERSONVILLE, NY 12137	1 2 3	FILTER BUILDING JOIST MASN BLOWER BLDNG JOIST MASN TREATMENT BLDNG JOIST MASN
8	ISLAND DR PATTERSONVILLE, NY 12137	1	PUMP STATION JOIST MASN
9	HILLTOP DR PATTERSONVILLE, NY 12137	1	PUMP STATION JOIST MASN
10	SPRING ROAD PATTERSONVILLE, NY 12137	1	PUMP STATION JOIST MASN
11	S SHORE 1 PATTERSONVILLE, NY 12137	1	PUMP STATION JOIST MASN
12	S SHORE 2 PATTERSONVILLE, NY 12137	1	PUMP STATION JOIST MASN
13	ROUTE 159 DELANSON, NY 12053	1	MAIN PUMP JOIST MASN
14	ROUTE 7 & CHADWICK RD DUANESBURG, NY 12056	1 2 3 4	SHAFER PARK FRAME SHAFER PARK FRAME SHAFER PARK NON-COMBUS STORAGE JOIST MASN
15	DEPOT ROAD MARIAVILLE, NY 12137	1 2 3 4	STORAGE FRAME STORAGE FRAME STORAGE FRAME TANKS NON-COMBUS
16	7073 DUANESBURG RD DUANESBURG, NY 12056	1	PUMP STATION NON-COMBUS

Previous Policy Number
S 1676713

Policy Number
S 1676713

COMMERCIAL PROPERTY COVERAGE DECLARATION

Policy Effective Date: JANUARY 24, 2021 | Coverage Effective Date: JANUARY 24, 2021

Insurance is provided only for those coverages for which a specific limit is shown in the following coverage schedule

Coverage — Scheduled Locations								
Prem. No.	Bldg. No.	Coverage	Limit of Insurance	Covered Cause of Loss	Coins	Deductible	Valuation	Inflation Guard

Coverage — Blanket Locations									
Prem. No.	Bldg. No.	Coverage	Rating Value	Covered Cause of Loss	Coins	Deductible	Valuation	Inflation Guard	Blanket ID #
001	001	BUILDING	\$1,252,474	SPECIAL	100%	\$1,000	AGRD VAL/RP CST		1
002	001	BUILDING	\$771,259	SPECIAL	100%	\$1,000	AGRD VAL/RP CST		1
003	001	BUILDING	\$2,636,787	SPECIAL	100%	\$1,000	AGRD VAL/RP CST		1
003	002	BUILDING	\$142,386	SPECIAL	100%	\$1,000	AGRD VAL/RP CST		1
004	001	BUILDING	\$75,149	SPECIAL	100%	\$1,000	AGRD VAL/RP CST		1
005	001	BUILDING	\$67,238	SPECIAL	100%	\$1,000	AGRD VAL/RP CST		1
007	001	BUILDING	\$949,244	SPECIAL	100%	\$1,000	AGRD VAL/RP CST		1
007	002	BUILDING	\$369,149	SPECIAL	100%	\$1,000	AGRD VAL/RP CST		1
007	003	BUILDING	\$1,318,394	SPECIAL	100%	\$1,000	AGRD VAL/RP CST		1

CONTINUED ON SCHEDULE: CP-7027

Business Income									
Prem. No.	Bldg. No.	Coverage Type	Limit of Insurance	BI Waiting Period (hrs)	Coins	Monthly Limit of Indemnity	Max Period of Indemnity	Extended Period of Indemnity	Blanket ID #
1	1	BI INCLUDING RV	ACTUAL LOSS	72					
2	1	BI INCLUDING RV	ACTUAL LOSS	72					
3	1	BI INCLUDING RV	ACTUAL LOSS	72					
3	2	BI INCLUDING RV	ACTUAL LOSS	72					
4	1	BI INCLUDING RV	ACTUAL LOSS	72					
5	1	BI INCLUDING RV	ACTUAL LOSS	72					
7	1	BI INCLUDING RV	ACTUAL LOSS	72					
7	2	BI INCLUDING RV	ACTUAL LOSS	72					
7	3	BI INCLUDING RV	ACTUAL LOSS	72					

SEE ATTACHED SCHEDULE: CP-7027

Blanket Coverage		
Blanket ID #	Blanket Group	Total Blanket Limit
BLANKET GROUP 1	FOR BUILDING AND BUSINESS PERS PROP	\$9,246,482

Extra Expense							
Prem. No.	Bldg. No.	Limit of Insurance	Monthly Limitation	Prem. No.	Bldg. No.	Limit	Monthly Limitation

Forms and Endorsements: Refer to "Commercial Policy Forms and Endorsement Schedule"	Premium Amount \$9,417.83 (This premium may be subject to adjustment)
--	---

CP-7026 (06/17)

Coverage Effective Date
 JANUARY 24, 2021

Policy Number
 S 1676713

COMMERCIAL PROPERTY SCHEDULE

Prem. No.	Bldg. No.	Coverage	Coverage ó Blanket Locations				Valuation	Inflation Guard	Blanket ID #
			Rating Value	Covered Cause of Loss	Coins	Deductible			
008	001	BUILDING	\$71,193	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
009	001	BUILDING	\$106,922	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
010	001	BUILDING	\$106,922	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
011	001	BUILDING	\$142,650	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
012	001	BUILDING	\$71,326	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
013	001	BUILDING	\$213,843	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
014	001	BUILDING	\$13,843	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
014	002	BUILDING	\$65,919	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
014	003	BUILDING	\$34,279	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
014	004	BUILDING	\$163,530	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
015	001	BUILDING	\$6,591	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
015	002	BUILDING	\$5,273	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
015	003	BUILDING	\$42,214	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
015	004	BUILDING	\$25,354	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
016	001	BUILDING	\$232,890	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
001	001	BPP INCL STOCK	\$329,598	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
002	001	BPP INCL STOCK	\$13,843	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
003	001	BPP INCL STOCK	\$2,768	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
007	003	BPP INCL STOCK	\$2,768	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
014	004	BPP INCL STOCK	\$6,338	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	
015	003	BPP INCL STOCK	\$6,338	SPECIAL	100%	\$1,000	AGRD VAL/RP CST	1	

TOWN OF DUANESBURG

RESOLUTION NO. -2022

January 27, 2022

WHEREAS, General Municipal Law § 103 and the Town of Duanesburg Procurement Policy authorize the Town of Duanesburg Town Board to seek competitive bids for the purchase of equipment and services; and

WHEREAS, the Town desires to seek bids for the Mariaville Wastewater Treatment Plan UV Disinfection Project (described in more detailed in the attached bid packet).

NOW THEREFORE BE IT RESOLVED, the Town of Duanesburg Town Clerk shall cause the attached public notice to be published in the Daily Gazette at least five (5) days before the sealed bids are publicly opened and read.

By (unanimous/majority) vote of the Town Board of the Town of Duanesburg at its regular meeting of January 27, 2022.

William Wenzel, Supervisor

Town Clerk/Deputy Town Clerk

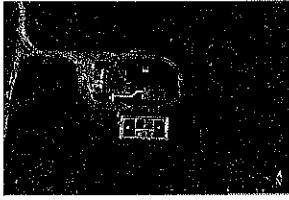
Present:

Absent:

Town Board Members:

William Wenzel	Yea	Nay	Abstain
John Ganther	Yea	Nay	Abstain
Rick Potter	Yea	Nay	Abstain
Adam Lucks	Yea	Nay	Abstain
Dianne Grant	Yea	Nay	Abstain

PROJECT SPECIFICATIONS
VOLUME 1



TOWN OF DUANESBURG, NY

MARIAVILLE WWTP
UV DISINFECTION PROJECT

Contract Numbers:

TD1-G-21 – General

January 18, 2022

SUPERVISOR: Bill Wenzel

Board of Trustees:

John Ganther
Andrew Lucks

Dianne Grant
Rick Potter

Prepared by:
DELAWARE ENGINEERING, D.P.C.
55 South Main Street
Ossining, New York 13820
Phone: (607) 432-8973



Set #

TOWN OF DUANESBURG, NY
MARIAVILLE WWTP / NYS CONTRACT NUMBER # DEC01-C0079900-3350000
ULTRA-VIOLET (UV) DISINFECTION PROJECT
CONTRACT No. TD1-G-21 GENERAL

TOWN OF DUANESBURG, NY
MARIAVILLE WWTP / NYS CONTRACT NUMBER # DEC01-C0079900-3350000
ULTRA-VIOLET (UV) DISINFECTION PROJECT
CONTRACT No. TD1-G-21 GENERAL

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TOWN OF DUNESBURG, NY
 MARIAVILLE WTP / W/S CONTRACT NUMBER # DEC01-C0079902-3350000
 ULTRA-VIOLET (UV) DISINFECTION PROJECT
 CONTRACT No. TD1-G-21 GENERAL
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TOWN OF DUNESBURG, NY
 MARIAVILLE WTP / W/S CONTRACT NUMBER # DEC01-C0079902-3350000
 ULTRA-VIOLET (UV) DISINFECTION PROJECT
 CONTRACT No. TD1-G-21 GENERAL
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General Note in regards to these specifications:
 Items which have a strike through (i.e., ~~strike-through~~) are not applicable to
 this contract. That is, these items are left merely as place holders in the
 document and will not be used for contract administration.

SECTION II

INVITATION FOR BIDS, INSTRUCTIONS TO BIDDERS, AND FORMS

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DELAWARE ENGINEERING, D.P.C.

PAGE 7

[01/18/2022 WR]

DELAWARE ENGINEERING, D.P.C.

PAGE 8

[01/18/2022 WR]

TOWN OF DUANESBURG, NY
MARIAVILLE WWTP / NYS CONTRACT NUMBER # DEC01-C00799GG-3350000
ULTRA-VIOLET (UV) DISINFECTION PROJECT
CONTRACT No. TD1-G-21 GENERAL

INVITATION FOR BIDS

NOTICE IS HEREBY GIVEN, that sealed bids are sought by

THE TOWN OF DUANESBURG, NY

for:

MARIAVILLE WWTP / NYS CONTRACT NUMBER # DEC01-C00799GG-3350000
ULTRA-VIOLET (UV) DISINFECTION PROJECT
CONTRACT No. TD1-G-21-GENERAL

The project entails purchase and installation of a new UV disinfection system and piping modifications to install the UV system

CONTRACT No. TD1-G-21 - GENERAL CONSTRUCTION

Work of the GENERAL CONTRACT (TD1-G-20) generally includes but is not limited to:

- Purchase and installation of new UV disinfection system
- Purchase and Installation of piping with Victaulic connections to; connect plant to UV system and, to connect UV system to plant effluent discharge.
- Required demolition as shown on drawings.
- Purchase, cut in and install gate valve with Victaulic fittings on 6" line.
- Purchase material, make and install concrete floor supports for the new UV system as per drawings and supplier information.
- Electrical and control work to facilitate operation of new UV unit
- Perform startup & training for new equipment
- Work and conference with Plant Operators for uninterrupted wastewater plant operation.
- Furnish and install a project sign.

This project is being funded by the Town of Duaneburg with additional financing provided by WQIP Grant. See exhibit A-1 for additional details.

Contractor to provide MBE Participation valued at minimum \$60,000 in their bid in accordance with funding requirements.

Work to be completed and plant in compliance by March 30, 2023. Bidders are advised that Labor and Material and Performance Bonds, each in the amount of 100% of the contract price, as well as a Certificate of Insurance demonstrating required coverage, shall be provided by the successful bidder. In addition, the successful bidder shall provide a one-year maintenance bond in the amount of 100% of the contract price at completion of the work.

DELAWARE ENGINEERING, D.P.C.

PAGE 9

[01/18/2022 WR]

TOWN OF DUANESBURG, NY
MARIAVILLE WWTP / NYS CONTRACT NUMBER # DEC01-C00799GG-3350000
ULTRA-VIOLET (UV) DISINFECTION PROJECT
CONTRACT No. TD1-G-21 GENERAL

The bidder(s), and /or significant subcontractor(s) shall have the requisite experience to perform the project work. Bidder(s) and subcontractor(s) shall provide a list of similar projects on-going and/or completed over the last ten (10) years with their bid. Those bidders lacking adequate experience will be deemed non-responsive and are encouraged to submit a bid.

Sealed bids will be received by the Town Clerk at the Town Hall, 5853 Western Turnpike, Duaneburg, NY 12056, until _____ at 2:00 P.M., at which time they will be publicly opened and read aloud. The identity of all offerers will be publicly disclosed on the Town Bulletin in Town Hall. Due to the current pandemic, the bid opening will not be open to the public. Interested parties may attend the opening virtually and contact Delaware Engineering for call-in information.

At the bid opening, the Contractor must supply a BID GUARANTEE of five percent (5%) of the TOTAL AMOUNT of the bid submitted. The guarantee may be in the form of a bid bond.

Proposals shall be submitted on bid forms which are contained in the detailed specifications available at www.debiddocuments.com beginning on (enter date). Bid Forms and associated contract documents will only be available from the bidding service.

Contract Documents may be viewed at no expense online beginning on (INSERT DATE HERE) at the following website: www.debiddocuments.com, or at the office of Delaware Engineering, D.P.C., 55 South Main Street, Oneonta, NY, 13820.

Digital copies of the Contract Documents may be obtained online as a download from the website: www.debiddocuments.com.

Complete hardcopy sets of bidding documents may be obtained from REVPlans, 28 Church Street, Unit 7, Warwick, NY 10990, Tel: 1-877-272-0216, upon depositing the sum of \$100 for each complete set of contract documents. Checks or money orders shall be made payable to Delaware Engineering, D.P.C. and shall be non-refundable. Cash deposits will not be accepted. Any Bidder requiring documents to be shipped shall make arrangements with REVPlans and pay for all packaging and shipping costs.

Any Addenda will be emailed from bidding service. Attention is called to the fact that not less than the minimum salaries and wages set forth in the Contract Documents (see Exhibits) must be paid on this project; that the Contractor must insure that employees and applicants for employment are not discriminated against because of their race, creed, color, religion, sex or national origin. The Contractor must also be aware that he must comply with all provisions of the State Wage Rates.

DELAWARE ENGINEERING, D.P.C.

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The Contractors must also be aware that they must comply with the State wage rates under New York State Department of Labor. The higher of the two wage rates shall be selected on a case by case, trade by trade basis. In addition, the Contractor must comply with Labor Law 220, section 220-h, which requires that on all public work projects of at least \$250,000.00, all laborers, workers and mechanics on the site be certified as having successfully completed the OSHA 10-hour construction safety and health course.

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Bids may be held by the Owner for a period not to exceed forty-five (45) calendar days from the date of the openings of Bids for the purpose of reviewing the Bids and investigation of the qualifications of the Bidders and subsequent approval of the Bids and related documents by the owner. The Owner reserves the right to reject any and all Bids or waive any informalities in the Bidding.

Technical questions should be directed to Bill Brown at Delaware Engineering D.P.C.'s Oneonta Office at 55 South Main Street, Oneonta, NY 13820 (607-432-8073 phone, 607-432-0432 fax).

Owner:

Town of Duanesburg
5853 Western Turnpike
Duanesburg, NY 12056
(518)-895-8920 (phone)
(518)-895-8171 (fax)
Contact Person: Dale Warner, Code Enforcement Officer

Owner's Engineer:

Delaware Engineering, D.P.C.
55 South Main Street
Oneonta, NY 13820
607-432-8073 (phone)
607-432-0432 (fax)
Contact Person: Bill Brown, P.E.

INSTRUCTIONS TO BIDDERS

1. USE OF SEPARATE BID FORMS

These Contract Documents include a complete set of Bid and Contract Forms which are for the convenience of Bidders and can be copied and executed.

2. INTERPRETATIONS OR ADDENDA

No oral interpretation will be made to any Bidder as to the meaning of the Contract Documents or any part thereof. Every request for such an interpretation shall be made in writing to the Owner. Any inquiry received seven or more days prior to the date fixed for opening of Bids will be given consideration. Every interpretation made to a Bidder will be in the form of an Addendum to the Contract Documents, and when issued, will be on file in the office of the Owner and the office of the Engineer at least five days before Bids are opened. In addition, all Addenda will be mailed to each person obtaining Contract Documents and whose name and address are on record with the Owner; however, it shall be each Bidder's responsibility to make inquiry as to the Addenda issued and all such Addenda shall become part of the Contract and all Bidders shall be bound by such Addenda, whether or not received by the Bidders.

3. INSPECTION OF SITE

Each Bidder shall visit the site of the proposed work and fully acquaint himself with the existing conditions there relating to the work and labor, and shall fully inform himself as to the facilities involved, the difficulties and restrictions attending the performance of the Contract. The Bidder shall thoroughly examine and familiarize himself with the Drawings, Technical Specifications, and all other Contract Documents. The Contractor by the execution of the Contract shall in no way be relieved of any obligation under it due to his failure to receive or examine any form or legal instrument or to visit the site and acquaint himself with the conditions there existing, and the Owner will be justified in rejecting any claim based on facts regarding which the Contractor should have been on notice as a result thereof.

4. ALTERNATE BIDS

No Alternative or Supplementary Bids will be considered unless such Bids are specifically requested in the Special Conditions and shown on the Bid Proposal Form.

5. BIDS

a. All Bids must be submitted (written) on forms as supplied in these documents and shall be subject to all requirements of the Contract Documents, including the Drawings, and these INSTRUCTIONS TO BIDDERS. All Bids must be regular in every respect and no interlineations, excisions or special conditions shall be made or included in the Bid Forms by the Bidder.

b. The following items must be included in the Bid package:

- The Bid Forms (base bid and bid alternate sheets)
- Form for Identification of Key Subcontracts, Equipment and Materials

- Form of Surety Guaranty/Project Security
- Non-Collusion Affidavit
- Certification Regarding Equal Opportunity Form
- Certification of Non-Segregated Facilities
- Receipt of Addenda
- Contractors Certification from Debarred Contractors List
- Statement of Bidder's Qualifications

Bid package shall be enclosed in an envelope which shall be sealed and clearly labeled with the words "Bid Documents", project number, name of Bidder and date and time of Bid opening in order to guard against premature opening of the Bid.

c. The Owner may consider as irregular any Bid on which there is an alteration of or departure from the Bid Forms thereto attached and at its option may reject the same.

d. Each Bidder SHALL include in his Bid the following information:

Principals:

Names
Social Security Number
Home addresses, including City, State, and Zip Codes

Firm:

Name
Treasury Number
Address
City, State and Zip Code

6. BID GUARANTY

a. The Bid must be accompanied by a Bid Guaranty which shall not be less than five (5) percent of the amount of the total Bid as stated in the Invitation for Bids. At the option of the Bidder, the guaranty may be a certified check, bank draft, negotiable U.S. Government Bonds (at par value), or a Bid Bond in the form attached, provided such guaranty is accompanied by a Certificate of Surety evidencing sufficient bonding capacity. The Bid Bond shall be secured by a Guaranty or a Surety Company listed in the latest issue of the U.S. Treasury Circular 570. The amount of such Bid Bond shall be within the maximum amount specified for such Company in said Circular 570. (NO BID WILL BE CONSIDERED UNLESS IT IS ACCOMPANIED BY THE REQUIRED GUARANTY.) Certified check or bank draft must be made payable as stated in the Invitation for Bids. Cash deposits will not be accepted. The Bid Guaranty shall insure the execution of the Agreement and the furnishing of the Surety Bond or Bonds by the successful Bidder, all as required by the Contract Documents.

b. The bid bond must name the TOWN OF DUANESBURG, NY as obligee.

c. Revised Bids submitted before the opening of Bids, whether forwarded by mail or telegram, if representing an increase in excess of two percent (2%) of the original Bid, must have the Bid Guaranty adjusted accordingly; otherwise, the Bid will not be considered.

d. Certified checks or bank drafts, or the amount thereof, Bid Bonds and negotiable U.S. Government Bonds of unsuccessful Bidders will be returned but in accordance with the Invitation for Bids.
NOTE: A LETTER OF CREDIT IS NOT AN ACCEPTABLE BID GUARANTY.

7. COLLUSIVE AGREEMENTS

a. Each Bidder submitting a Bid to the Owner for the work contemplated by the Documents on which bidding is based shall execute and attach thereto, the Non-Collusion Affidavit(s) on the form(s) herein provided, to the effect that he has not colluded with any other person, firm or corporation in regard to any Bid submitted.

b. Before executing any Subcontract, the successful Bidder shall submit the name of any proposed Subcontractor for prior approval and an affidavit in the form provided herein.

8. STATEMENT OF BIDDER'S QUALIFICATIONS

a. Each bidder shall, upon request of the Owner, submit on the form provided, a statement of the bidder's qualifications, his experience record in the type of work embraced in the contract and his organization and equipment available for the work contemplated; and other pertinent information so contained on said form, and, when specifically requested, the Owner shall have the right to take such steps as it deems necessary to determine the ability of the bidder to complete the contract obligations.

b. The Owner reserves the right to consider as not responsive any bidder who does not habitually perform with his own forces at least 50% of the dollar value of the work involved in this contract.

9. UNIT PRICES

a. The Unit Price for each of the items in the Bid of each Bidder shall include its prorata share of overhead and profit so that the sum of the products obtained by multiplying the quantity shown for each item by the Unit Price Bid represents the total Bid. The quantities shown in the Bid are approximate estimated quantities only and are given only as a basis of calculation upon which the Award of the Contract is to be made. The Owner does not assume any responsibility that these quantities shall remain unchanged in the actual construction, and the Contractor shall not plead misunderstanding or deception because of any variation between estimated and final quantities. The Unit Price Bid shall also include an allowance for increased prices due to changed market conditions during the period of the Contract. Any Bid not conforming to these requirements may be rejected. The special attention of all Bidders is called to these provisions, for, should conditions make it necessary to revise the quantities, no limit will be fixed for such increased or decreased quantities nor extra compensation allowed, except for work not covered in the Drawings and Technical Specifications as provided for in the Section 109 Changes in the Work under General Conditions, Part I.

b. Bids in which the prices obviously are unbalanced may be rejected. Unbalanced prices shall be interpreted to mean that the unit price for any item is such that it is unreasonable for that particular item when considered by itself and not considered in connection with the bid submitted on any other item or items.

c. All unit price work will include the cost of performing any incidental work, not specifically covered by the unit description, but necessary and/or convenient for the completion of the unit price work. (i.e., Any excavation will include any necessary pumping and/or sheeting/shoring unless there are separate contract unit prices for pumping and/or sheeting/shoring.)

d. All unit price work should include all state and local taxes.

10. CORRECTIONS

Erasures or other changes in the Bid must be initialed by the Bidder.

11. TIME FOR RECEIVING BIDS

a. Bids received prior to the advertised hour of opening will be securely kept, sealed. The officer whose duty it is to open them will decide when the specified time has arrived, and no Bid received thereafter will be considered; except that when a Bid arrived by mail after the time fixed for opening, but before the reading of all other Bids is completed, and it is shown to the satisfaction of the Owner that the non-arrival time is due solely to delay in the mails for which the Bidder was not responsible, such Bid will be received and considered.

b. Bidders are cautioned that, while telegraphic modifications of Bids may be received as provided above, such modifications, if not explicit and if in any sense subject to misinterpretation, shall make the Bid as modified or amended, subject to rejection.

12. OPENING OF BIDS

At the time and place fixed for the opening of Bids, the Owner will cause to be opened and publicly read aloud every Bid received within the time set for receiving Bids, irrespective of any irregularities therein. Bidders and other persons properly interested may be present, in person or by representative.

13. WITHDRAWAL OF BIDS

Bids may be withdrawn on written or telegraphic request dispatched by the Bidder in time for delivery in the normal course of business to the time fixed for opening; provided, that written confirmation of any telegraphic withdrawal over the signature of the Bidder is placed in the mail and postmarked prior to the time set for Bid opening. The Bid Guaranty of any Bidder withdrawing his Bid in accordance with the foregoing conditions will be returned promptly.

14. AWARD OF CONTRACT: REJECTION OF BIDS

a. If the Contract is awarded, it will be awarded to the responsible Bidder submitting the lowest Bid complying with the conditions of the Invitation for Bids and Instructions to Bidders. The Bidder to whom the award is made will be notified at the earliest possible date. The Owner, however, reserves the right to reject any and all Bids and to waive any informality in Bids received whenever such rejection or waiver is in its interest.

b. The Owner also reserves the right to consider as not responsive any Bidder who does not habitually perform with his own forces at least fifty percent (50%) of the dollar value of the work involved in this Contract.

15. EXECUTION OF AGREEMENT: PERFORMANCE BOND, LABOR AND MATERIAL PAYMENT BOND OR IRREVOCABLE LETTER OF CREDIT

a. Subsequent to the award and within ten (10) days after the prescribed forms are presented for signature, the successful Bidder shall execute and deliver to the Owner, an Agreement in the form included in the Contract Documents in such number of copies as the Owner may require.

b. Having satisfied all conditions of award as set forth elsewhere in these Documents, the successful Bidder shall, within the period specified in paragraph "a" above, furnish a Performance Bond and a Labor and Material Payment Bond, each in a penal sum of not less than one hundred percent (100%) of the Contract as awarded, as security for the faithful performance of the Contract, and for the payment of all persons, firms or corporations to whom the Contractor may become legally indebted for labor, materials, tools, equipment, or services of any nature including utility and transportation services, employed or used by him in performing the work. Such bonds shall be in the same form as that included in the Contract Documents and shall bear the same date as, or a date subsequent to that of the Agreement. The current power of attorney for the person who signs for any surety company shall be attached to such bonds. These bonds shall be signed by a Guaranty or Surety Company listed in the latest issue of the U.S. Treasury Circular 570 and the penal sum shall be within the maximum specified for such Company in said Circular 570. Note: All bonds must name Owner as obligee

c. Only if required by local or state law, the Contractor shall submit a "Contract Bond" in lieu of the "Performance Bond" and "Labor and Material Payment Bond". Said Contract Bond, if required, shall be in the form contained herein.

d. Notwithstanding the foregoing, all bonds required by law shall be in accordance with the form and substance so required by law.

e. The failure of the successful Bidder to execute such Agreement and to supply the required bonds within ten (10) days after the prescribed forms are presented for signature, or within such extended period as the Owner may grant based upon reasons determined sufficient by the Owner, shall constitute a default, and the Owner may either award the Contract to the next lowest responsible Bidder or re-advertise for Bids. In the event of such default, the Bidder shall be obligated to the Owner in the amount of the Bid Guaranty as liquidated damages for such default.

~~If the Contractor does not have the ability to secure said bonds, the Town will require the Contractor to furnish an Irrevocable Letter of Credit from a U.S. based, Federally Insured Bank or security institution showing that the Contractor has the ability to and shall produce to the Town funds in the amount of 100% of the contract price within 7 calendar days if requested by the Town.~~

16. WAGES AND SALARIES

Attention of Bidders is particularly called to the requirements concerning the payment of not less than the prevailing wage and salary

rates specified in the Contract Documents and the conditions of employment with respect to certain categories and classifications of employees. See also the Labor Standard Provisions of the General Conditions.

The rates of pay set forth within the Contract Documents are the minimum to be paid during the life of the Contract. It is, therefore, the responsibility of Bidders to inform themselves as to local labor conditions, such as the length of work day and work week, overtime compensation, health and welfare contributions, labor supply and prospective changes or adjustment of rates.

17. TIME IS OF THE ESSENCE

Onsite Construction shall be completed and plant by March 30, 2023.

18. ARTICLE 15-REQUIREMENTS

PARTICIPATION BY MINORITY GROUP MEMBERS AND WOMEN WITH RESPECT TO STATE CONTRACTS: REQUIREMENTS AND PROCEDURES

(a) General Provisions

(1) The Department is required to implement the provisions of New York State Executive Law Article 15-A and 5 NYCRR Parts 142-144 ("M/WBE Regulations") for all State contracts as defined therein, with a value (1) in excess of \$25,000 for labor, services, equipment, materials, or any combination of the foregoing or (2) in excess of \$100,000 for real property renovations and construction.

(2) The Contractor to the subject contract (the "Contractor" and the "Contract," respectively) agrees, in addition to any other nondiscrimination provision of the Contract and as no additional cost to the New York State Department (the "Department"), to fully comply and cooperate with the Department in the implementation of New York State Executive Law Article 15-A. These requirements include equal employment opportunities for minority group members and women-owned. These requirements include equal employment opportunities for minority group members and women ("EEO") and contracting opportunities for certified minority and women-owned business enterprises ("M/WBEs"). Contractor's demonstration of "good faith efforts" pursuant to 5 NYCRR §142.8 shall be part of these requirements. These provisions shall be deemed supplementary to, and not in lieu of, the nondiscrimination provisions required by New York State Law Article 15 (the "Human Rights Law") or other applicable federal, state or local laws.

(3) Failure to comply with all of the requirements herein may result in a finding of non-responsiveness, non-responsibility and/or a breach of contract, leading to the withholding of funds or such other actions, liquidated damages pursuant to Section VII of this Article or enforcement proceedings as allowed by the Contract.

(b) Contract Goals

(1) For purposes of this procurement, the Department hereby established an overall goal of 20% for Minority and Women-Owned Business Enterprises ("M/WBE") participations, (Based on the current availability of qualified MBEs and WBEs).

(2) For purposes of providing meaningful participation by M/WBEs on the Contract and achieving the Contract Goals established in Section 11-A hereof, Contractor should reference the directory of the New York State Certified M/WBEs found at the following internet address; <http://ny.nemnycontracts.com>

(3) Where M/WBE goals have been established herein, pursuant to 5 NYCRR §142.8, Contractor must document "good faith efforts" to provide meaningful participation by M/WBEs as subcontractors or suppliers in the performance of the Contract. In accordance with Section 316-a of Article 15-A and 5 NYCRR §142.13, the Contractor acknowledges that if the Contractor is found to have willfully and intentionally failed to comply with the M/WBE participation goals set forth in the Contract, such a finding constitutes a breach of contract and the Contractor shall be liable to the Department for liquidated or other appropriate damages, as set forth herein.

(c) Equal Employment Opportunity (EEO)

(1) Contractor agrees to be bound by the provisions of Article 15-A and the M/WBE Regulations promulgated by the Division of Minority and Women's Business Development of the State of Economic Development (the "Division"). If any of these terms or provisions conflict with applicable law or regulations, such laws and regulations shall supersede these requirements. Contractor shall comply with the following provision of Article 15-A:

(i) Contractor and Subcontractors shall undertake or continue existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status. For these purposes, EEO shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation.

(ii) The Contractor shall submit an EEO policy statement to the Department within seventy two (72) hours after the date of the notice by Department to provide the Contract to the Contractor.

(iii) If Contractor or Subcontractor does not have an existing EEO policy statement, the Department may provide the Contractor

or Subcontractor a model statement. This statement can be found at the link provided in Section 8.

(iv) The Contractor's EEO policy statement shall include the following language:

a. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability or marital status, will undertake or continue existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination, and shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force.

b. The Contractor shall state in all solicitations or advertisements for employees that, in the performance of the contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

c. The Contractor shall request each employer Department, 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 employer Department, 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.

d. The Contractor will include the provisions of Subdivisions (a) through (c) of this Subsection 4 and Paragraph "B" of this Section III, which provides for relevant provisions of the Human Rights Law, in every subcontract in such a manner that the requirements of the subdivisions will be binding upon each subcontractor as to work in connection with the Contract.

e. EEO Contract Goals for the purposes of this procurement, the Department hereby establishes a goal of 0% Minority Labor Force Participation, 0% Female Labor Force Participation.

(2) Staffing Plan Form

To ensure compliance with this Section, the Contractor shall submit a staffing plan to document the composition of the proposed workforce to be utilized in the performance of the Contract by the specified categories listed, including ethnic background, gender, and Federal occupational categories. Contractors shall complete the Staffing plan as part of the M/WBE Utilization Plan and submit at the time of award of the contract.

(3) Workforce Employment Utilization Report Form ("Workforce Report")

(i) Once a contract has been awarded and during the term of Contract, Contractor is responsible for updating and providing notice to the Department of any changes to the previously submitted Staffing Plan. This information is to be submitted on a quarterly basis during the term of the Contract to report the actual workforce utilized in the performance of the Contract by the specified categories listed including ethnic background, gender, and Federal occupational categories. The Workforce Report must be submitted to report this information.

(ii) Separate forms shall be completed by Contractor and any subcontractor performing work on the Contract.

(iii) In limited instances, Contractor may not be able to separate out the workforce utilized in the performance of the Contract from Contractor's and/or subcontractor's total workforce. When a separation can be made, Contractor shall submit the Workforce Report and indicate that the information provided related to the actual workforce utilized on the Contract. When the workforce to be utilized on the contract cannot be separated out from Contractor's and/or subcontractor's total workforce, Contractor shall submit the Workforce Report and indicate that the information provided is Contractor's total workforce during the subject time frame, not limited to work specifically under the Contract.

(4) Contractor shall comply with the provisions of the Human Rights Law, all other State and Federal statutory and constitutional non-discrimination provisions. Contractor and 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.

(d) M/WBE Utilization Plan

(1) The Contractor represents and warrants that Contractor has submitted an M/WBE Utilization Plan either prior to, or at the time of, the execution of the contract.

(2) Contractor agrees to use such M/WBE Utilization Plan for the performance of M/WBEs on the Contract pursuant to the prescribed M/WBE goals set forth in Section X-B-1 of this Attachment.

(3) Contractor further agrees that a failure to submit and/or use such M/WBE Utilization Plan shall constitute a material breach of the terms of the Contract. Upon the occurrence of such a material breach, Department shall be entitled to any remedy provided herein, including but not limited to, a finding of Contractor non-responsiveness.

(e) Waivers

(1) For Waiver Requests Contractor should use Waiver Request Form.

(2) If the Contractor, after making good faith efforts, is unable to comply with M/WBE goals, the Contractor may submit a Request for Waiver form documenting good faith efforts by the Contractor to meet such goals. If the documentation included with the waiver request is complete, the Department shall evaluate the request and issue a written notice of acceptance or denial within twenty (20) days of receipt.

(3) If the Department, upon review of the M/WBE Utilization Plan and updated Quarterly M/WBE Contractor Compliance Reports determines that Contractor is failing or refusing to comply with the Contract goals and no waiver has been issued in regards to such non-compliance, the Department may issue a notice of deficiency to the Contractor. The Contractor must respond to the notice of deficiency within seven (7) business days of receipt. Such response may include a request for partial or total waiver of M/WBE Contract Goals.

(f) Quarterly M/WBE Contractor Compliance Report

Contractor is required to submit a Quarterly M/WBE Contractor Compliance Report Form to the Department by the 10th day following each end of quarter over the term of the Contract documenting the progress made towards achievement of the M/WBE goals of the Contract.

(g) Liquidated Damages - M/WBE Participation

(1) Where Department determines that Contractor is not in compliance with the requirements of the Contract and Contractor refuses to comply with such requirements, or if Contractor is found to have willfully and intentionally failed to comply with the M/WBE participation goals, Contractor shall be obligated to pay to the Department liquidated damages.

- (2) Such liquidated damages shall be calculated as an amount equaling the difference between:
- (i) All sums identified for payment to M/WBEs had the Contractor achieved the contractual M/WBE goals; and
 - (ii) All sums actually paid to M/WBEs for work performed or materials supplied under the Contract.
- (3) In the event a determination has been made which requires the payment of liquidated damages and such identified sums have not been withheld by the Department, Contractor shall pay such liquidated damages to the Department within sixty (60) days after they are assessed by the Department unless prior to the expiration of such sixtieth day, the Contractor has filed a complaint with the Director of the Division of Minority and Woman Business Development pursuant to Subdivision 8 of Section 313 of the Executive Law in which event the liquidated damages shall be payable if Director renders a decision in favor of the Department.

(b) Forms referenced in this Article can be found at <https://www.das.ny.gov/about/68854.html>

19. NOTICE: CONTRACTORS, SUBCONTRACTORS, SUPPLIERS AND VENDORS
 This project is funded in part by a grant from the NYS Department of Environmental Conservation. All contracts and subcontracts for the project are subject to the terms of the NYS Master Contract for Grants -- Standard Terms and Conditions (MCG), and Attachment A-1 (A-1) which is attached hereto as Exhibit A.

Note particularly the following requirements:

- The State's right to review and approve every subcontract in excess of \$100,000. MCG IV(B)(2)
- The requirement that subcontracts contain provisions specifying (1) that the work is in accord with the terms of the Master Contract, (2) that nothing can impair the rights of the State under the Master Contract, and (3) that nothing in the subcontract creates a contractual relationship between the subcontractor and the State. MCG IV(B)(2)
- Contractor's responsibility to submit vendor responsibility information to the State, including a Vendor Responsibility Questionnaire for subcontracts that equal or exceed \$100,000. MCG IV(B)(4) (See Exhibit F.)
- Non-discrimination requirements MCG IV(I) and A-1 AXC(4)
- Equal Opportunity provisions, including a requirement that the following provisions be included in construction subcontracts in excess of \$25,000:

- o The Contractor shall not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status;
- o The Contractor shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on State contracts;
- o The Contractor shall undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;
- o At the request of the State, 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 shall not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative shall affirmatively cooperate in the implementation of the Contractor's obligations herein; and
- o The Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the State contract, all qualified applicants shall be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status. MCG IV(J1 - J5)

- M/WBE requirements MCG IV(K) and A-1 AX
- Wages and Hours Provisions MCG IV(Q)
- Worker's Compensation and Disability Benefits Insurance coverage A-1 B(II)
- Signage A-1 B(VIII)

20. OWNERS GENERAL CONDITIONS

No additional Owner specific conditions are contained in this contract.

21. LIST OF DRAWINGS

The following drawings are part of the Contract Documents package and are bound separately.

Discipline	Sheet No.	Sheet Title
		BASE BID WORK
		Cover Sheet
Mechanical	M-1	Existing WWTP Floor Plan
	M-2	UV Upgrade Floor Plan
	M-3	UV Upgrade Sections and Details

22. GENERAL CONTRACT BASE BID WORK ITEM DESCRIPTIONS

Contract No. TD1-G-20 - General:

Under this contract, the General Contractor shall provide all submittals, materials, labor, equipment, tools, services, etc. and any associated work as necessary to complete the work set forth in the work items and to successfully complete the MARIAVILLE WWTP UV DISINFECTION PROJECT as called for in these Project Specifications, and the Contract Drawings.

Note that the Contractor shall furnish and install all items/materials; that is, the TOWN will not be providing any items/materials for subsequent installation or use by the Contractor unless specifically identified.

Below are the work items included in the base bid work for contract TD1-G-20 - General.

- Work Item #1.01 - Mobilization & Demobilization, Bonds, Insurance - Lump Sum Basis (fixed maximum)
- Work Item #2.01 - New UV System in Filter Building - Lump Sum Basis.
- Work Item #3.01 - Installation of new 6 inch shut off valve into new run of process line.
- Work Item #4.01 - Electrical work associated with UV installation.
- Allowance CONTR #1.01: - Bids should include a line item for Allowance CONTR #1.01 in the Sum of \$2,000 (two thousand dollars)

Work Item #1.01 - Mobilization, Demobilization, Bonds, Insurance, and Miscellaneous - Lump Sum Basis (fixed maximum)

- Under this item, work shall include, but is not limited to:
- Mobilize and demobilize as many times as necessary during the project
 - Coordination with the Town, Engineer, property owners, other contractors, etc.

- Provide project security/bonds (including but not limited to bid, performance, labor and material, and one-year maintenance bonds)
- Provide insurance certificates and maintain insurances for the contract with the Owner
- Preparation for, attendance at, and response required to issues raised at project meetings
- Providing submittals and shop drawings
- Provide site security at all times during both construction activity and non-work activity.
- Providing payment application materials
- Provide and maintain project schedule
- Provide warranties and guarantees
- All permits and fees (including NYS DOT permits and fees, unless NYS DOT permits are shown as a separate work item)
- Perform construction field surveying/stakeout
- Provide continuous access to impacted driveways
- Provide signage and traffic control
- All coordination with all regulatory authorities including local codes offices, NYS DOT, NYS DEC, local and state Departments of Health
- Compliance with all regulatory/funding agency requirements
- Furnish and Install Project Sign per Attachment A-1, sub Attachment E, Signage, pages 38 - 40.
- Perform regular clean-up of work areas and affected roadways
- Provide as-built drawings and logs to Engineer

Payment for this work item will be as follows:

- 40% after issuance of Notice to Proceed, less 5% retainage
- Additional 10% (total of 50%) after completion of 50% of the work, less 5% retainage
- Additional 20% (total of 70%) after completion of 70% of the work, less 5% retainage
- Additional 20% (total of 90%) after issuance of Substantial Completion, less 5% retainage
- Remaining 10% (total of 100%) including retainage, following Engineer's receipt and satisfactory acceptance of as-built information, contract closeout information and the receipt of the required maintenance bond.

NOTE: Total lump sum for this work item shall not exceed 5% of the bid price.

Work Item #2.01 New UV System - Lump Sum Basis

- Under this work item, the Contractor shall:
- Furnish and install a new dual train (2 Banks) in one (1) channel

- with turn box ultraviolet (UV) disinfection system. UV to be installed in a manufactured stainless steel basin provided by the UV manufacturer. Provide controllers each UV Bank (two controllers) for full redundancy of new equipment.
- Furnish spare parts
 - Furnish, as shown on drawings or as needed, flanged fittings off the end of the inlet and outlet of the new UV unit. Then converting to Victaulic style fittings.
 - Furnish and install Victaulic piping, clamps, valves (qty: 3 - 8" geared plug valves with wheeled actuators), supports and floor pipe supports as required to connect new UV unit to existing piping. Installation shall be done with the appropriate tools for preparing pipe for Victaulic fittings (grooving tool).
 - Modify existing piping as required to accommodate new UV unit.
 - Furnish/install all controls, fittings, appurtenances to provide an operational UV system.
 - Demolish existing piping as per drawings to install the new UV system.
 - Provide temporary piping & piping as required to maintain treatment facility in operation while new UV system is being installed.
 - Furnish and install UV equipment (concrete) supports as required by UV manufacturer
 - Provide startup and training on new equipment
 - Provide for testing of the UV system efficacy per a coil testing as described in UV Specification.
 - Painting of new pipe with primer and finish coat (to match existing color)
 - Provide cleanup of work area

Payment for this work item will be provided based on the percentage of work successfully completed and deemed acceptable by the Engineer and Owner at the time of submission of a payment application multiplied by the lump sum unit price in the bid for this item, with 5% retainage withheld until Engineer's receipt and satisfactory acceptance of as-built information and contract closeout information.

Work Item #3.01 Installation of new 6 inch shut off valve into process line.- Lump Sum

Under this item, the General Contractor shall provide all materials, labor, equipment, tools, services, etc., as required to install a mechanical fine screen. These include, but are not limited to the following:

- Remove existing length of DIP as noted on drawings. Making sure that Clear Well level is below the level of pipe. Will require the cooperation of Plant Operators, the need to send effluent directly from the filter to existing effluent weir box.

- Need to remove existing Link-seal (modular, elastomer sealing system that creates hydrostatic seal on existing piping. Clean wall penetration after removal
- Furnish and install 3 ft length of six (6") ductile iron pipe with groove on the inside end of the pipe for Victaulic fittings. Form permanent hydrostatic seal by installing appropriate 6" Link Seal appliance per manufacturer's instructions.
- Furnish/install one (1) new six (6") Victaulic plug valve and hardware as noted on contract drawing and specifications. One end of valve to be installed on existing tee and the other to the new 6" DIP pipe.
- Prepare pipe for painting with abrasive blast cleaning. Prime pipe with Series 394 PrimePrime (Thomco Coatings).
- Finish with two (2) coats of Series V69F Hi-Build Epoxoline II. Color to match existing piping.
- Exercise valve
- Cleanup of work area

Payment for this work item will be provided based on the percentage of work successfully completed and deemed acceptable by the Engineer and Owner at the time of submission of a payment application multiplied by the lump sum unit price in the bid for this item, with 5% retainage withheld until Engineer's receipt and satisfactory acceptance of as-built information and contract closeout information.

Work Item #4.01 - Electrical Work

Under this item, the General Contractor shall retain the services of a NYS licensed electrician who shall work under the General Contractor's contract. Electrician with General Contractor shall provide all materials, labor, equipment, tools, services, etc., as required to provide power to the new UV disinfection system. These include, but are not limited to the following:

- Electrician Furnish/install 3/4" schedule 40 PVC from top of existing breaker panel up wall over ceiling and down to 4" gray round weatherproof junction box (furnish and install) with five 3/4" outlets & face plate. Seal two outlets with closure plugs. Furnish and install supports every three (3) feet.
- Locate two unused 20 amp breakers at existing breaker panel. Run three wires (neutral, hot, ground) from each breaker to weatherproof junction box. Run three wires each, two from common breaker and ground to one of two power splitter boxes. Further run three wires to control box to power it. Use sealtite, liquid-tite or similar conduit and water tight connectors.
- Furnish and install two power splitter appliances on GC field-made Kindorf racks. Mount control panel on Kindorf rack.

- Make all required terminations. Prior to starting up equipment test all circuits.
- Run two 16 gauge blue colored wires from each Control panel to common 3/4" conduit. Run conduit and wires up to ceiling, over ceiling, drill 1- 1/16" hole through CMU wall to Office/Lab, run conduit and wires through hole continue down to Sense-phone system. Leave 4 foot coil of each wire at Sense-phone system. Terminations into, and need upgrades to that system will be handled under, Allowance CONTR #1.01.
- Control wires should be clearly marked as to which control box they originate from.
- Cleanup of work Area

Payment for this work item will be provided based on the percentage of work successfully completed and deemed acceptable by the Engineer and Owner at the time of submission of a payment application multiplied by the lump sum unit price in the bid for this item, with 5% retainage withheld until Engineer's receipt and satisfactory acceptance of as-built information and contract closeout information.

Allowance CONTR #1.01 -- Termination of Control Wiring and Upgrades to Existing Sense-phone System

Under this item, the Contractor shall contact and retain the service of, Avanti Control Systems, Gloversville, NY 12078. Phone: (518) 921 4368 / Fax: (518) 921 4486.

- The amount of this allowance will be two thousand dollars (\$ 2,000 dollars).

Payment for this work item will be as follows:

- Payment for this work item will be provided based on the percentage of work successfully completed and deemed acceptable by the Engineer and Owner at the time of submission of a payment application multiplied by the lump sum unit price in the bid for this item, with 5% retainage withheld until Engineer's receipt and satisfactory acceptance of as-built information and contract closeout information.

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Forms to be Submitted with Bid

(Pages 33 thru 77)

DELAWARE ENGINEERING, D.P.C.

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DELAWARE ENGINEERING, D.P.C.

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TOWN OF DUANESBURG, NY
MARIAVILLE WWTP / NYS CONTRACT NUMBER # DEC01-C0079900-3350000
ULTRA-VIOLET (UV) DISINFECTION PROJECT
CONTRACT No. TD1-G-21 GENERAL

BID FORM - GENERAL

FOR: TOWN OF DUANESBURG, NY
Mariaville WWTP, Ultra-Violet (UV) Disinfection Project
Contract No. TD1-G-21 - General

Having familiarized themselves with the existing conditions of the project area affecting the cost of the work and in compliance your invitation to bid, and the instructions to bidders relating thereto, the undersigned hereby offers to furnish all labor, materials, supplies, equipment, services and other facilities necessary to complete the construction thereon and including all trades as required to complete the general construction of the Mariaville WWTP, Ultra-Violet (UV) Disinfection Project, Contract No. TD1-G-21 - General as per these specifications and the contract drawings.

The following bid sheet has been set up to correspond with the Contract Description Work Items. The grand total base bid (i.e., the sum of the base bids for all sites) will provide the basis for bid comparison and determination of the low bid.

1. The Contractor shall provide quotes for all work items and by doing so, agrees to hold unit prices set forth therein understanding that the TOWN reserves the right to deduct work quantities, as they see fit, without subsequent adjustment of the Contractor's stated unit prices. Further note that project compensation will be provided on the basis of the bid prices and actual quantities of work completed.

Contractors are to fill in pricing for all base bid and bid alternate work. Failure to provide pricing for all work will constitute a bid informality.

2. In submitting this Bid, the Bidder understands that the right is reserved by the Owner to reject any or all Bids. If written notice of the acceptance of this Bid is mailed, telegraphed or delivered to the undersigned within the time limit specified for holding of Bids for review in the "Invitation for Bids" after the opening thereof, or at any time thereafter before this Bid is withdrawn, the undersigned agrees to execute and deliver an Agreement in the prescribed form and furnish the required bonds within ten (10) days after the Agreement is presented to him for signature.

Further, the Bidder agrees to hold the Owner harmless, with no responsibility to provide payment of any kind to the Contractor, should funding be deobligated prior to execution of the Notice to Proceed.

3. Bid Security in the amount of 5% of the Base Bid amount for the sum of: _____ Dollars
(\$ _____) in the form of _____ is submitted herewith in accordance with the Instructions to Bidders.

4. Attached hereto are the following forms:

- Bid Sheets
- Form for Identification of Key Subcontracts, Equipment and Materials
- Form of Certification of Non-Segregated Facilities
- Form of Receipt of Addenda

DELAWARE ENGINEERING, D.P.C.

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DELAWARE ENGINEERING, D.P.C.

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- Form of Non-Collusive Bidding Certification
- Bid bond
- Form of Certificate as to Corporate Principal
- Form of Surety Guarantee or Statement from Institution issuing the irrevocable line of credit
- Statement of Bidder's Qualifications (to be submitted with their bid by companies who have not worked for the Town within the last 10 years; those who have worked for the Town within the last 10 years can submit the form with their bid or provide it to the Town within 3 business days of request)
- Related Project Experience
- Form of Certification Regarding Equal Opportunity Employment
- Contractors Certification from Debarred Contractors List

BID SUBMITTED BY: _____
(Name of Company)

SIGNATURE OF BIDDER'S REPRESENTATIVE _____

BIDDER'S ADDRESS _____

DATE: _____

BASE BID SHEET

Quantity	Unit	Description	Group	Unit Measure	Unit Price	Contract Bid Price
0-1	Lump	Notification/Dispatch Station, Bonds, Insurance, Misc	1	Lump Sum	\$ _____	\$ _____
0-2	Lump	Raw UV Station in BFM Building	1	Lump Sum	\$ _____	\$ _____
0-3	Lump	Installation of New air (2) lock plug valve - 4" x 10" into one end of process line	1	Lump Sum	\$ _____	\$ _____
0-4	Lump	Electrical work associated with UV Unit Station	1	Lump Sum	\$ _____	\$ _____
0-5	CONTR. PRICED	Allowance for Unknowns/Contingency	1	Lump Sum	\$20000	\$20000
BASE BID TOTAL (in Figures)					\$ _____	\$ _____
MADE BID TO (in Words) BID MAINTAINED BY: Name of Company Date & Address						



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Base Bid Sheet No. 1 of 1

IDENTIFICATION OF KEY SUBCONTRACTS, EQUIPMENT AND MATERIALS

Contractor shall provide with their bid this table with information on indicated key subcontracts, equipment and materials. This will allow the Owner to better evaluate bids and expedite the bid award process. Failure to do so will result in a bid informality. (TD1-G-21-General Only)

Subcontracts, Equipment or Materials (Manufacturer/Specified Supplier)	Company Name, Manufacturer or Supplier (Please Provide: Name, Address, Telephone, Contact Person and Email)
Electrician	
UV Unit	
Ductile Iron Pipe	
Victaulic fittings, valves, installation equipment.	

FORM OF
CERTIFICATION OF NONSEGREGATED FACILITIES

This Bidder certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The Bidder certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The Bidder agrees that a breach of his certification will be a violation of the Equal Opportunity clause in any Contract resulting from acceptance of this Bid. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clock, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, color, religion, or national origin, because of habit, local custom or otherwise. The Bidder agrees that (except where he had obtained identical certification from proposed Subcontractors for specific time periods) he will obtain identical certifications from proposed Subcontractors prior to the award of Subcontracts exceeding \$10,000.00 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certifications in his files.

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Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. Paragraph 1001.

Date: _____

Company: _____

By: _____ Title: _____
(signature of representative)

Official Address: _____

FORM OF RECEIPT OF ADDENDA

Addendum	Signature	Date Rec'd
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____

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Company Name: _____

Address: _____

Firm's Treasury Number _____

Company Representative: _____
(print name and title)

Signature: _____

Date: _____

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

Subscribed and sworn to before me
this ___ day of _____, _____

State of _____
County of _____

_____ being first duly
(name of company signator)
sworn, deposes and says that:
He/she is _____
(title)
of _____,
that has submitted the attached Bid:

(title)
My Commission Expires _____

He is fully informed respecting the preparation and contents of the
attached Bid and of all pertinent circumstances respecting such Bid;
Such Bid is genuine and is not a collusive or sham Bid;

Neither the said Bidder nor any of its officers, partners, Owners,
agents, representatives, employees or parties in interest, including
this affiant, has in any way colluded, conspired, connived or agreed,
directly or indirectly with any other Bidder, firm or person to submit
a collusive or sham Bid in connection with the Contract for which the
attached Bid has been submitted or to refrain from bidding in
connection with such Contract, or has in any manner, directly or
indirectly, sought by other Bidder, firm or person to fix the price or
prices in the attached Bid or of any other Bidder, or to fix any
overhead, profit or cost element of the Bid price or the Bid price of
any Bidder, or to secure through any collusion, conspiracy, connivance
or unlawful agreement any advantage against the Owner or any person
interested in the proposed Contract; and the price or prices quoted in
the attached Bid are fair and proper and are not tainted by any
collusion, conspiracy, connivance or unlawful agreement on the part of
the Bidder or any of its agents, representatives, Owners, employees,
or parties in interest, including this affiant.
Signed:

(name; print and sign) _____
(title) _____ (date)

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned

as Principal, and

as Surety are held and firmly bound unto the Town of Duanesburg,
hereinafter called the
"Owner", in the penal sum of _____
Dollars, (\$ _____) lawful money of the United
States, for the payment of which sum well and truly to be made, we
bind ourselves, our heirs, executors, administrators, successors, and
assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal
has submitted the Accompanying Bid, dated _____,
for _____

NOW THEREFORE, if the Principal shall not withdraw said Bid within the
period specified therein after the opening of the same, or within any
extended time period agreed to by the Principal, Surety and Owner, or
if no period be specified, within thirty (30) days after the said
opening, and shall within the period specified therefore, or if no
period be specified, within ten (10) days after the prescribed forms
are presented to him for signature, enter into a written Contract with
the Owner in accordance with the Bid as accepted and give bond with
good and sufficient surety or sureties, as may be required, for the
faithful performance and proper fulfillment of such Contract; then the
above obligation shall be null and void and of no effect, otherwise to
remain in full force or virtue.

Failure to comply with the aforementioned condition shall result in
the forfeiture of this Bid Bond as liquidated damages.

IN WITNESS WHEREOF, the above-bounded parties have executed this
instrument under their several seals this _____ day of _____,
_____ the name and corporate seal of each
corporate party being hereto affixed and these presents signed by its
undersigned representative, pursuant to authority of its governing
body.

No extension of time or other modification of this Bid Bond shall be
valid unless agreed to in writing by the parties to this Bond.
In presence of: _____ (SEAL)

(Individual Principal)

(Business Address)

(Business Address)

Attest: _____ By: _____
(Corporate Principal)

By: _____
Affix Corporate Seal

Attest: _____

(Corporate Surety)

(Business Address)

By: _____
Affix Corporate Seal

Countersigned

By: _____

*Attorney-in-Fact, State of _____

*Power-of-Attorney for person signing for Surety Company must be
attached to Bond.

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the
Secretary of the Corporation named as Principal in the within bond;
that _____
who signed the bond on behalf of the Principal was then _____ of said
Corporation; that I know his signature, and his signature thereto is
genuine; and that said bond was duly signed, sealed, and attested to
for and in behalf of said corporation by authority of this governing
body.

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Corporate Seal

Title _____

FORM OF SURETY GUARANTY
(To Accompany Bid)

KNOW ALL MEN BY THESE PRESENTS, that for and in consideration of the
sum of \$1.00, lawful money of the United States, the receipt whereof
is hereby acknowledged, paid the undersigned corporation, and for
other valuable consideration the

(Name of Surety Company)
a corporation organized and existing under the laws of the State of
_____ and licensed to do business in the State of
_____, certifies and agrees, that if

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_____ is
awarded to _____,
undersigned _____, the

(Name of Bidder)
corporation will execute the bond or bonds required by the Contract
Documents and will become surety in the full amount of the Contract
price for the faithful performance of the Contract and for payment of
all persons supplying labor or furnishing materials in connection
therewith.

(Surety)
The Town of Duanesburg, the "OWNER", shall be named as Obligea.

(To be accompanied by the usual proof of authority of officers of
surety company to execute the same.)

~~If the Contractor does not have the ability to secure bonds, the Town
will require the Contractor to furnish an irrevocable letter of credit
from a USA-based, federally insured bank or security institution
stating that the Contractor has the ability to and shall produce to
the Town funds in the amount of 10% of the contract price within 7
business days if requested by the Town. For those Contractors who are
not bonded, please provide a letter from your lending institution
stating that their institution will be issuing the required
irrevocable line of credit as a means of project security.~~

SUPPORT WITH BID!

STATEMENT OF BIDDER'S QUALIFICATIONS

(To be submitted with their bid by companies who have not worked for the Town within the last FIVE years; those who have worked for the Town within the last FIVE years can submit the form with their bid or provide it to the Town within 3 business days of request)

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

1. Name of Bidder.
2. Permanent main office address.
3. When organized.
4. If a corporation, where incorporated.
5. How many years have you been engaged in the contracting business under your present firm or trade name?
6. Contracts on hand: (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion.)
7. General character of work performed by your company.
8. Have you ever failed to complete any work awarded to you? If so, where and why?
9. Have you ever defaulted on a contract? If so, where and why?
10. List the more important projects recently completed by your company, stating the approximate cost for each, and the month and year completed.
11. List your major equipment available for this Contract.
12. List your experience in work similar to this project, i.e., work with grooved pipe systems
13. List the background and experience of the principal members of your organization, including officers.
14. List the work to be performed by Subcontractors and summarize the dollar value of each Subcontract.
15. Credit available: \$ _____.
16. Give Bank reference: _____.

17. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the Owner?

18. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by the Owner in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated: This _____ day of _____,

(Name of Bidder) _____

By: _____

Title: _____

State of _____

County of _____

_____ being duly sworn deposes and says that he is _____

of _____ (Name of Organization)

and that the answers to the foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn to before me this _____ day of _____, _____.

(Notary Public)

My commission expires _____.

PROJECT RELATED EXPERIENCE

The Bidder, and any proposed subcontractor(s) (i.e., subcontractors who will perform 10% or more of the contract work), for which the bidder is seeking Owner acceptance of relevant experience shall complete this form and submit with the Bid. Failure to do so will constitute an informality and will be grounds for deeming the bid non-responsive.

Projects shall be underway or completed within the last 10 years.

Date of Project	Project Description	Project Owner (Provide Name, Address, Telephone # and Contact Person)	Project Status

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CONTRACTORS CERTIFICATION
FROM DEBARRED CONTRACTORS LIST

TO BE COMPLETED BY CONTRACTOR AND ATTACHED TO BID PROPOSAL FORM:

Company Name _____ hereby
(Company Representative; print name)

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certifies that the above listed company is not included on the Consolidated List of debarred, suspended and ineligible contractors and grantses for this purpose and the Comptroller General's Consolidated List of persons or firms currently debarred for violations of various public contracts incorporating labor standards provisions.

(Company Representative; sign name)

(Date signed)

FORMS TO BE
SUBMITTED UPON
CONTRACT AWARD

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AGREEMENT BETWEEN OWNER AND CONTRACTOR

THIS AGREEMENT made this ____ day of _____, _____,

by and between _____
(a corporation organized and existing under the laws of the State of
New York) * ~~(a partnership consisting of~~
~~_____) * (an individual trading as~~
"Contractor") and the TOWN OF DUANESBURG, NY, (hereinafter called the
"Owner").

(*Strike out the two terms not applicable.)

WITNESSETH, that the Contractor and the Owner for the considerations stated herein mutually agree as follows:

Article 1. Statement of Work. The Contractor shall furnish all supervision, technical personnel, labor, materials, machinery, tools, apparatuses, equipment and services, including utility and transportation services and perform and complete all work and required supplemental work for the completion of this Contract in strict accordance with the hereinafter referenced Contract Documents including all Addenda thereto, numbered Addendum # _____.

Article 2. The Contract PRICE. The Owner will pay the Contractor for the performance of the Contract in current funds, for the total quantities of work performed. Determination of payment will be based on actual work completed by the Contractor and approved by the Engineer. Any payment request shall have complete and detailed support information to justify charges to date.

The sum of \$ _____ shall be paid for the completion of Contract # TD1-G-21 _____ for the TOWN OF DUANESBURG, NY, MARIAVILLE WTP UV DISINFECTION PROJECT

Article 3. COMMENCEMENT & COMPLETION OF WORK
The CONTRACTOR agrees that the work included in the Contract shall commence _____ as per written Notice to Proceed issued by the Owner.
The CONTRACTOR further agrees that all contract work will be completed by March 30, 2022.

Article 4. INSURANCE
The CONTRACTOR shall secure and maintain such insurance from an insurance company authorized to write casualty insurance in the State of New York as will protect himself, his subcontractors, and the OWNER from claims for bodily injury, death, or property damage, which may arise from operations under this Contract. The CONTRACTOR shall not commence work until he has obtained certificates of all insurance

required, and filed said certificates with the OWNER. Each insurance policy shall contain a clause providing that the OWNER shall be notified ten (10) days prior to its cancellation. Please see "ATTACHMENT A-1,B.) Program Specific Terms and Conditions, IF Project Insurance Considerations.

A. Workmen's Compensation and Employer's Liability Insurance shall be as outlined in attached contract specifications.

B. Public Liability, Bodily Injury and Property Damage Insurance amounts to be as required in attached contract specifications.

C. Automobile and Truck Public Liability, Bodily Injury and Property Damage Insurance amounts to be as required in attached contract specifications.

D. Public Liability Insurance shall include a rider specifically to insure injury, death or property damage arising from work required by this Contract.

Article 5A. PERFORMANCE BOND
The amount of the Bond required for faithful performance of the Contract will be one hundred percent (100%) of the amount of the estimated cost of the work according to the Contract price and said Bond shall be accepted as to character and sufficiency by the Attorney for the OWNER.

Article 5B. PAYMENT BOND (LABOR AND MATERIAL BOND)
The Payment Bond shall be in compliance with the State Finance Law Section 137 in an amount not less than one hundred percent (100%) of the amount of such Contract, to secure the prompt payment of all monies due and owing to all persons furnishing labor or materials in prosecution of such work.

~~Article 5C. IRREVOCABLE LINE OF CREDIT (ALTERNATIVE TO BONDS)
If the Contractor does not have the ability to secure bonds, the Town will require the Contractor to furnish an irrevocable letter of credit from a USA-based, federally insured bank or security institution stating that the Contractor has the ability to and shall produce to the Town funds in the amount of 100% of the contract price within 7 calendar days if requested by the Town. For those Contractors who are not bonded, please provide this letter from your lending institution stating that their institution will be issuing the required irrevocable line of credit as a means of project security.~~

Article 6. RETAINAGE
To insure Maintenance Security of the project, five percent (5%) of the Contract price shall be withheld and retained by the Owner until substantial completion AND satisfactory submission of as-built and construction closeout information. At that time the Owner will retain

twice the value of any items on the punchlist until those items are completed in accordance with the contract. The Contractor will provide a Maintenance Security Bond to run for one (1) year at the date of substantial completion. The 5% retainage will not be released until the punchlist is signed by all parties, all as-built and construction closeout information is submitted and accepted by the Engineer and the one (1) year Maintenance Bond is provided to the Owner.

- Article 7. CONTRACT DOCUMENTS.
The Contract Documents shall consist of the following (including their attachments and exhibits):
- a. This Agreement
 - b. Addenda
 - c. Invitation for Bids
 - d. Instructions to Bidders
 - e. Signed copy of Bid, with all attachments required for bidding
 - f. General Conditions - Part I and II (and III)
 - g. Special Conditions
 - h. Supplemental Technical Specifications
 - i. Technical Specifications
 - j. Contract Drawings (as listed in the Schedule of Drawings)
 - k. Payment & Performance Bonds
 - l. Certificates of Insurance
 - m. Exhibits not included as part of the documents listed above

This Agreement, together with other Documents enumerated in this Article 7, which said other Documents are as fully a part of the Contract as if hereto attached or herein repeated, forms the Contract between the parties hereto.

Article 8. SPECIAL CONDITIONS

IN WITNESS WHEREOF, the parties to this Agreement have hereunto set their hands and seals and have executed this Agreement the day and year first above written.

(Contractor) (fill in company name)

Attest: _____

By: _____
(Print Name)

(Sign Name)

Title: _____

(Street)

(City, State, Zip Code)

(Print or type the names underneath all signatures)

Town of Duaneburg, NY
(Owner)

By: _____
(Print Name)

(Sign Name)

Title: _____

5853 Western Turnpike
(Street)

Duaneburg, NY 12056
(City, State, Zip Code)

(Print or type the names underneath all signatures)

REPRESENTATIVE CERTIFICATION

I, _____, certify that I am the _____ of the corporation named as Contractor herein; that _____, who signed this Agreement on behalf of the Contractor, was then _____ of the said corporation, that said Agreement was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

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Signed by: _____
(name and title)

Signature: _____

Date: _____

(Corporate Seal, if available)

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That as Principal, hereinafter called Contractor, and _____ as Surety, hereinafter called Surety are held and firmly bound unto the Town of Dunesburg, NY, as Obligor, hereinafter called Owner, in the amount of _____

_____ Dollars, (\$ _____) for payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____, entered into a Contract with Owner for Contract MARIAVILLE WWTF UV DISINFECTION PROJECT, which

Contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of this obligation is such that, if Contractor shall promptly and faithfully perform said Contract, including such remedial work as may be required under the guaranty during the period of guaranty and shall certify in writing that all wages paid under said Contract to any mechanic, laborer or workman were equal to the rates or wages customary or then prevailing for the same trade or occupation in the Project area, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the Owner.

Whenever Contractor shall be, and declared by Owner to be in default under the Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default or shall promptly:

1) Complete the Contract in accordance with its terms and conditions, by another Contractor acceptable to the Owner, said other Contractor to act as an agent for the Surety, or

2) Obtain a Bid or Bids for submission to the Owner for completing the Contract in accordance with its terms and conditions, and upon determination by the Owner and Surety of the lowest responsible Bidder, arrange for a Contract between such Bidder and Owner, and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price, but not exceeding, including, other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The terms "balance of the contract price" as used

in this paragraph, shall mean the total amount payable by the Owner to the Contractor under the Contract and any amendments thereto, less the amount properly paid by the Owner to the Contractor.

Unless otherwise required by law, any suit under this Bond must be instituted before the expiration of one (1) year from the date on which the guaranty period under the Contract expires.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators and successors of Owner.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, the name and corporate seal of each corporate party being hereto affixed and these presents signed by its undersigned representative, pursuant to authority of its governing body.

in presence of:

(Individual Principal) (SEAL)

(Business Address)

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(Business Address) (SEAL)

(Business Address)

Attest: _____ By: _____

(Corporate Principal)

(Business Address)

By: _____
(Affix Corporate Seal)

Attest: _____

(Corporate Surety)

(Business Address)

By: _____
(Affix Corporate Seal)

Countersigned

By: _____

*Attorney-in-Fact, State of _____
*Power-of-Attorney for person signing for Surety Company must be attached to Bond.

BOND NO. _____
LABOR AND MATERIAL PAYMENT BOND

Note: This Bond is issued simultaneously with another Bond in favor of the Owner conditioned for the full and faithful performance of the Contract.

KNOW ALL MEN BY THESE PRESENTS:

That _____

as Principal (hereinafter called Principal) and _____

as Surety, (hereinafter called Surety) are held and firmly bound unto the Town of Duaneburg, NY, as Obligeo, (hereinafter called Owner) for the use and benefit of claimants as herein below defined; in the amount _____ of

Dollars (\$ _____), for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement, dated _____

_____, entered into a Contract with Owner

for Contract MARIAVILLE WWTP UV DISINFECTION PROJECT

which Contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of this obligation is such that, if the said Principal shall promptly pay for all materials furnished and labor supplied or performed in the prosecution of the work included in and under the aforesaid Contract, whether or not the material or labor enters into and becomes a component part of the real asset, then this obligation shall be null and void; otherwise it shall remain and be in full force and effect.

PROVIDED, that any alterations which may be made in the terms of the Contract or in the work to be done under it, or the giving by the Obligeo of any extension of time for the performance of the Contract, or any other forbearance on the part of either the Obligeo or the Principal to the other shall not in any way release the Principal and the Surety or either or any of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, notice to the Surety of any such alterations extension or forbearance being hereby waived.

Any party, whether a subcontractor or otherwise, who furnished materials or supplies or performs labor or services in the prosecution of the work under said Contract, and who is not paid therefore, may bring a suit on this bond in the name of the person suing, prosecute the same to a final judgment, and have execution thereon for such sum as may be justly due.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, the name and corporate seal of each corporate party being hereto affixed and these presents signed by its undersigned representative, pursuant to authority of its governing body.

In presence of:

(Individual Principal) (SEAL)

(Business Address)

(Business Address) (SEAL)

(Business Address)

(Corporate Principal)

(Business Address)

By: _____
(Affix Corporate Seal)

Attest: _____

(Corporate Surety)

(Business Address)

By: _____
(Affix Corporate Seal)

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Countersigned

By: _____

*Attorney-in-Fact, State of _____

*Power-of-Attorney for person signing for Surety Company must be attached to Bond.

ATTACH INSURANCE CERTIFICATE
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SECTION III

GENERAL SPECIFICATIONS - GENERAL CONDITIONS

PART 1

DELAWARE ENGINEERING, D.P.C.

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(01/18/2022 WB)

DELAWARE ENGINEERING, D.P.C.

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(01/18/2022 WB)

TOWN OF DUANESBURG, NY
MARIAVILLE WTP / NYS CONTRACT NUMBER # DEC01-C0079900-3350000
ULTRA-VIOLET (UV) DISINFECTION PROJECT
CONTRACT No. T01-G-21 GENERAL

GENERAL SPECIFICATIONS

Note: The Headings of the articles herein are intended for the convenience of reference only and shall not be considered as having any bearing on their interpretation.

GENERAL CONDITIONS

PART 1

101. DEFINITIONS

Whenever used in any of the Contract Documents, the following meanings shall be given to the terms herein defined:

- a. The term "Contract" means the Contract executed by the Owner and the Contractor.
- b. The term "Owner" means the entity that is authorized to undertake this Contract; **for this contract it would be the Town of Duaneburg, NY.**
- c. The term "Contractor" means the person, firm, or corporation entering into the Contract with the Owner to perform and complete the work involved in this Contract.
- d. The term "Subcontractor" means a person, firm, or corporation supplying labor and materials or only labor for work at the site of the project for, and under separate contract or agreement with the Contractor.
- e. The term "Project Area" means the site of construction within which are the specified Contract limits of the work to be performed in whole or in part under this Contract.
- f. The term "Engineer" means the Owner's Engineer or the person or organization engaged to perform these services for the Owner, for the purpose of administering the work embraced in this Contract, the said Engineer acting directly or indirectly through any Assistant. The "Resident Engineer" is the Engineer who will represent the Owner and personally be present at the job site.
- g. The term "Site" means the Mariaville WTP, Duaneburg, NY within which the Project Area is situated.
- h. The term "Contract Documents" means and shall include the Documents listed in Article 3 of the Agreement.
- i. The term "Drawings" or "Contract Drawings" means the drawings listed in the Schedule of Drawings.
- j. The term "Technical Specifications" or "Supplemental Technical Specifications" means that part of the Contract Documents which describes, outlines and stipulates the quality of materials to be furnished, the quality of workmanship required, measurement and payment. The term "Addendum" or "Addenda" means any changes, revisions, or clarifications of the Contract Documents which have been duly issued by the Owner to Documents which have been duly issued by the Owner to prospective Bidders prior to the time of receiving Bids.
- k. "Substantial Completion" means the point at which the Contractor has furnished all equipment and has completed all but minor "punch list" items of construction as further described on Page 76 of these General Conditions.

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TOWN OF DUANESBURG, NY
MARIAVILLE WTP / NYS CONTRACT NUMBER # DEC01-C0079900-3350000
ULTRA-VIOLET (UV) DISINFECTION PROJECT
CONTRACT No. T01-G-21 GENERAL

- l. "Performance Testing" means the testing of the equipment and materials constructed and installed as part of the contract to demonstrate compliance with the requirements of the specifications.
- m. The terms "furnish and install" shall be considered the same as "manufacture and supply". In addition, the "manufacturer", "supplier", and "installer" shall all reference a single bidder.

102. SUPERINTENDENCE BY CONTRACTOR

- a. Except where the Contractor is an individual and gives his personal superintendence to the work, the Contractor shall provide a competent superintendent, satisfactory to the Owner and the Engineer, for the work at all times during working hours with full authority to act for him. The Contractor shall also provide an adequate staff for the proper coordination and expediting of his work. Should, in the opinion of the Engineer, any language barrier exist between the superintendent and the Engineer, the Contractor will employ a qualified interpreter.
- b. Unless otherwise specified in the SPECIAL CONDITIONS, the Contractor shall lay out his work including all survey required and he shall be responsible for all work executed by him under the Contract. He shall verify all figures, elevations, etc. before proceeding with the work and will be held responsible for any error resulting from his failure to do so.

103. SUBCONTRACTS

- a. The Contractor shall not execute an agreement with any Subcontractor or permit any Subcontractor to perform any work included in this Contract until he has submitted a Non-Collusive Affidavit from the Subcontractor on the form shown in the "Invitation for Bids, Instructions and Forms" and has received written approval of such Subcontractor from the Owner. Unless specifically permitted otherwise, the Contractor shall perform with his own organization and with the assistance of workmen under his immediate superintendence work amounting to not less than 50 per cent of the original total Contract value for the project, exclusive of specialty items not commonly found in contracts for similar work or which require highly specialized knowledge, craftsmanship or equipment, not ordinarily available to the organization of contractors performing work of the character embraced in this Contract. Specialty items, if any, shall be specified elsewhere.
- b. The Contractor shall not execute an agreement with any Subcontractor or permit any Subcontractor to perform any work included in this Contract until he has submitted a "Certification by Proposed Subcontractor Regarding Equal Employment Opportunity" in the form shown in the "Invitation for Bids, Instructions and Forms".
- c. No proposed Subcontractor shall be disapproved by the Owner except for cause.
- d. The Contractor shall be as fully responsible to the Owner for the acts and omissions of his Subcontractors, and of persons either

DELAWARE ENGINEERING, D.P.C.

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directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.
e. The Contractor shall cause appropriate provision to be inserted in all Subcontracts relative to the work to require compliance by each Subcontractor with the applicable provisions of the Contract for the work embraced in this Contract.
f. Nothing contained in the Contract shall create any contractual relation between any Subcontractor and the Owner.

104. OTHER CONTRACTS

a. The Owner reserves the right to let other Contracts in connection with this work. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and/or coordinate his work with theirs.

b. The Owner may award, or may have awarded other Contracts for additional work, and the Contractor shall cooperate fully with such other Contractors, by scheduling his own work with that to be performed under other Contracts as may be directed by the Owner. The Contractor shall not permit or commit any act which will interfere with the performance of work by any other Contractor as scheduled.

c. Wherever work being done by the Municipal forces, or other Contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Owner, to secure the completion of the various portions of the work in general harmony.

105. FITTING AND COORDINATION OF THE WORK

The Contractor shall be responsible for the proper fitting of all work and for the coordination of the operations of all trades, Subcontractors or materialmen engaged upon this Contract. He shall be prepared to guarantee to each of his Subcontractors the locations and measurements which they may require for the fitting of their work to all surrounding work. The Contractor shall, at his own expense, effect all cutting, fitting, or patching of his work required to make the same conform to the Contract Drawings and Specifications and, except with the consent of the Owner, not to cut or otherwise alter the work of any other Contractor.

106. MUTUAL RESPONSIBILITY OF CONTRACTOR

If, through acts of neglect on the part of the Contractor, any other Contractor or Subcontractor shall suffer loss or damage on the work, the Contractor shall settle with such other Contractor or Subcontractor by agreement or arbitration, if such other Contractor or Subcontractor will so settle. If such other Contractor or Subcontractor shall assert any claim against the Owner on account of any damage alleged to have been so sustained, the Owner will notify the Contractor, who shall defend at his own expense, any suit based upon such claim, and, in any judgment or claims against the Owner, shall pay or satisfy such judgment or claim and pay all costs and expenses in connection therewith and will in all other respects, including, but not limited to, attorney's fees and court costs, hold harmless the Owner and Engineer.

107. PROGRESS SCHEDULE

The Contractor shall (unless a Pre-Award Progress Schedule has been submitted and approved) submit within seven (7) calendar days after execution of the Agreement, a carefully prepared realistic Progress Schedule showing the proposed dates of starting and completing of each and every item of work on each and every selection of work in accordance with these Specifications.

108. PAYMENT TO CONTRACTOR

1. Partial Payments

The Contractor shall prepare his requisition for partial payment as of the last day of the month and submit it, with the required number of copies, to the Engineer for his approval. The amount of the payment due the Contractor shall be determined by adding to the total value of work completed to date, the value of materials properly stored on the site and deducting (1) five percent (5%) of the total amount, to be retained until final payment and (2) the amount of all previous payments. The total value of work completed to date shall be based on the estimated quantities of such materials and the invoice prices as evidenced by a supplier's receipt invoice. Copies of all invoices shall be available for inspection of the Engineer.

Monthly or partial payments made by the Owner to the Contractor are monies advanced for the purpose of assisting the Contractor to expedite the work of construction. All material and completed work covered by such monthly or partial payments shall remain the property of the Contractor and he shall be responsible for the care and protection of all materials and work upon which payments have been made. Such payments shall not constitute a waiver of the right of the Owner to require the fulfillment of all terms of the Contract and the delivery of all Improvements embraced in this Contract complete and satisfactory to the Owner in all details.

2. Substantial Completion & Final Payment

a. Substantial Completion -

When Contractor considers the entire work ready for its intended use, Contractor shall, in writing to Owner and Engineer, certify that the entire work is substantially complete, provide acceptable as-built information and request that Engineer issue a certificate of Substantial Completion. Within a reasonable time thereafter, Owner, Contractor and Engineer shall make an inspection of the work to determine the status of completion and review as-built information to determine its completeness. If Engineer does not consider the work substantially complete or if as-built information is not complete, Engineer will notify Contractor in writing giving his reasons therefore. If Engineer considers the work substantially complete and as-builts acceptable, Engineer will prepare and deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven (7) days after receipt

of the tentative certificate during which he may make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the work is not substantially complete, Engineer will within fourteen (14) days after submission of the tentative certificate to Owner notify Contractor in writing, stating his reasons therefore. If, after consideration of Owner's objections, Engineer considers the work substantially complete, Engineer will within said fourteen days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as he believes justified after consideration of any objections from Owner. At this time, and contingent upon prior acceptance of as-built information, the Owner shall release the 5% retainage and hold twice the value of the punch list items. Those items will be paid when completed in accordance with the contract and must all be completed at final payment. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, maintenance, heat, utilities and insurance. Unless Owner and Contractor agree otherwise in writing and so inform Engineer prior to his issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

Owner shall have the right to exclude Contractor from the work after the date of Substantial Completion, but Owner shall allow Contractor reasonable access to complete or correct items on the tentative list.

b. Final Payment -

After final inspection and acceptance by the Owner of all work under the Contract, the Contractor shall prepare his requisition for final payment which shall be based upon the carefully measured or computed quantity of each item of work at the applicable unit prices stipulated in the Agreement. The total amount of the final payment due the Contractor under this Contract shall be the amount computed as described above less all previous payment. Final payment to the Contractor shall be made subject to his furnishing the Owner with a release in satisfactory form of all claims against the Owner arising under and by virtue of his Contract, other than such claims, if any, as may be specifically excepted by the Contractor from the operation of the release as provided elsewhere herein. Along with the final payment application, the contractor shall provide a Maintenance Bond to be in effect for one (1) year from substantial completion, if required by the project (required for TDI-G-21).

c. The Owner, before paying the final estimate, may require the Contractor to furnish releases or receipts from all subcontractors having performed any work and all persons having supplied materials, equipment (installed on the Project) and services

to the Contractor, if the Owner deems the same necessary in order to protect its interest. The Owner, however, may if he deems such action advisable, make payment in part or in full to the Contractor without requiring the furnishing of such releases or receipts and any payments so made shall in no way impair the obligations of any surety or sureties furnished under this Contract.

d. Withholding of any amount due the Owner under the Section entitled "LIQUIDATED DAMAGES" under SPECIAL CONDITIONS, shall be deducted from the final payment due the Contractor.

3. Withholding Payments -

The Owner will withhold five percent (5%), or at the discretion of the Owner, the Contractor may have the option to submit a Maintenance Bond, to be in effect for the period of one (1) year from final acceptance to protect the Owner, and if it so elects, may also withhold any amounts due from the Contractor to any Subcontractor or material dealers, for work performed or material furnished by them. The foregoing provisions shall be construed solely for the benefit of the Owner and will not require the Owner to determine or adjust any claims or disputes between the Contractor and his Subcontractors or material dealers, or to withhold any monies for their protection unless the Owner elects to do so. The failure or refusal of the Owner to withhold any monies from the Contractor shall in no way impair the obligations of any surety or sureties under any bond or bonds furnished under this Contract.

4. Payments Subject to Submission of Certificates

Each payment to the Contractor by the Owner shall be made subject to submission by the Contractor of all written certifications required of him and his Subcontractors by the Section entitled CONTRACTOR'S CERTIFICATES under the GENERAL CONDITIONS.

109. CHANGES IN THE WORK

1. The Owner may make changes in the work required to be performed by the Contractor under the Contract by making additions thereto, or by omitting work therefrom, without invalidating the Contract.

2. Except for the purpose of affording protection against any emergency endangering life or property, the Contractor shall make no change in the materials used or in the specified manner of constructing and/or installing the improvements or supply additional labor, services or materials beyond that actually required for the execution of the Contract, unless in pursuance of written order from the Owner authorizing the Contractor to proceed with the change. No claim for an adjustment of the Contract price will be valid unless so ordered.

3. The Contractor agrees to perform any of the aforementioned changed work, along with all other required work found under the Contract, without delay and in accordance with good construction practices.

4. These changes outlined above may be made without relieving or releasing the Contractor from any of his obligations under the Contract provisions, and without affecting the validity of the

guaranty bonds, and without relieving or releasing the surety or sureties of said bonds. All such work shall be executed under the terms of the original Contract unless it is provided otherwise.

5. All adjustments to the Contract payment provisions will be made in accordance with the following paragraphs.

6. If applicable unit prices are contained in the Agreement (established as a result of either a Unit Price Bid or a Supplemental Schedule of Unit Prices), the Owner may order the Contractor to proceed with desired changes in the work, the value of such changes to be determined by the measured quantities involved and the applicable unit prices specified in the Contract.

7. If applicable unit prices are not contained in the Agreement, the Owner shall, before ordering the Contractor to proceed with desired changes, request an itemized proposal from him covering the work involved in the change after which the procedure shall be as follows:

a. If the change in the work involves additional work, the procedure shall be as follows:

1) If the proposal is acceptable, the Owner will prepare the Change Order in accordance therewith for acceptance by the Contractor; or

2) If the proposal is not acceptable and prompt agreement between the two parties cannot be reached, the Owner may order the Contractor to proceed with the work on Cost-Plus-Limited Basis. A Cost-Plus-Limited Basis is defined as the net cost of the work to the Contractor plus an allowance to cover overhead and profit, as stipulated below, the total cost not to exceed a specified amount. The following allowances for overhead and profit are hereby established as reasonable and shall apply:

a) Fifteen percent (15%) of the net cost of all labor furnished by the Contractor. For all labor the Contractor shall receive the rate of wage actually paid as shown by his certified payroll, which shall be at least the minimum rate established by the Contract Documents. For all foremen in direct charge of the work, the Contractor shall receive the actual wage paid the foreman, as shown on his certified payroll. No part of the salary or expense of anyone above the grade of foreman and having general supervision of the work will be included in the labor item.

b) For the cost of all insurance and taxes imposed by law on labor employed on the work, the Contractor shall receive the actual amount paid.

c) Fifteen percent (15%) of the net cost of all materials used by the Contractor, less any allowable cash discounts, delivered on the work including delivery charges as shown by original receipted bills.

d) Five percent (5%) on all subcontracts or subcontractors used to complete the changes in work.

e) Rental rates for any power operated machinery, trucks or equipment, which it may be found necessary to use on Cost-Plus-Limited work shall be negotiated between the Engineer and the Contractor. These rates shall be reasonable and shall be based on those rental rates prevailing in the area where such work is to be done, and they shall be agreed upon in writing before the work is begun. In no case

shall the rental rates exceed the rates set up in the current edition of the "Associated Equipment Distributors Compilation of Rental Rates for Construction Equipment". Those rates shall include all repairs, fuel, lubricants, taxes, insurance, depreciation, storage and all attachments complete, ready to operate, but excluding operators. Operators and oilers (tenders) shall be paid as states hereinabove for labor. No percentage for overhead and profit shall be added to the amounts of equipment rental prices agreed upon, but the price agreed upon shall be the total compensation allowed for use of such equipment.

b. If the change in the work requires a reduction in the work involved, the procedure shall be as follows:

1) If the proposal is acceptable, the Owner will prepare the Change Order in accordance therewith for acceptance by the Contractor; or

2) If the proposal is not acceptable and prompt agreement between the two parties cannot be reached, the Engineer shall fix the cost value of the credit. The Owner may then order the Contractor to proceed with the work. Should the Contractor disagree with the cost value of the credit fixed by the Engineer, he may appeal the same in accordance with the procedures outlined in the GENERAL CONDITIONS, ARBITRATION AND LITIGATION.

8. Each Change Order shall include in its final form:

a. A detailed description of the change in the work.

b. The Contractor's proposal (if any) or a confirmed copy thereof.

c. A definite statement as to the resulting change in the Contract price and/or time.

d. The statement that all work involved in the change shall be performed in accordance with Contract requirements except as modified by the Change Order.

9. Contractor shall not take advantage of any obvious error in the specifications or any such error in the drawings or other Contract Documents. Any obvious error or discrepancy in or between any of the Contract Documents will be immediately reported to the Engineer who shall make such corrections and interpretations as may be deemed necessary for the completion of the work in a satisfactory and acceptable manner.

110. CHANGES IN SUBSURFACE CONDITIONS

In the event the Contractor shall, during the process of the work, encounter subsurface conditions (other than seasonal variations) such as rock, unstable/unsuitable ground, etc., but excluding utilities, which materially differ from those shown on or implied by the Contract Drawings or Specifications, and if said conditions could not reasonably have been foreseen by an inspection of the site prior to the Bid, and, further, if these changed subsurface conditions cause a loss to the Contractor, the Contractor shall be entitled to submit a request for additional compensation in accordance with "Claims for Extra Cost" of the General Conditions. The Contractor shall not be entitled to submit a request for additional compensation for changed subsurface conditions which vary seasonally including, but not limited to, groundwater rise and fall, freezing/frost, etc.

Changed existing utility locations from those shown or implied by the Contract Drawings shall not be the basis of a claim except as provided under "EXISTING UTILITIES, STRUCTURES AND FIXTURES" of the GENERAL CONDITIONS.

Notice of the changed condition must be given the Engineer and Owner as soon as the event occurs, so that the Engineer and Owner will have an opportunity to investigate the same and make any alteration which, in the sole discretion of the Engineer or Owner may be necessary. Such notice is a material condition which must be adhered to by the Contractor.

Prior to the Engineer or Owner giving any consideration to the Contractor's request for additional compensation, the Contractor shall be obligated to submit a detailed description of the change.

The Engineer shall investigate the facts and shall notify the Owner whether the conditions are or are not materially different from those shown or implied by the Contract Drawings or Specifications. The Owner shall then notify the Contractor of his decision.

In the event of a favorable decision by the Owner, the Contractor shall be entitled to additional compensation and the amount of the additional compensation shall be determined in accordance with the provisions of the GENERAL CONDITIONS, CHANGES IN THE WORK.

In the event of an unfavorable decision by the Owner, the Contractor shall have the right to contest said decision as provided for under the provisions of this Contract.

111. CLAIMS FOR EXTRA COST

a. All claims between the parties, including all claims for additional compensation and/or additional time, arising out of, or in any way related to this Contract and/or the performance of the same, or its interpretation, except those disputes covered by Federal Labor Standards Provisions under GENERAL CONDITIONS, PART 11, shall within ten (10) days of the event or action giving rise to the claim be presented to the Engineer. All papers pertaining to claims shall be filed in quadruplicate. Such notice need not detail the amount of the claim but shall state the facts surrounding the claim in sufficient detail to identify the claim, together with its character and scope. In the meantime, the Contractor shall proceed with the work as directed. Any claim not presented within the time limit specified in this paragraph shall be deemed to have been waived, except that if the claim is of a continuing character and notice of the claim is not given within ten (10) days of its commencement, the claim will be considered only for a period commencing ten (10) days prior to the receipt by the Engineer of notice thereof. The Contractor shall in no case allow any claim or dispute delay the work.

b. Within ten (10) days after the initial notice of a claim as described above, the Contractor shall prepare and submit the claim in its final form complete with costs and all supporting data. Should the claim be of a continuing nature, it shall be submitted in final form as of the last day of each month during its continuance.

c. As soon as practicable after the final submission of all information, the Owner shall make a determination of any claim. Said

decision of the Owner shall be a condition precedent to any further action on the claim. However, upon certification in writing by the claimant that the claim has been submitted in its final form, the Owner shall be obliged to render a decision on said claim within sixty (60) days of the date of said certification. Should the Owner fail to render his decision within the aforementioned sixty (60) day period, his decision will not be a condition precedent to any further action on the part of the claimant.

d. There shall be no added compensation paid for delay to the Contractor unless the Owner causes said delay by a material breach of this Contract and compliance with the foregoing notice provisions shall be a condition precedent to the prosecution of any such claim. In any claim for delay except for "Excusable Delays and Extension of Time" as defined in the GENERAL CONDITIONS, SECTION "TERMINATION", "DELAYS AND EXTENSIONS", "LIQUIDATED DAMAGES" wherein it is alleged that the Contractor's equipment was caused to remain idle, only one half of the prevailing rental rates for use of said equipment will be considered as damages for idled equipment in order to allow for the absence of fair wear and tear, which is allowed for in prevailing rental rates for equipment usage.

e. Claims for additional compensation for extra work, due to alleged errors in ground elevations, contour lines, or bench marks, will not be considered unless accompanied by certified survey data, made prior to the time the original ground was disturbed, clearly showing that errors exist which resulted, or would result, in handling more material, or performing more work, than would be reasonably estimated from the Drawings and maps issued.

f. If, on the basis of the available evidence, the Owner determines that an adjustment of the Contract Price and/or Time is justifiable, the procedure shall be as provided in Sections "CHANGES IN THE WORK" or "TERMINATIONS, DELAYS AND EXTENSIONS, LIQUIDATED DAMAGES" of the GENERAL CONDITIONS, PART 11.

g. In the event of an unfavorable decision by the Owner, the Contractor shall have the right to contest said decision as provided for under the provisions of the Contract.

112. TERMINATION; DELAYS AND EXTENSION; LIQUIDATED DAMAGES

a. Termination of contract. For its own convenience the Owner may, at any time prior to the issuance of a Notice to Proceed, void the Contract by giving unequivocal and unconditional written notice of such avoidance to the Contractor and in the event of such avoidance, the Owner will not be liable to the Contractor for any claims or losses, including anticipated loss of profit and monies expended in anticipation of performance under the Contract.

At any time subsequent to the Notice to Proceed the Owner may, at its own convenience, terminate the Contract by giving unequivocal and unconditional written notice of such termination to the Contractor. In the event of such termination by the Owner, the Owner shall be responsible to the Contractor for the following monies only, which

monies shall be subject to legitimate charges of the Owner against the Contractor:

1. All reasonable costs incurred by the Contractor in performance of or in anticipation of performance of the Contract provided the Contractor shall take all reasonable steps to mitigate such damages including the return and/or resale of materials ordered; and
 2. A mark-up of 10% for profit and 10% for overhead on the reasonable cost of the work completed and in place, in accordance with the Contract Drawings and Specifications, to the date of termination. The Contractor shall remain responsible for the work completed, in accordance with the Contract provisions.
- Should any work under this Contract be subject to, or terminated by the action of any third party, governmental unit or court due to any ecological or other reason, the rights of the Contractor to recover from the Owner shall be determined as set forth above.
- The Owner may give notice in writing to the Contractor and his Surety of any material breach of the Contract by the Contractor to include but not be limited to any of the following:
- a) Failure to begin work under the Contract within the time specified.
 - b) Failure to perform the work with sufficient workmen, equipment or materials to insure the prompt completion of said work.
 - c) Unsuitable performance of the work or failure to perform anew such work as shall be rejected as defective and unsuitable.
 - d) Neglecting or refusing to remove material rejected as defective and unsuitable.
 - e) Discontinuing the suitable prosecution of the work for a period of 72 hours, excluding Sundays and holidays without written authorization of the Engineer.
 - f) Failure to commence discontinued work within 48 hours after notice to resume (excluding Sundays and holidays).
 - g) Becoming insolvent or declared bankrupt, or commits any act of bankruptcy or insolvency.
 - h) Allowing any final judgment to stand against him unsatisfied for a period of ten (10) calendar days.
 - i) Making an assignment for the benefit of creditors.
 - j) Violating any covenants contained in the Contract Documents.
- The Contractor or Surety within a period of ten (10) calendar days after such notice shall take all practical action to correct said material breach. Should said action fail to meet with the approval of the Owner, the Owner may, at its discretion, order the Surety to complete the work or, without violating the Contract, take the prosecution of the work out of the hands of said Contractor and Surety.
- The Owner may appropriate or use any or all materials and equipment on the ground as may be suitable and acceptable and may enter into an agreement, either by negotiation or public letting, for the completion of said Contract according to the terms and provisions thereof, or use such other methods or combinations thereof, as in its opinion shall be required or desirable for the completion of said Contract in an

- acceptable manner. All costs and charges incurred by the Owner together with the cost of completing the work under Contract, shall be deducted from any monies due to which may become due said Contractor. In case such expense shall exceed the sum which would have been payable under the Contract, then the Contractor and the Surety shall be liable and shall pay to the Owner the amount of said excess.
- b. Excusable Delays and Extensions of Time. The right of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with liquidated damages for any delays in the completion of the work due:
 1. To any acts of the Government, including controls or requisitioning of materials, equipment, tools, or by labor by reason of war, National Defense, or any other national emergency.
 2. To any acts of the Owner, its Engineer or Agents; or injunction or litigation against said Owner.
 3. To causes not reasonably foreseeable by the parties to this Contract at the time of the execution of the Contract which are beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of the public enemy, act of another Contractor in the performance of some other Contract with the Owner, fires, floods, epidemics, quarantine, restrictions, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones and other extreme weather conditions; and
 4. To any delay of any Subcontractor occasioned by any of the causes specified in subparagraphs 1, 2 and 3 of this paragraph "b".Provided, however, that the Contractor promptly notify the Owner within ten (10) days in writing of the cause of the delay. Upon receipt of such notification, the Owner shall ascertain the facts and the cause and extent of delay. If, upon the basis of the facts and the terms of this Contract, the delay is properly excusable, the Owner shall extend the time for completing the work for a period of time commensurate with the period of excusable delay.
- No claim for damages or any claim other than for an extension of time as herein provided shall be made or asserted against the Owner by reason of any delay.
- c. Liquidated Damages for Delay. If the work be not completed within the time stipulated in Section - TIME FOR COMPLETION/NOTICE TO PROCEED under SPECIAL CONDITIONS, including any extensions of time for excusable delays as herein provided, the Contractor shall pay to the Owner as fixed, agreed, and liquidated damages (it being impossible to determine the actual damages occasioned by the delay) for each calendar day of delay, until the work is completed, the amount as set forth in Section - LIQUIDATED DAMAGES under SPECIAL CONDITIONS and the Contractor and his sureties shall be liable to the Owner for the amount thereof.
- 113. ASSIGNMENT OR NOVATION.**
- The Contractor shall not assign or transfer, whether by an assignment or novation, any of its rights, duties, benefits, obligations, liabilities or responsibilities under this Contract without the

written consent of the Owner; provided, however, that assignments to banks, trust companies, or other financial institutions may be made without the consent of the Owner. No assignment or novation of this Contract shall be valid unless the assignment or novation expressly provides that the assignment of any of the Contractor's rights or benefits under the Contract is subject to a prior lien for labor performed, services rendered and materials, tools and equipment supplied for the performance of the work under this Contract in favor of all persons, firms or corporations rendering such labor or services or supplying such materials, tools or equipment.

114. ENGINEER'S AUTHORITY

The Engineer will decide all questions which may arise in relation to the work and the construction thereof. The Engineer's estimates and decisions shall be final and conclusive, except as herein otherwise expressly provided. In case any question shall arise between the parties hereto relative to said Contract, the determination or decision of the Engineer shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this Contract affected in any manner or to any extent by such question.

115. TECHNICAL SPECIFICATIONS AND CONTRACT DRAWINGS

Anything mentioned in the Technical Specifications and not shown on the Contract Drawings or shown on the Contract Drawings and not mentioned in the Technical Specifications shall be of like effect as if shown on or mentioned in both. In case of difference between the Contract Drawings and Technical Specifications, the Technical Specifications shall govern. In case of any discrepancy in the Contract Drawings or Technical Specifications, the matter shall be immediately submitted to the Owner without whose decision said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense.

116. SHOP DRAWINGS

a. All required shop drawings, machinery details, layout drawings, working drawings, material and equipment descriptions, etc., shall be submitted to the Engineer in four (4) copies for review sufficiently in advance of requirements to afford ample time for checking, including time for correcting, resubmitting and rechecking if necessary. One (1) week should be allowed for checking from the date of receipt by the Engineer. The Contractor, with the approval of the Engineer, may submit manufacturer's literature as a substitute for, or supplement to, the shop drawings, etc. The minimum size for any submission shall be 8 - 1/2" x 11" and the maximum size shall be the size of the Contract Drawings. All shop drawings, etc. and/or printed matter submitted shall be properly identified by project and specific application with reference to Contract Drawing number and specification items.

b. No construction, purchase, delivery, installation or work shall be done or made on any part or feature of this Contract which is dependent upon shop drawing review, until such review has been received from the Engineer. If the Contractor proceeds without reviewed shop drawings, it shall be at his own risk. No claim by the

Contractor, for extension of the Contract time will be granted by reason of his failure in this respect. See also "Shop Drawing Schedule" if one is listed in the Special Conditions.

c. Shop drawings, etc., or printed matter shall give all dimensions, sizes, etc. to enable the Engineer to determine the suitability of the construction, installation, material or layout for the purposes intended. Where needed for clarity, the drawings shall include outline, sectional views and detailed working dimensions and designations of the kind of material, machine work, finish, etc., required. The drawings to be submitted shall be reviewed, with the design and function of any equipment or structure and the Contract Drawings.

d. Any shop drawings, etc., submitted without the Contractor's stamp of approval will not be considered and will be returned to the Contractor for proper resubmission. By approving and submitting shop drawings, etc., the Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers and similar data, or will do so and that he has checked and coordinated each shop drawing, etc. with the requirements of the work and of the Contract Documents.

e. If any drawings show variations from the requirements of the Contract because of standard shop practice and/or other reasons, the Contractor shall make specific mention of such variation in his letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment of the contract price and/or time; otherwise, the Contractor will not be relieved of the responsibility for executing the work in accordance with the Contract even though the drawings have been reviewed.

f. After review, the submittals will be stamped "No Exceptions Taken", "Make Corrections Noted", "Amend and Resubmit" or "Rejected - See Remarks". One (1) print of "No Exceptions Taken" or "Make Corrections Noted" drawings will be returned to the Contractor for his use and distribution to his suppliers and/or Subcontractors. In the case of those stamped "Revise and Resubmit" or "Rejected - See Remarks", two (2) prints will be returned to the Contractor who shall make all indicated corrections and resubmit three (3) prints.

g. In any submission which is noted as "No Exceptions Taken" or "Make Corrections Noted", the review shall not extend to details or dimensions and shall not relieve the Contractor from his responsibility for compliance with the Contract Drawings and Specifications.

h. When the Contractor proposes a revision to a previously submitted shop drawing, etc., three (3) copies shall state the reasons for the revision.

i. The Contractor shall furnish as many copies of the submittals as is necessary for the proper coordination of the work, and shall maintain a complete set of the reviewed submittals at the site of the work at all times.

j. Upon the final acceptance of the project, the Contractor shall, on request, furnish the Owner with a complete set of shop drawing

tracings or reproducible cloth reproductions of the shop drawing tracings.

k. There will be no direct payment made for any of the above submittals, or reproducible drawings if required, but the cost thereof shall be considered as included in the general cost of the work.

117. REQUESTS FOR SUPPLEMENTARY INFORMATION

It shall be the responsibility of the Contractor to make timely requests of the Owner for any additional information not already in his possession which should be furnished by the Owner under the terms of this Contract, and which he will require in the planning and execution of the work. Such requests may be submitted from time to time as the need is approached, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay. Each request shall be in writing, and list the various items and latest date by which each will be required by the Contractor. The first list shall be submitted within two (2) weeks after Contract award and shall be as complete as possible at that time. The Contractor shall, if requested, furnish promptly any assistance and information the Engineer may require in responding to these requests of the Contractor. The Contractor shall be fully responsible for any delay in his work or to others arising from his failure to comply fully with the provisions of this Section.

118. MATERIALS AND WORKMANSHIP

a. Unless otherwise specifically provided for in the Technical Specifications, all workmanship, equipment, materials and articles incorporated in the work shall be new and the best grade of the respective kinds for the purpose. Where equipment, materials, articles or workmanship are referred to in the Technical Specifications as "equal to" any particular standard, the Engineer shall decide the question of equality.

b. All work performed and all materials furnished shall be in conformity with the lines, grades, cross sections, dimensions and material requirements, including tolerances shown on the Contract Drawings or indicated in the Specifications.

c. The Contractor shall furnish to the Owner for approval the manufacturer's detailed specifications for all machinery, mechanical and other special equipment, which he contemplates installing together with full information as to type, performance characteristics and all other pertinent information as required, and shall likewise submit for approval as required full information concerning all other materials or articles which he proposes to incorporate in the work. (See Section - SAMPLES, CERTIFICATES AND TESTS under GENERAL CONDITIONS, PART I.)

d. Machinery, mechanical and other equipment, materials or articles installed or used without such prior approval shall be at the risk of subsequent rejection.

e. Materials specified by reference to the number or symbol of a specific standard, such as an ASTM Standard, a Federal Specification or other similar standard, shall comply with requirements in the latest revision thereof and any amendment or supplement thereto in

effect on the date of the Invitation for Bids, except as limited to type, class or grade, or modified in such reference. The standards referred to, except as modified in the Technical Specifications, shall have full force and effect as though printed therein.

f. The Contractor shall employ only competent and skillful men to do the work and whenever the Engineer shall notify the Contractor, in writing, that any man on the work is, in his opinion, incompetent or disorderly, the Contractor shall forthwith remove such person and shall not again employ him on any part of the work without the written consent of the Engineer.

g. The Owner may stop any work or any part of the work under the Contract if the methods or conditions are such that unsatisfactory work might result, if improper materials or workmanship are being used, or unsafe conditions exist.

h. In the event the materials furnished or the work performed deviates from the requirements of the Contract Drawings and Specifications, but, in the opinion of the Owner, constitutes substantial performance, the Owner may accept the same. Should the deviation in question result in a savings to the Contractor, the Owner will be entitled to a credit in the full amount of said savings. Should the deviation in question result in an additional cost to the Contractor, the Owner will not be liable to the Contractor for such additional cost.

If the materials or the finished product in which the materials are used or the work performed are not in conformity with the Contract Drawings and Specifications and have resulted in an inferior or unsatisfactory product, the work and materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

119. SAMPLES, CERTIFICATIONS, AND TESTS

a. The Contractor shall submit all samples, materials, certified test reports, materials certificates, certificates of compliance, affidavits, etc., as called for in the Contract Documents or required by the Engineer, promptly after award of the Contract and acceptance of the Contractor's bonds. No such materials and/or equipment, etc., shall be manufactured or delivered to the site, except at the Contractor's own risk, until the required samples/certificates/tests/etc., have been approved in writing by the Engineer. Any delay in the work caused by late or improper submission of the above for approval shall not be considered just cause for an extension of the Contract time.

b. Samples. Unless otherwise specified, the Contractor shall furnish the required samples without charge, and shall provide every facility for the securing of material samples. He shall provide means and assist in the verification of all scales, measures and other devices which he operates. Samples to be submitted shall be taken by the Engineer or a laboratory approved by the Owner, unless otherwise specified. All materials being used shall be subject to resampling and testing at any time during their preparation and/or use.

All samples submitted by the Contractor shall be properly identified to include, but not be limited to, the project name, project number, item number and description of material, name of the producer, place of origin, and other detailed information which will assist the Engineer passing judgment upon the acceptability of the sample. Certified test reports, materials certificates and/or certificates of compliance required to be submitted with the samples or if permitted, in lieu of samples, shall conform to the requirements stated hereafter.

c. Certified Test Report. A certified test report shall be a document containing a list of the dimensional, chemical, metallurgical, electrical and physical results obtained from an actual test of the materials involved, and shall certify that the materials meet the requirements of the Contract Drawings and specifications, and shall also include the following information:

1. Item number and description of material.
2. Date of manufacture.
3. Date of testing.
4. Name of organization to whom the material is consigned.
5. Quantity of material represented, such as batch, lot, group, etc.
6. Means of identifying the consignment, such as label, marking, lot number, etc.
7. Date and method of shipment.
8. Name of organization performing tests.
9. The certified test report shall be signed by an authorized and responsible agent for the organization manufacturing the material, and it shall be notarized.

d. Materials Certificate. A materials certificate shall be a document certifying that the materials, components and equipment furnished, conform to all requirements of the Contract Drawings and Specifications. The document shall also include the following information:

1. Project to which the material is consigned.
2. Name of Contractor to whom material is supplied.
3. Item number and description of material.
4. Quantity of material represented by the certificate.
5. Means of identifying the consignment, such as label, marking, lot numbers, etc.
6. Date and method of shipment.
7. The materials certificate shall be signed by an authorized and responsible agent for the organization supplying the material, and it shall be notarized.

e. Certificate of Compliance. A certificate of compliance shall be a document certifying that the materials, components and equipment covered by the previously submitted certified test report and materials certificate, have been installed in the work and that they conform to all the requirements of the Contract Drawings and Specifications. The following information shall also be required on the document:

1. Project number.

2. Item number and description of material.
3. Quantity represented by the certificate.
4. Name of manufacturer.
5. The certificate of compliance shall be signed by an authorized and responsible agent for the prime Contractor, and shall be notarized.

f. Tests. Tests as required by the Specifications will be made in accordance with the latest revision to the standard method of American Association of State Highway Officials or the American Society for Testing and Materials in effect at the time of bidding, unless otherwise specified on the Contract Drawings or Special Conditions. Representative preliminary samples of the material proposed for use shall be submitted, without charge, by the Contractor or producer for examination and tested in accordance with specified methods. All materials being used are subject to test or rejection at any time during their preparation and use.

Materials will be rejected by the Engineer whenever, in his judgment, they fail to meet the requirements of the specifications. The Owner reserves the right to retest all materials which have been tested and accepted at the source of supply, after the same have been delivered, and to reject all materials which, when retested, do not meet the requirements of the specifications.

g. Approval/Acceptance. Approval of any materials shall be general only and shall not constitute a waiver of the Owner's right to demand full compliance with Contract requirements. After actual deliveries, the Engineer will have such check tests made as he deems necessary in each instance and may reject materials and equipment and accessories for cause, even though such materials and articles have been given general approval. If materials, equipment or accessories which fail to meet check tests have been incorporated in the work, the Engineer will have the right to cause their removal and replacement by proper materials or to demand and secure such reparation by the Contractor as is equitable.

The Engineer may accept a material or combination of materials and therefore waive non-complying test results provided that all of the following conditions are met:

1. Results of prior and subsequent series of tests of the material or materials from the same source or sources are found satisfactory.
2. The incidence and degree of nonconformance with the specification requirements are, in the Engineer's judgment, within reasonable and practical limits.
3. The Contractor has diligently exercised material controls consistent with good practices in the Engineer's judgment.
4. No adverse effect on the value or serviceability of the completed work could result.

The Engineer may at his discretion waive testing of extremely minor quantities of material when such material is obtained from sources that are prevalently on test.

h. Costs. Except as otherwise specifically stated in the Contract, the costs of sampling and testing will be divided as follows:

1. The Contractor shall furnish without extra cost, including packing and delivery charges, all samples required for testing purposes, except those samples taken on the project by the Engineer and the Owner shall pay all other testing costs of said samples.
2. The Contractor shall assume all costs of retesting materials which fail to meet Contract requirements.
3. The Contractor shall assume all costs of testing materials offered in substitution for those found deficient or for those specified.

120. PERMITS AND CODES

a. The Contractor shall give all notices required by and shall observe and comply with all Federal and State laws and Local by-laws, ordinances and regulations in any manner affecting the conduct of the work, and all such orders or decrees as may exist at present and those which may be enacted later, or bodies or tribunals having any jurisdiction or authority over the work. The Contractor shall indemnify and save harmless the Owner and Engineer and all of its officers, agents and servants against any claim or liability arising from or based on the violation of any such law, by-law, ordinance, regulation, order or decree, whether by himself or his employees. All construction work and/or utility installations shall comply with all applicable ordinances and/or codes including any and all written waivers thereto.

Before commencing any work, the Contractor shall examine the Contract Drawings and Specifications for compliance with applicable ordinances, codes, etc., and shall immediately report any discrepancy to the Owner. Where the requirements of the Contract Drawings and Specifications fail to comply with such applicable ordinances, codes, etc., the Owner will adjust the Contract by Change Order to conform to such ordinances, codes, etc., (unless waivers in writing covering the differences have been granted by the governing body or department) and make appropriate adjustment in the Contract Price or stipulated unit prices.

Should the Contractor fail to observe the foregoing provisions and proceed with the construction or work and/or install any utility at variance with any applicable ordinance, code, etc., including any written waivers (notwithstanding the fact that such installation is in compliance with the Contract Drawings and Specifications), the Contractor shall remove such work without cost to the Owner, but a Change Order will be issued to cover only the excess cost the Contractor would have been entitled to receive if the change had been made before the Contractor commenced work on the items involved.

b. Unless otherwise specified, the Contractor shall at his own expense, secure and pay to the appropriate department of the Local/State/Federal Government the fees or charges for all permits including but not limited to those required for street pavements, sidewalks, sheds, removal of abandoned water taps, sealing of house connection drains, pavement cuts, buildings, electrical, plumbing, water, gas and sewer permits, etc., required by the regulatory body or any of its agencies.

- c. The Contractor shall comply with applicable Local/State/ Federal laws, ordinances, codes, etc., governing the disposal of surplus excavation, materials, debris and rubbish on or off the Project Area and commit no trespass on any public or private property in any operation due to or connected with the work under this Contract.

121. CARE OF WORK

a. The Contractor shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance, whether or not the same has been covered in whole or in part by payments made by the Owner. Materials shall be stored so as to insure the preservation of their quality and fitness for the work and shall be located so as to facilitate prompt inspection. When considered necessary, they shall be placed on wooden platforms or other hard, clean surfaces and not on the ground, and when directed, shall be placed in weatherproof buildings.

Stored materials, even though approved before storage, shall be inspected prior to their use in the work and shall meet the requirements of the specifications at the time it is proposed to use them.

b. The Contractor shall at his sole expense and without any additional cost to the Owner provide watchmen and/or other security measures as may be required to properly protect and care for materials and work completed, and to otherwise prevent property damage and/or personal injury.

c. In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorization from the Owner, is authorized to act at his discretion to prevent such threatened loss or injury, and he shall so act. He shall likewise act if instructed to do so by the Owner. Any compensation claimed by the Contractor on account of such emergency work will be determined by the Owner as provided in the Section - CHANGES IN THE WORK under GENERAL CONDITIONS.

d. The Contractor shall avoid damage as a result of his operations to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed), adjoining property, etc., and he shall at his own expense completely repair any damage thereto caused by his operations.

e. The Contractor shall shore up, brace, underpin, secure, and protect as may be necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be in any way affected by the excavations or other operations connected with the construction of this Contract. The Contractor shall be responsible for the giving of any and all required notices to any adjoining or adjacent property owner or other party before the commencement of any work. The Contractor shall indemnify and save harmless the Owner, and the Engineer, from any damages on account of settlements or the loss of lateral support of adjoining property and from all loss or expense and all damages for which the Owner, and the Engineer, may become liable in consequence of such

injury or damage to the work or adjoining and adjacent structures and/or their premises.

122. ACCIDENT PREVENTION

a. The Contractor shall exercise proper precautions and safety measures at all times for the protection of persons and/or property and shall be responsible for all injuries and/or damages to all persons and/or property, either on or off the site, which occur as a result of his prosecution of the work under this Contract. The safety provisions of all applicable Local/State/Federal laws and building and construction codes shall be observed and the Contractor shall take or cause to be taken such additional safety and health measures as the Owner may determine to be reasonably necessary.

Machinery, equipment and trucks shall be properly guarded, and operational hazards shall be eliminated in accordance with the provisions and intent of the latest revised edition of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable law. A copy of this manual shall be available for reference at all times in the Contractor's field office. The Contractor's attention is also called to the Section - SAFETY PROVISIONS OF THE GENERAL CONDITIONS.

b. The Contractor shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on the work under this Contract in accordance with the requirements of the applicable State/Local/Federal regulations. The Contractor shall promptly furnish the Owner with reports concerning these matters.

c. The Contractor shall indemnify and save harmless the Owner and the Engineer from any and all claims for damages resulting from personal injury, death and/or property damage suffered or alleged to have been suffered, by any person as a result of any work conducted under this Contract. See also the Section INDEMNITY CLAUSE OF THE GENERAL CONDITIONS.

123. SANITARY FACILITIES

The Contractor shall furnish, install, and maintain ample sanitary facilities for the workmen. As the needs arise, a sufficient number of enclosed temporary toilets shall be conveniently placed as required by the Health/Sanitary Codes of the Local/State/Federal Government. Drinking water shall also be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing and governing health/sanitary regulations.

124. USE OF PREMISES

a. The Contractor shall confine his equipment, storage of materials and construction operations to the Contract Limits as shown on the Drawings and as prescribed by ordinances or permits, or as may be

desired by the Owner, and shall not unreasonably encumber the site or public rights-of-way with his materials and construction equipment.

b. The Contractor shall comply with all instructions of the Owner, Engineer and the ordinances, codes, etc. of the Local/State/Federal Government, regarding signs, advertising, traffic, fires, explosives, danger signals, barricades, etc.

c. See also PARTIAL USE OF IMPROVEMENTS OF THE SPECIAL CONDITIONS.

125. REMOVAL OF DEBRIS, CLEANING, ETC.

The Contractor shall, periodically or as directed during the progress of the work, remove and legally dispose of all surplus excavated material and debris, and keep the Project Area and public rights-of-way reasonably clear. Upon completion of the work prior to final inspection, he shall remove all temporary construction facilities, debris and unused materials provided for the work, and put the whole site of the work and public rights-of-way in a neat and clean condition. Trash burning on the site of the work will be subject to prior approval of existing Local/State/Federal regulations.

The cost of all required clean-up shall be included in the various prices bid under this Contract.

126. INSPECTION/ACCEPTANCE OF THE WORK

a. All materials and workmanship shall be subject to inspection, examination or test by the Owner and the Engineer to determine the acceptability of the work at any and all times during manufacture or construction and at any and all places where such manufacture or construction is carried on and the Contractor shall provide proper facilities for such access and inspection. The Owner or Engineer shall have the right to reject defective material and workmanship or require its correction. Unacceptable workmanship shall be satisfactorily corrected. Rejected material shall be promptly segregated and removed from the Project Area and replaced with material of specified quantity without charge therefor. If the Contractor fails to proceed at once with the correction of rejected workmanship or defective material, the Owner may contract or otherwise have the defects remedied or rejected materials removed from the Project Area and charge the cost of the same against any monies which are due or may become due the Contractor, without prejudice to any rights or remedies of the Owner.

b. The Contractor shall furnish promptly all materials reasonably necessary for any tests which may be required. (See Section - SAMPLE, CERTIFICATES AND TESTS, under the GENERAL CONDITIONS, PART I.) All tests by the Owner or Engineer will be performed in such manner as not to delay the work unnecessarily and shall be made as required by the Technical Specifications.

c. If the specifications, the Owner's Engineer's instructions, laws, ordinances, or any public authority require any work to be specifically tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection, and if the inspection is by an authority other than the Engineer (such as a testing organization designated by the Owner), of the date fixed for such inspection. If any work should be covered up without approval or

consent of the Engineer, it must, if required by the Engineer, be uncovered for examination and properly restored at the Contractor's expense.

The Contractor shall notify the Engineer sufficiently in advance of backfilling or concealing any facilities to permit proper inspection. If any facilities are concealed without approval or consent of the Engineer or Owner, the Contractor shall uncover for inspection and recover such facilities all at his own expense, when so requested by the Owner or Engineer.

Should it be considered necessary or advisable by the Engineer or Owner at any time before final acceptance of the entire work to make an examination of work already completed, by uncovering the same, the Contractor shall on request promptly furnish all necessary facilities, labor and material. If such work is found to be defective due to the fault of the Contractor or his Subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, payment under the provisions of the GENERAL SPECIFICATIONS, CHANGES TO THE WORK, shall be allowed the Contractor and he shall, in addition, if completion of the work of the entire Contract has been delayed thereby, be granted suitable extension of time on account of the additional work involved.

d. Inspection of materials and appearances to be incorporated in the improvements embraced in this Contract may be made at the place of production, manufacture or shipment, whenever the quantity justifies it, and such inspection and acceptance, unless otherwise stated in the Technical Specifications, shall be final, except as regards (1) latent defects, (2) departures from specific requirements of the Contract, (3) damage or loss in transit, or (4) fraud or such gross mistakes as amount to fraud. Subject to the requirements contained in the preceding sentence, the inspection of materials as a whole or in part will be made at the Project Site.

e. Neither inspection, testing, approval nor acceptance of the work in whole or in part by the Owner or his agents shall relieve the Contractor or his sureties of the full responsibility for materials furnished or work performed not in strict accordance with the Contract.

127. REVIEW BY OWNER

The Owner, his authorized representatives (as defined under GENERAL CONDITIONS, PART II) shall, at all times have access to and be permitted to observe and review all work, materials, equipment, payrolls, personnel records, employment conditions, material invoices and other relevant data and records pertaining to this Contract, provided, however, that all instructions and approval with respect to the work will be given to the Contractor only by the Owner through his authorized representatives or agents.

128. FINAL INSPECTION

When the improvements embraced in this Contract are substantially completed, the Contractor shall notify the Owner in writing that the work will be ready for final inspection on a definite date which shall

be stated in the notice. The notice will be given at least ten (10) days prior to the date stated for final inspection, and bear the signed concurrence of the representative of the Owner having charge of inspection. If the Owner determines that the status of the improvements is as represented, he will make the arrangements necessary to have final inspection commenced on the date stated in the notice, or as soon thereafter as is practicable. The inspection party may also include the representative of the Federal Agency, other Governmental Agencies, and representative of each department of the Local Government having in charge improvements of like character when such improvements are later to be accepted by the Local Government.

129. DEDUCTIONS FOR UNCORRECTED WORK

If the Owner deems it not expedient to require the Contractor to correct work not done in accordance with the Contract Documents, an equitable deduction from the Contract Price will be made by agreement between the Contractor and the Owner and subject to settlement, in case of dispute, as herein provided.

130. INSURANCE

Within this Article where the terms "Personal Injury" or "Injury" are used, they shall mean both Bodily Injury and Personal Injury as defined hereafter:

"Bodily Injury" means bodily injury, sickness or disease including death at any time resulting therefrom.

"Personal Injury" means false arrest, detention or imprisonment, or malicious prosecution, libel, slander, defamation or violation of right of privacy, wrongful entry or eviction or other invasion of right of private occupancy.

a. Workman's Compensation

The Contractor shall carry or require that there be carried Workman's Compensation Insurance and Employer's Liability Insurance for all his employees and those of his Subcontractors engaged in work on the site, in accordance with State or Territorial Workman's Compensation Law.

b. Manufacturers and Contractors' Liability

The Contractor shall carry or require that there be carried Manufacturers and Contractors' Liability Insurance with limits as specified in the "SCHEDULE OF INSURANCE" under "INSURANCE" of the Special Conditions Form.

1. Personal Injury: This shall protect the Contractor and his Subcontractors and their heirs and assigns against all claims for injury to or death of one, or more than one person, because of accidents which may occur as a result from operations under this Contract, such insurance shall cover the use of all equipment, including but not limited to excavation machinery, trenching machine, crane, hoist, rollers, concrete mixer, motor vehicle, and other equipment as may be specified elsewhere which may be used in the construction of the improvements embraced in this Contract. This Personal Injury Liability Insurance will be needed from commencement of work to final acceptance of the work under this Contract and will

be extended to include insurance for completed operations. The completed operations portion of the Personal Injury Liability Insurance shall be extended for the entire period of the guarantee unless otherwise specified. This insurance shall cover owned, hired, and non-owned equipment.

2. Property Damage: This shall protect the Contractor and his Subcontractors and their heirs and assigns from all claims for property damage which might arise from operations under this Contract.

Property Damage Liability shall be extended to include insurance for completed operations. The completed operations portion of the Property Damage Liability Insurance shall be extended for the entire period of the guarantee unless otherwise specified.

3. Manufacturers and Contractors' Liability shall not exclude liability for personal injury or damage to property as a result of blasting, explosion, collapse of buildings or structures, and damage to underground installations.

a. Automotive Liability

The Contractor shall carry or require that there be carried Automotive Liability Insurance for personal injury and property damage with the limits as specified in the "SCHEDULE OF INSURANCE" under "INSURANCE" of the Special Conditions Form. The Contractor and his Subcontractors and their heirs and assigns from all claims for any personal injury or property damage caused by an occurrence and arising out of the ownership, maintenance or use, including loading and unloading, of any vehicle during the operations under this Contract. This coverage shall include coverage for owned, hired and non-owned vehicles.

d. Other Insurance

The Contractor shall carry or require that there be carried any other insurance as required in the Special Conditions under "INSURANCE".

e. Endorsements

1. Each Contractor's policy shall include a Contractual "HOLD HARMLESS" endorsement and coverage as follows:

The Contractor shall at all times indemnify and save harmless the Owner, the Engineer and their agents and employees, from and against all loss and expense (including attorney's fees) by reason of liability imposed by law upon the Owner or Engineer for damages because of bodily injury, including death at any time resulting therefrom, sustained by any person or persons or on account of damage to property, including loss of use thereof, arising out of or in consequence of the performance of this work, whether such injuries or persons or damage to property is due or claimed to be due to the negligence of the Contractor, his Subcontractors, the Owner or Engineer, their agents or employees, except only such injury or damage as shall be determined by a court of law to have been caused by the sole negligence of the Owner or Engineer.

2. Manufacturers and Contractors' Liability shall further include an endorsement stating:

"This policy shall cover owned, hired and non-owned equipment."

"Coverage for completed operations for both personal injury and property damage extended for the period of guarantee shall be covered under this policy. Manufacturers and Contractors' Liability coverage includes liability for personal injury or damage as a result of blasting, explosion, collapse of buildings or structures, and damage to underground installations."

3. Automotive Liability Insurance shall include an endorsement as follows:

"This policy shall cover owned, hired and non-owned vehicles."

4. Owner's Protective Liability shall include an endorsement as follows:

"The Contractor and the Insurance Company waive governmental immunity as a defense and will not use the defense of governmental immunity in the adjustment of claims or the defense of any suit, action or claim brought against the Owner or Local Government."

5. All POLICIES shall include: (a) endorsement of the work description, contract name, number and location; (b) an endorsement that the Insurance Company will give at least thirty (30) days written notice to the Owner and Engineer prior to any modification or cancellation of any such policy; (c) an endorsement that the Contractor will be responsible for the payment of all premiums and/or charges; (d) an endorsement as follows: "This policy is issued in compliance with the Insurance Requirements of the Contract Documents for the Project and the Insuring Company/Agent is fully cognizant of the requirements as stated therein."

f. Proof of Insurance

Before commencing any work under this Contract, the Contractor shall submit copies of the Certificate/Certificates of Insurance provided to the Owner, Engineer and any others as may be specified in the Special Conditions under "INSURANCE", evidencing that all insurance as required herein is in force. The policies shall be identified by title, policy number, effective date, expiration date, coverages and limits of liability. Required or verbatim quotes of endorsements as required above or by the Special Conditions and non-standard exclusion endorsements for any required policies shall be attached to or be a part of the Certificate/Certificates of Insurance.

The Contractor must either include coverage for his Subcontractors in his policy or submit similar Certificates of Insurance from each of his Subcontractors before their work commences. Each Subcontractor must be covered by insurance of the same character and in the same amounts as the Contractor unless the Contractor and the Engineer agree that a reduced coverage is adequate because of the nature of the particular subcontract work.

During the course of construction under this Contract, whenever there is a lapse in the insurance requirements as stated herein, through cancellation, expiration, failure to renew, or any other cause, the Owner shall order the cessation of all construction activities until such time as the insurance requirements are complied with.

9. Approval/Disapproval of Insurance

Upon receipt of the Certificate(s) of Insurance or binders, the Owner will, in writing, identify the policy and indicate his approval or disapproval. New policies from other companies shall be provided in place of those disapproved. Such insurance shall only be carried with financially responsible insurance companies, licensed in the State and approved by the Owner. All policies shall be kept in force until the Contractor's work is accepted by the Owner (unless otherwise specified). Insurance policies covering all operations under this Contract or, if so noted, for extended operations, which expire before the Contractor's work is accepted by the Owner (or, when noted for extended operations, through the period of warranty) shall be renewed and evidence of same submitted to the Owner for his approval. Refer to Attachment A-1, Program Specific Terms and Conditions

131. PATENTS

The Contractor shall hold and save the Owner and Engineer, their officers and employees, harmless from liability of any nature or kind, including but not limited to court costs and attorneys' fees, for or on account of, any patented or unpatented invention, process, article or appliance manufactured or used in the performance of the Contract, including its use by the Owner, unless otherwise specifically stipulated in the Technical Specifications.

132. WARRANTY OF TITLE

No material, supplies or equipment incorporated or to be incorporated in the work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies and equipment installed or incorporated in the work and, upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed or placed thereon by him to the Owner free from any claims, liens or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by the Contract shall have any right to a lien upon any improvement or appurtenance thereon. Nothing contained in this paragraph, however, shall defeat or impair the right of person furnishing materials or labor to recover under any law permitting such persons to look to funds due the Contractor in the hands of the Owner. The provisions of this paragraph shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

133. GENERAL WARRANTY

Neither the final certificate of payment nor any provision in the Contract nor partial or entire use of the improvements embraced in

this Contract by the Owner or the public shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting therefrom which shall appear within a period of twenty-four (24) months from the date of final acceptance of the work. The Owner will give notice of defective materials and work with reasonable promptness.

134. ARBITRATION AND LITIGATION

Any controversy or claim arising out of or relating to this Contract or the breach thereof shall, at the option of the Owner be settled by arbitration in accordance with the Rules of the American Arbitration Association, and judgment upon the award rendered by the Arbitrator(s) may be entered in any Court having jurisdiction thereof. The Owner shall exercise his option to arbitrate concurrent with the rendering of its final decision on the claim. Should it fail to render a final decision within the prescribed time or fail to exercise its option, the claim will be determined in accordance with the Rules of the American Arbitration Association as herein before stated.

135. RISK OF LOSS

The Owner assumes no responsibility for the condition of existing buildings and structures and other property on the Project Area nor for their continuance in the condition existing at the time of issuance of the Invitation for Bids or thereafter. No adjustment of Contract Price or allowance for any change in conditions which may occur after the Invitation for Bids has been issued will be made except as provided for herein.

136. REQUIRED PROVISIONS DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the Contract shall forthwith be physically amended to make such insertion or correction.

137. CORRECTIONS

The Engineer shall have the right to correct any errors or omissions in the Contract, Specifications or Contract Drawings when such corrections are necessary for the proper expression of their intent. Such corrections shall take effect from the time that the Engineer gives notice thereof, and any alterations in the work rendered necessary thereby shall be made as corrected. Any conflict between the approved Contract Drawings and Specifications, or any disagreement in measurements upon the Contract Drawings must be submitted to the Engineer before construction of the work.

138. SAFETY PROVISIONS

The safety provisions of applicable laws, building and construction codes and the safety codes approved by the State Labor Commissioner shall be observed.

The provisions of the Federal Occupational Safety and Health Administration's "Occupational Safety and Health Standards" and "Safety and Health Regulations for Constructor" shall be observed. Should at any time during the work under this Contract any Local /State /Federal safety inspector visit the site for the purpose of a safety inspection, the Contractor shall immediately notify the Engineer's representative on the job site.

The Contractor shall employ watchmen on the work as necessary and shall erect and maintain such strong and suitable barriers and such lights as will effectually prevent the happening of any accident to health, limb or property. Lights shall be maintained between the hours of sunset and sunrise, and during periods of low visibility. If at any time in the opinion of the Engineer, the work is not properly lighted, barricaded and in all respects safe, both in respect to public travel or adjacent property, public or private, and if under such circumstances the Contractor does not or cannot immediately put the same into proper and approved condition, or if the Contractor or his representative is not upon the ground so that he can be immediately notified of the insufficiency of safety precautions, then the Engineer may put the work into such a condition that it shall be, in his opinion, in all respects safe and the Contractor shall pay all expenses of such labor and materials as may have been used for this purpose by him or by the Engineer. Such action of the Engineer, or his failure to take such action, shall in no way relieve the Contractor of the entire responsibility for any cost, loss or damage by any party sustained on account of the insufficiency of the safety precautions taken by him or by the Engineer acting under authority of this section.

139. NIGHT WORK, SUNDAYS AND HOLIDAYS

Only with the prior approval of the Owner shall night work or work on Sundays or legal holidays requiring the presence of the Engineer or Owner be permitted except for emergencies or as specified elsewhere. Should night work be permitted or required, the lighting and other facilities which are necessary for performing such work must be provided by the Contractor and comply with the applicable safety codes.

140. OBSTRUCTIONS ENCOUNTERED

In addition to showing the construction under this Contract, the drawings show certain information obtained by the Owner regarding conditions and features which exist at the site of the work, both at and below the surface of the ground. The Owner and the Engineer expressly disclaim any responsibility for the accuracy or completeness of the information given on the drawings with regard to the existing conditions and features and the Contractor will not be entitled to any extra compensation on account of inaccuracy or incompleteness of such information except as provided under the Sections "CHANGES IN SUBSURFACE CONDITIONS" and "EXISTING UTILITIES, STRUCTURES AND FIXTURES" of the GENERAL CONDITIONS. It is specifically called to the Contractor's attention that all services, laterals, etc., are not shown on the Contract Drawings and it shall be his responsibility to

locate and protect the same. The information which is shown is only for the convenience of the Contractor, who must verify this information to his own satisfaction. The giving of this information upon the Contract Drawings will not relieve the Contractor of his obligations to support and protect all existing utilities, structures and fixtures which may be encountered during the construction of the work, except as provided in the Section "EXISTING UTILITIES, STRUCTURES AND FIXTURES" of the GENERAL CONDITIONS, and to make good all damages done to such existing utilities, structures and fixtures, as provided within the specifications.

141. EXISTING UTILITIES, STRUCTURES AND FIXTURES

The Contractor will be required, at his own expense, to do everything necessary to support, protect and sustain all sewer, water, gas or service pipes, electric light, power poles, telephone or telegraph poles, manholes, valve boxes, conduits and any and all utilities, structures or fixtures laid across or along the site of the work. The Engineer, as well as the company or the corporation owning said utilities, structures or fixtures must be notified of the same by the Contractor before any such utilities, structures or fixtures are removed or relocated. In case any of the said utilities, structures or fixtures are damaged by the Contractor, they shall be repaired by the Contractor at his own expense, or by the authorities having control of the same and the expense of said repairs shall be deducted from the monies due or to become due the Contractor under this Contract.

Should it become necessary for the Contractor to remove or relocate any utilities, structures or other fixtures, due to a grade and alignment conflict which would require the proposed utility, structure or fixture (not trench excavation, sheeting or other construction features) to occupy the same space as the existing pipe, pole, conduit and/or other fixture, such removal or relocation will be paid for in accordance with the provisions for "CHANGES IN THE WORK" of the GENERAL CONDITIONS. Should said utilities, structures or other fixtures be removed or relocated by the Owner or the respective utility companies at no cost to the Contractor, no payment will be made therefore.

Prior to any removal or relocation of existing facilities, structures or fixtures, the Contractor shall notify the Engineer of the location and the circumstances and shall cease work (which might prove detrimental to the utility, structure or fixture encountered) if necessary until satisfactory arrangements have been made with the Owners of the same to properly care for them.

Should it be necessary to cease work and a delay is caused thereby, the Contractor shall have no claim for damages or any claim other than for an extension of time. See GENERAL CONDITIONS, CLAIMS FOR EXTRA COST.

If the Contractor desires temporary changes of location for his convenience, for any reason whatsoever, of water lines, gas lines, sewer lines, wire lines, service connections, water and gas meter boxes, valve boxes, light standards, cableways, signals and any other

utilities, structures or fixtures, he shall satisfy the Engineer and the Owner that the proposed relocation does not interfere with his or other Contractor's operations, or the requirement of the Contract Drawings and does not cause an obstruction or a hazard to traffic. The Contractor shall make his own request to the utility companies, pipe owners or other parties affected for such relocation work. Such relocation work for the convenience of the Contractor shall be made solely at the Contractor's expense.

The Contractor shall not remove or relocate any utility, structure or fixture without the written approval of the Owner of that utility, structure or fixture unless otherwise shown on the Contract Drawings, Specifications or ordered by the Engineer.

IT WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION AND TYPE OF UNDERGROUND UTILITY PRESENT ON THE SITE. THE FIGURES AND DRAWINGS ARE A GUIDE ONLY OF WHAT MAY BE ON SITE AND AT WHAT LOCATION. THE CONTRACTOR SHALL INVESTIGATE AND VERIFY ALL UTILITIES.

142. CONTROL OF EXISTING FLOWS

During the construction of all proposed work, the Contractor shall take every precaution and do the necessary work to maintain the flow of storm drainage, sanitary sewage and natural flows through the working area. The Contractor is solely responsible for providing his flow control system and there shall be no separate payment for the required work. The Contractor shall be responsible for any flooding or sanitary backup on his work and to the property owners affected by such flooding or backup. The Contractor shall make such provisions as may be required by the Local, State or Federal Health officers or any other public bodies with jurisdiction over the flow of storm drainage, sanitary seepage and natural flows.

In the event the Contractor uses water from natural water sources for his operations, intake method shall be such as to create no harmful effects; and where water is taken from a stream, reasonable flow downstream from the intake shall be maintained.

143. SEWAGE, SURFACE WATER, GROUNDWATER AND FLOOD FLOWS

The Contractor shall furnish all the necessary equipment, shall take all necessary precautions, and shall assume the entire cost of handling any sewage, seepage, storm groundwater, surface water and flood flows which may be encountered at any time during the construction of the work. The manner of providing for these flows shall meet the approval of the Engineer and the entire cost of said work shall be included in the unit or lump sum prices bid for the various items of the work to be done under this Contract.

The Contractor shall employ such feasible and practical methods in his operations as will prevent pollution, sedimentation or the introduction of impurities or other objectionable materials that may become suspended or dissolved in waters reaching streams, ponds, lakes, water supplies or other water bodies.

Water shall not be disposed of by discharging it into any street gutter, drainage channel, existing drainage system, natural stream, waterway, lake, pond or BOD, etc. without the prior approval of the

Authority having jurisdiction thereof. Should such approval be obtained, the Contractor shall insure that no solids, debris, suspended soil particles, impurities or pollutants are allowed to enter the drainage system. The Contractor shall be fully responsible for any damage to these systems resulting from his disposal methods and any necessary measures (such as but not limited to cleanup) required to return the system to preconstruction conditions. In addition to the above, disposal on private property shall be only with the prior written permission of the property owner.

Any water used for any purpose by the Contractor shall not be discharged in such a way as to create pollution, sedimentation or other adverse effects upon the aforementioned streams or waters.

144. CONNECTING TO EXISTING WORK

The Contractor shall remove such existing masonry, concrete, equipment and piping as is necessary in order to make the proper connections to the existing work at the locations shown. Also he shall make the necessary pipe line, roadway and other connections at the several points in order that on completion of this Contract water, sewage, or storm water, as the case may be, will flow through the several pipe lines and structures. Unless otherwise specified herein, no extra payment will be made for this work, but the entire cost of the same shall be included in the unit or lump sum prices bid for the various items of the work to be done under this Contract.

145. EXISTING IMPROVEMENTS

The Contractor shall conduct his work so as to minimize damage to existing improvements, except where specifically stated otherwise in the Specifications or Drawings; it will be the responsibility of the Contractor to restore, as nearly as practical, to their original conditions all improvements on public or private property damaged by his operations.

The utility mains, ducts, poles and services in the construction area, where shown on the Contract Drawings, are at the approximate locations furnished by various utilities concerned. These locations are subject to possible errors in the source of the information; also, errors in transcription. The Contractor shall make certain of the exact location of mains ducts, poles and services prior to excavation or construction near the same.

The various utility companies have been made aware of the pending construction and are generally familiar with the locations of conflicts in the case of the proposed construction. The various utility companies will make all adjustments to their own lines except where otherwise shown on the Contract Drawings or specifications. The Contractor shall give ample notice to the various utilities so that existing lines can be marked in the field and adjustments made. The Contractor shall cooperate fully with the various utilities and shall plan his work so that least interference is caused for all parties concerned. No additional payments shall be made to the Contractor for delays caused by utility interference due to negligence on the part of the Contractor. The Contractor shall support all utility lines uncovered during excavation.

146. ACCESS TO SITE

The Contractor shall make every effort to minimize damage to all access routes, and he shall be required to restore them to their original condition. The Contractor shall acquire all necessary permits for working in, on or from public streets or rights-of-way and for securing additional access rights thereto.

All costs of the removal and restoration to original condition of walls, fences, structures, utility lines, poles, guy wires or anchors, and other improvements required for passage of the Contractor's equipment shall be borne by the Contractor. The Contractor shall notify the proper authorities of the Local Government and all utilities of any intended modification or disruption to their property prior to the start of construction and shall cooperate with them in the scheduling and performance of his operation.

If the Contractor, by direct negotiation and bargain with any land owner, lessee or tenant, has secured for himself any right to use more space or greater privileges than the space provided by the Owner for purposes incidental to the performance of the Contract, he shall, upon request of the Engineer, furnish to the Engineer proper evidence that such additional rights have been properly secured and assurance that no damage to or claim upon the Owner will arise therefrom. The Owner shall not be liable in any way for any expense incurred by the Contractor in securing any such right to use additional property.

The Contractor shall be responsible for and reimburse the Owner and others for any and all losses, damage or expense which the Owner or those others may suffer, either directly or indirectly or through any claims of any person or party, for any trespass outside the spaces and rights-of-way provided by the Owner to the Contractor or any violation or disregard of the terms and conditions established for the use or occupancy of those rights or for negligence in the exercise of those rights.

The Owner may retain or deduct from any sum or sums due or to become due to the Contractor such amount or amounts as may be proper to insure the Owner against loss or expense by reason of the failure of the Contractor to observe the limits and conditions of the rights-of-way, rights-of-access, etc. provided by the Owner.

147. ACCESS TO ADJACENT PROPERTIES

The Contractor shall at all times maintain vehicular and pedestrian access to all properties abutting or adjacent to construction under this Contract, all at the Contractor's sole expense. In the event that normal access is cut off to a particular property due to operations or proposed work called for under the Contract, the Contractor shall, at his sole expense, make other arrangements for access to said property satisfactory to the property owner, tenant and the Engineer.

148. USE OF ROADWAYS

During the progress of the work, the Contractor shall make ample provision for both vehicular and foot traffic on any public road, and shall indemnify and save harmless the Owner from any expense whatsoever due to his operations on/over said roadways. The

Contractor shall also provide free access to all fire hydrants, water and gas valves located along the line or in the vicinity of his work. Gutters and waterways must be kept open or other provisions made for the removal of storm water. Roadway intersections may be blocked but one-half at a time and the Contractor shall lay and maintain temporary driveways, bridges and crossings, such as in the opinion of the Engineer are necessary to reasonably accommodate the public and to provide access to private driveways. In the event of the Contractor's failure to comply with these provisions, the Owner may cause the same to be done, and will deduct the cost of such work from any monies due or to become due the Contractor under this Contract, but the performance of such work by the Owner or at his insistence shall serve in no way to release the Contractor from his general or particular liability for the safety of the public or the work.

149. SNOW REMOVAL

If the Contractor's operations or occupancy of any public street or highway or the rough surfaces over any trench or area being maintained by the Contractor shall interfere with the removal or plowing of snow or ice by the public authorities or land owners, or sanding of icy surfaces in the ordinary manner with regular highway equipment, then the Contractor shall perform such services for the said public authorities or owners without charge; or failing to do so, shall reimburse the said authorities or owners for any additional cost to them for doing such work occasioned by the conditions arising from the Contractor's operations, occupancy or trench surfaces, together with any damage to the equipment of said parties by those conditions, or claims of any party for damage or injury or loss by reason of failure to remove snow or ice or to sand the icy spots under those conditions.

150. WEATHER CONDITIONS/WORK IN FREEZING WEATHER

In the event of temporary suspension of work, or during inclement weather, or whenever the Engineer shall direct, the Contractor will, and will cause his Subcontractors to protect carefully his and their work and materials against damage or injury from the weather. If, in the opinion of the Engineer, any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his Subcontractors so to protect his and their work, such materials shall be removed and replaced at the expense of the Contractor.

Unless written permission be given, work liable to be affected by frost or freezing shall be suspended during freezing weather. When work proceeds under such a condition, the Contractor shall provide approved facilities for heating the materials and for protecting the finished work.

151. INTOXICATING LIQUORS

The Contractor shall neither permit nor suffer the introduction or use of intoxicating liquors upon or about the work specified in this Contract or upon any of the grounds occupied by him or by his employees.

152. BLASTING

If explosives are used, all requirements for transportation, use and storage of Local, State and Federal laws and regulations must be complied with and all necessary permits and licenses obtained by the Contractor at his expense. Permits and licenses must be shown to the Engineer on request. Explosives must be carefully transported, stored, handled and used. The Contractor will keep on the job only such quantities of explosives as may be needed for the work underway and only during such time as they are being used. Explosives shall be stored in a secure manner in locked containers and separate from all tools. Caps and detonators shall be stored separately from other explosives. When the need for explosives is ended, all such material remaining on the job shall be promptly removed from the premises. Care must be taken that no explosives, caps or detonators are stolen or get into the hands of unauthorized persons or left unguarded where they may cause accidents.

An accurate blasting log must be maintained continuously for the duration of the Contract. The log shall record, for each shot, the location, amount of holes, depth, spacing, amount of explosive per hole, number of caps used and the exact date and time of the blast. In addition, a sketch showing displacement of direct and delay caps for each shot shall be recorded.

Explosives shall be of such power and placed and used in such quantities and positions as will not make the excavation unduly large, nor shatter unnecessarily the rock upon or against which the main or structure is to be built, nor injure adjacent persons or property, those portions of the new work or structure as may already be in place or other adjacent pipes, ducts or other structures. The quantity of explosives fired at one blast must be small enough and the time for blasting selected to avoid undue annoyance to persons owning or occupying premises near the work.

The rock must be completely matted when blasts are fired to prevent damage or injury to persons or property or the scattering of broken fragments on the adjacent ground. Adequate warning shall be given all persons in the vicinity before any blast is discharged.

When blasting is required, the operation shall be conducted with such care as not to cause damage to any of the existing underground utilities. Should such occur, the cost of repairs shall be the sole responsibility of the Contractor.

When blasting for trench excavation, each shot sequence shall begin sufficiently ahead of completed work to prevent damage to the completed work which must be properly protected prior to each shot.

The provisions herein shall apply where soil formation resembles rock, whether in trench, structure or general excavation, even if it is of such a nature that it is not classified and paid for as rock excavation, and if so ordered by the Engineer, will apply to openings cut through masonry, nested boulders or other materials not herein classed as rock.

In areas where the proposed construction is built against the face of rock excavation, all loosened or shattered portions of the rock must

be completely removed by barring, wedging or other approved means so the masonry can be built firmly in contact with solid rock. The Contractor shall notify each public utility or others having structures in proximity to the site, and others who may be affected, of his intention to use explosives. Said notice shall be given in accordance with the applicable regulations therefore and sufficiently in advance to enable the involved agencies/companies/persons and the Contractor to take such steps as may be necessary to protect life and property. Such notice shall not in any way relieve the Contractor of responsibility for any damage resulting from his blasting operations. When in sufficiently close proximity to existing gas, water, sanitary, storm, subway or other utilities and structures and all services connected thereto, the Contractor shall remove the rock by methods other than blasting, if necessary, in order to protect said utilities and their services from damage. Approved methods other than blasting are barring and wedging, jack hammer, drilling, rock jacks or other such hand or machinery methods which will not damage the adjacent utility.

No explosives shall be brought into, stored or used on the site of any job by the Contractor unless and until he shall have furnished the Engineer with a satisfactory certificate of insurance showing that the risks arising from the presence of any use of explosives and from blasting are included within the insurance provided by the Contractor to secure his obligations to the Owner. Insurance should also cover damage to any underground utilities or other underground facilities.

153. INDEMNITY CLAUSE

The Contractor shall at all times indemnify and save harmless the Owner, the Engineer and their agents and employees from and against all loss and expense (including attorney's fees) by reason of liability imposed by law upon the Owner or Engineer for damages because of bodily injury, including death at any time resulting therefrom, sustained by any person or persons or on account of damage to property, including loss of use thereof, arising out of or in consequence of the performance of this work, whether such injuries to persons or damage to property is due or claimed to be due to the negligence of the Contractor, his Subcontractors, the Owner or Engineer, their agents or employees, except only such injury or damage as shall be determined by a court of law to have been caused by the sole negligence of the Owner or Engineer.

154. DISPUTES

a. All disputes between the parties arising out of, or in any way related to this Contract and/or the performance of the same, or its interpretation, except those disputes covered by Federal Labor Standards Provisions under GENERAL CONDITIONS, PART II, shall within ten (10) days of the event or action giving rise to the dispute be presented to the Engineer. All papers pertaining to the dispute shall be filed in quadruplicate. Such notice shall state the facts surrounding the dispute in sufficient detail to identify the dispute, together with its character and scope. In the meantime, the Contractor shall proceed with the work under this Contract as

directed. Any dispute not presented within the time limit specified in this paragraph shall be deemed to have been waived, except that if the dispute is of a continuing character and notice of the dispute is not given within ten (10) days of its commencement, the dispute will be considered only for a period commencing ten (10) days prior to the receipt by the Engineer of notice thereof. The Contractor shall in no case allow any dispute to delay the work under this Contract.

b. As soon as practicable after the final submission of all information, the Owner shall make a determination of the dispute. Said decision of the Owner shall be a condition precedent to any further action on the dispute. However, upon certification in writing by the claimant that the dispute has been submitted in its final form, the Owner shall be obliged to render a decision on said dispute within sixty (60) days of the date of said certification. Should the Owner fail to render his decision within the aforementioned sixty (60) day period, his decision will not be a condition precedent to any further action on the part of the claimant.

c. Each decision by the Owner will be in writing and will be mailed to the Contractor by registered or certified mail, return receipt requested, directed to his last known address.

d. In the event of an unfavorable decision by the Owner, the Contractor shall have the right to contest said decision as provided for under the provision of this Contract. The Contractor shall in no case allow the dispute or decision to delay any work, but shall notify the Owner promptly that he is proceeding with the work under protest and he may then except the matter in question from the final release.

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SECTION III

PART III GENERAL SPECIFICATIONS

GENERAL CONDITIONS

(NON-FEDERAL LABOR-STANDARDS PROVISIONS)

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TOWN OF DANVERS, NY
MARIAVILLE WWTP / NYS CONTRACT NUMBER # DEC01-C0079900-3350000
ULTRA-VIOLET (UV) DISINFECTION PROJECT
CONTRACT No. TD1-0-21 GENERAL

GENERAL SPECIFICATIONS

GENERAL CONDITIONS

PART III

(NON-FEDERAL LABOR-STANDARDS PROVISIONS)

TOWN OF DANVERS, NY
MARIAVILLE WWTP / NYS CONTRACT NUMBER # DEC01-C0079900-3350000
ULTRA-VIOLET (UV) DISINFECTION PROJECT
CONTRACT No. TD1-0-21 GENERAL

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301. GENERAL PROVISIONS

The following Non-Federal Labor-Standards Provisions, including the following provisions concerning maximum hours of work, minimum rates of pay, and overtime compensation, with respect to the categories and classifications of employees hereinafter mentioned are included in this Contract pursuant to the requirements of applicable State or local laws, but the inclusion of such provisions shall not be construed to relieve the Contractor or any Subcontractor from the pertinent requirement of any corresponding Federal Labor-Standards Provisions of this Contract. In case the minimum rates of pay set forth below shall be higher than the minimum rates of pay required by or set forth in the Federal Labor-Standards Provisions of this Contract for corresponding classifications, the minimum rates of pay set forth below shall be deemed, for the purposes of this Contract, to be the applicable minimum rates of pay for such classifications. The limitations, if any, in these Non-Federal Labor-Standards Provisions upon the hours per day, per week or per month which employees engaged on the work covered by this Contract may be required or permitted to work thereon shall not be exceeded.

302. OTHER STIPULATIONS

The execution of the Contract by the Bidder binds him to all applicable State Labor Laws and regulations. All such regulations and laws shall be binding to the same extent as if they were copied at length herein.

303. SCHEDULE OF SALARIES AND WAGES

SEE EXHIBITS.

304. CERTIFIED PAYROLLS

The Contractor will submit weekly certified payrolls for themselves and any and all subcontractors to the Owner. Payment applications will be held until all appropriate documents are received and approved.

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SECTION IV

GENERAL SPECIFICATIONS - SPECIAL CONDITIONS

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401. PROJECT SITE

The project includes installation of a new UV System and controller, electrical work, piping & valves, and Dial out system (by Allowance) implementation in the Mariaville WWTP in the Town of Duaneburg, NY. Contractor shall be responsible for final site restoration prior to final payment being released.

Site address is: Route 159/ Duaneburg (T) NY 12056.

402. TIME FOR COMPLETION/NOTICE TO PROCEED

The work which the Contractor is required to perform under this Contract shall be commenced at the time stipulated by the Owner in the Notice to Proceed to the Contractor.

All contract work, shall be completed by March 30, 2023 unless otherwise modified in accordance with the GENERAL CONDITIONS.

The Contractor will be bound to the performance of the Contract when given a Notice To Proceed with the work on or before (weather permitting) 10 days of that notice.

When the Contractor is not given a Notice to Proceed with the work on or before the aforementioned date, the Contractor may elect to void the Contract by giving unequivocal and unconditional written notice of such avoidance to the Owner. Such avoidance shall be effective upon actual receipt by the Owner, prior to the mailing or actual delivery of any Notice to Proceed. In the event of the Owner's failure to issue a Notice to Proceed, the Contractor's sole remedy shall be the avoidance of the Contract as set forth and the Owner will not be liable to the Contractor and monies expended in anticipation of performance under the Contract.

403. LIQUIDATED DAMAGES

As total actual damages for any delay in completion of the work which the Contractor is required to perform under this Contract are not possible to determine at this time, the Contractor and his sureties shall be liable for and shall pay to the Owner the sum of One Hundred Dollars (\$100.00) as fixed, agreed and liquidated damages for each calendar day of delay from the above stipulated completion, or as modified in accordance with the GENERAL CONDITIONS, PART I, until such work is satisfactorily completed and accepted.

404. RESPONSIBILITIES OF CONTRACTOR

Except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, heat, power, transportation, superintendence, temporary construction of every nature, charges, levies, fees or other expenses and all other services and facilities of every nature whatsoever necessary for the performance of the Contract and to complete this Contract in every respect within the specified time.

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405. COMMUNICATIONS

a. All notices, demands, requests, instructions, approvals, proposals and claims must be in writing.

b. Any notice to or demand upon the Contractor shall be sufficiently given if delivered at the office of the Contractor stated on the signature page of the Agreement (or at such other office as the Contractor may from time to time designate) in a sealed, postage-prepaid envelope or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such office.

c. All papers required to be delivered to the Owner shall, unless otherwise specified in writing to the Contractor, be delivered to the Engineer's office, and any notice to or demand upon the Owner shall be sufficiently given if so delivered, or if deposited in the United States mail in a sealed, postage-prepaid envelope, or delivered with charges prepaid to any telegraph company for transmission to said Owner at such address, or to such other representatives of the Owner or to such other address as the Owner may subsequently specify in writing to the Contractor for such purpose.

d. Any such notice shall be deemed to have been given as of the time of actual delivery or (in case of mailing) when the same should have been received in due course of post, or in the case of telegrams, at the time of actual receipt, as the case may be.

406. SIGNS

a. Project signs will not be required unless the item "Project Signs" appears in the Technical Specifications.

b. Subject to prior approval of the Owner as to size, design, type and location and to local regulations, the Contractor and his Subcontractors may erect temporary signs for purpose of identification and controlling traffic. The Contractor shall furnish, erect and maintain such other signs as may be required by Safety Regulations or are necessary to safeguard life and property.

407. CONTRACT DOCUMENTS AND DRAWINGS

The Owner will furnish the Contractor without charge three (3) copies of the Contract Documents, including Technical Specifications and Drawings. Additional copies requested by the Contractor will be furnished at cost.

408. PARTIAL USE OF IMPROVEMENTS

The Owner, at his election, may give notice to the Contractor, and place in use those sections of the work which may have been completed, inspected and can be accepted as complying with the Contract Documents and, if in his opinion, each such section is safe, fit and convenient for the use and accommodation for which it was intended, provided:

a. The use of such sections of the work shall not materially impede the completion of the remainder of the work by the Contractor.

b. The Contractor shall not be responsible for any damages or maintenance costs due directly to the use of such sections.

c. The use of such sections shall in no way relieve the Contractor of his liability due to having used defective materials or to poor workmanship.

d. The period of guarantee stipulated in the Section - GENERAL GUARANTEE under GENERAL CONDITIONS, PART I, shall not begin to run until the date of the final acceptance of all work which the Contractor is required to construct under this Contract.

409. PROJECT PHOTOGRAPHS

a. Progress Photographs

The Contractor shall arrange to take daily photographs of work progress on this project. Photographs shall be taken with a digital camera of at least 3 mega pixel resolution. Computer files of project photographs shall be identified by the Project name, and date taken, and also uniquely numbered. Copies of files of all photographs shall be furnished to the Engineer on compact disk.

All cost of furnishing these photos shall be considered included in the various prices bid for other work under this Contract.

b. Preconstruction Photographs:

Prior to start of construction, the contractor shall thoroughly record by digital photograph and video of the entire existing site. Photographs shall be taken with a digital camera of at least 3 mega pixel resolution. These preconstruction photographs shall show existing conditions clearly. The Contractor shall arrange to furnish the services of a professional commercial photographer to provide Project Photographs for this Contract.

410. INSURANCE

~~SCHEDULE OF INSURANCE: The following will be the limits of coverage required for this Contract:~~

~~A. Manufacturers and Contractors' Liability~~

~~1. Personal Injury Liability Insurance will have limits of \$1,000,000.00 (per occurrence)/\$2,000,000.00 (aggregate), said limits to apply also during the period when completed operations clauses are in effect.~~

~~2. Property Damage Liability Insurance will have limits of \$1,000,000.00 (per occurrence)/\$2,000,000.00 (aggregate), said limits to apply also during the period when completed operations clauses are in effect.~~

~~B. Automotive Liability~~

~~1. Personal Injury Liability Insurance will have limits of \$1,000,000.00 (per person)/\$2,000,000.00 (per occurrence).~~

~~2. Property Damage Liability Insurance will have limits of \$1,000,000.00 (per occurrence).~~

~~C. Owners Protective Liability~~

~~1. Personal Injury Liability Insurance will have limits of \$1,000,000.00 (per occurrence).~~

~~2. Property Damage Liability Insurance will have limits of \$1,000,000.00 (per occurrence).~~

~~D. Builders' Risk Insurance~~

~~1. The Contractor shall carry a \$_____ umbrella. (NOT IN THIS CONTRACT)~~

~~E. Job Office Insurance: (NOT IN THIS CONTRACT)~~

~~2. Job Office Insurance for fire and theft will have the limit of \$50,000 (per occurrence).~~

~~Refer to Attachment A-1, Program Specific Terms and Conditions~~

411. LAYOUT OF WORK

The Contractor shall perform all layout work necessary for the satisfactory execution of the construction as shown on the Contract Drawings and all costs in connection therewith shall be included in the Contract Price(s).

The Contractor shall employ competent personnel to establish line and grade every fifty (50) feet using a hub and tack and a witness stake, or A.O.B.E. This layout will be done prior to any construction and subject to approval of the Engineer.

The Contractor shall be held responsible for the protecting and safeguarding of all control points and bench marks set by the Engineer and his own forces. Any replacement or re-establishment of control points or bench marks by the Engineer shall be at the expense of the Contractor.

The horizontal and vertical control necessary to perform this work are shown on the Contract Drawings.

412. WORK BY OTHERS

Private utilities, Contractors, Developers or other parties may be expected to be working within the Contract Area during this Contract. It shall be the responsibility of the Contractor to coordinate his work under this Contract with the work being done by others in order that the construction may proceed in an efficient and Logical manner. The Contractor shall have no claim or claims whatever against the Owner, Engineer, or other parties due to delays or other reasons caused by the work by others or his failure to coordinate such work; nor will the Owner or Engineer certify to or guarantee the completion time of work being done by others.

The Contractor shall notify pertinent utility companies 72 hours in advance of doing any work at or adjacent to said utilities.

413. SUBSURFACE INFORMATION

The Owner has not had test borings taken in the vicinity of each of the work sites identified in this Contract.

Each Bidder shall be responsible for obtaining such additional data or information as he deems necessary for the preparation of his bid to complete the work required. The Contractor shall have no claim unless actual subsurface conditions, excluding groundwater levels, differ greatly from those represented by the boring logs.

414. RECORD DRAWINGS

Contractor shall maintain on site, 2 sets of the following documents to record actual revisions to the Work as it progresses:

- Contract Drawings
- Project Manual, addenda, change orders and other contract modifications
- Reviewed submittals, shop drawings, product data, and samples

d. daily log of all construction completed

e. Log of all fill materials and pavement delivered to and installed at the site.

The documents shall be kept separate from the documents used for construction. Submittals shall be maintained in a file in the order of their respective specification section number.

Legibly mark each item to record actual construction including:

a. Measured depths of foundations in relation to finish ground floor datum.

b. Measured horizontal and vertical locations of underground utilities and appurtenances, with a at least three tying measurements referenced to permanent surface improvements.

c. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.

d. Field changes of dimension and detail.

e. Details not shown on the original Contract Drawings.

f. Type and location of penetrations through the roof.

Upon completion of the work contractor shall submit these records to the engineer, from which the as-built drawings will be created. The record documents will be turned over to the Owner.

Applications for progress payments will not be approved if the record documents are not kept current. Application for final payment will not be approved until the project record documents are approved.

415. TEMPORARY SHUTDOWN

Contractor shall maintain uninterrupted potable water service to all customers, unless otherwise specifically agreed to by the Town. Confirm the need for and coordinate any required system shutdowns with the Town and Engineer and allow the Town 48 hours advance notice before commencing a shutdown. Contractor shall include all costs associated with supplying water to affected customers for any shutdown which exceeds 8 hours in duration.

All work which requires any existing, waterlines or services, equipment or process to be shut down temporarily shall be coordinated with the Town DEP and WWT operators. Work shall be scheduled and executed to keep inconvenience to an absolute minimum. The Contractor is hereby alerted to the fact that this shall require some work to be performed during unusual hours. Also, once a waterline/facility/process is shut down, work shall continue diligently, without interruption, until the existing main can be returned to service.

There shall be no separate payment for performing the above work, but all costs incidental thereto are considered to be included in the various prices bid under this Contract.

416. "OR EQUAL" CLAUSE

UNLESS OTHERWISE SPECIFIED:

Whenever a material, article or piece of equipment is identified on the Contract Drawings or in the Specifications by reference to manufacturers' or vendors' names, trade names, catalogue numbers, etc., the intent is to establish a standard. Any material, article, or equipment of other manufacturers and vendors of equally high quality (particularly with regard to points specified in the Specifications) which will perform equivalently within the design ranges specified will be equally acceptable provided that the material, article or equipment so proposed is, in the opinion of the Engineer, of equal substance and function. Further, the manufacturer must agree to comply fully with the warranty requirements of the Specifications.

The Contractor may not assume that substitute equipment will be approved by the Engineer and non-approval of said equipment will form no basis for a claim for additional compensation by the Contractor. No substitute equipment will be purchased or installed by the Contractor without the Engineer's written approval. If the Engineer's approval is obtained for alternate equipment, the Contractor shall, at his own expense, make any changes in the structures, building, piping or electrical necessary to accommodate the equipment and if engineering is required due to substitution of other material, the Contractor shall reimburse the Owner for the engineering service.

417. USE OF MANUFACTURED EQUIPMENT

In order to make the maintenance of the equipment items compatible with the Owner's stock on hand, items have been specified by manufacturer name in accordance with their preference. Only upon written approval by the Owner may the Contractor substitute equal equipment in lieu of those specified under the items: Fire Alarm Boxes, Corporation Stops/Water Service, Hydrants, Shutoff Valves, Curb Boxes and Lids, and Tapping Sleeves and Valves.

418. AVAILABILITY OF SITE

As the construction proceeds, if the work need be suspended or delayed by reason of or by any act or omission of the Owner, or because the Owner does not own or has not obtained possession of or has not the right to enter upon land upon which the work is to be performed hereunder, or because of any act or omission of any employee or agent of the Owner or of any other Contractor performing work for the Owner and by reason of the foregoing, the Contractor is not able to complete the work under this Contract within the time specified, and he is not at fault, an extension of time for completion will be granted by the Owner upon proper application for such extension by the Contractor to the Owner in accordance with the provisions relating thereto contained in this Contract. None of the foregoing shall constitute a breach of the Contract on the part of the Owner. No right to charges or claims for damages, or additional compensation, shall inure to or be made by the Contractor against the Owner or any other Contractor for any delays or hindrances for any cause whatever, during the progress of the work or any portion thereof embraced in this Contract, such delays

or hindrances being compensated for by an extension of time as above provided.

419. CONSTRUCTION, EXCAVATION AND DEMOLITION OPERATIONS AT OR NEAR UNDERGROUND FACILITIES

The Contractor's attention is directed to the State of New York, Department of Labor, Board of Standards and Appeals Industrial Code Rule 53 - "Construction, Excavation, and Demolition Operations at or near Underground Facilities", effective April 1, 1975. The Contractor will be required to comply with all applicable requirements of Industrial Code Rule 53. Requests for copies by mail should be directed to State of New York, Department of Labor, Office of Public Information, State Office Building Campus, Albany, New York, 12201; or single copies may be obtained by applying in person at the Department's office in Albany.

420. SHOP DRAWING SCHEDULE

Whenever the article or piece of equipment is identified on the Contract Drawings or in the Specifications by reference to manufacturer's or vendor's name and/or catalog number or as listed below, the Contractor shall furnish complete shop drawings and manufacturer's latest printed instructions for installation within thirty (30) days of Contract award for review in accordance with the General Conditions.

421. PERMITS

Electrical Contractor shall be required to obtain and electrical inspection.

The Contractor shall adhere to NYSDEC Standards and Specifications for Erosion and Sediment Control (i.e., Best Management Practices).

The Contractor shall obtain all other necessary permits as required in "Permits and Codes" of the General Conditions.

422. RESIDENT ENGINEER

The Resident Engineer will be the Owner or his representative who is on the job on a daily basis inspecting all work. The Contractor must direct all correspondence, payment requisitions, requests, questions or any other communications through the Resident Engineer whether these communications are to the "Owner", the "Engineer" or others.

If the Contractor submits a request to use a different material or products than called for in these Plans and Specifications, the Resident Engineer shall provide the Contractor with a determination as to whether said material or product is "equal". All results of material tests, certificates, or product samples shall be directed to the Resident Engineer and the Contractor shall closely coordinate such tests with his construction schedule and the Resident Engineer so that test results/samples/certificates are available for

evaluation at least two weeks prior to using such material and/or products in construction.

All shop drawings shall be submitted to the Resident Engineer. The Resident Engineer shall distribute said drawings for review and return the results of such review to the Contractor. The Resident Engineer will himself perform or request the Engineer to perform the duties required of the Engineer.

423. SEQUENCE OF CONSTRUCTION / SCHEDULE

The Contractor, prior to the start of construction shall submit to the Engineer for approval a detailed schedule for his Sequence of Construction (also see Technical Specification 01520 Proposed Sequence of Construction and "Progress Schedule" of the General Conditions). The Sequence of Construction prepared by the Contractor shall show the schedule of work for each item on the Bid Proposal forms as well as all of the various operations which must be performed to complete this work within the allotted time. It is emphasized that the Contractor must address those portions of the Contract Documents which will have an impact on the sequence of construction, e.g. "Time of Completion/Notice to Proceed", "Work by Others" and "Availability of Site" of the Special Conditions; and Items "Maintenance and Protection of Traffic", "Excavation for Surface Improvement" and "Test Pits" of these Specifications.

424. TEMPORARY SERVICES, AND SANITARY FACILITIES

Each contractor will have to supply their own temporary power, sanitary facilities, water, and phone service.

425. SITE RESTRICTIONS

Contractor's (or subcontractor's) operations shall minimize impact to property owners utilization of their property during the work and shall not impede Property owner's access to their property or facilities.

Job trailers, if required, shall be placed in an area agreed to with the Town.

Work is scheduled to take place within Town and NYS DOT right of ways.

426. PAYMENT APPLICATIONS AND CERTIFIED PAYROLL

Contractor shall submit weekly certified payrolls demonstrating and certifying that all employees have been paid in accordance with all Federal and State wage rate requirements by indicating labor rates, fringes, etc., for each employee by labor category and hours worked each day. Payroll shall be certified by a duly authorized representative of the company and shall be submitted to the Engineer along with the payment application for the covered period. No payment applications will be processed until acceptable certified payroll has been received.

Payment applications can be made on not less than a monthly basis. Contractor shall submit notarized payment requisitions on Standard AIA Forms or similar format to Delaware Engineering, D.P.C., 8-12 Dietz Street, Suite 303, Oneonta, NY 13820 Attention: Bill Brown.

427. PROJECT SECURITY IN LIEU OF BONDS (not allowed)

If the Contractor does not have the ability to secure bonds, the Town will require the Contractor to furnish an irrevocable letter of credit from a USA-based, federally-insured bank or security institution stating that the Contractor has the ability to and shall produce to the Town funds in the amount of 100% of the contract price within 7 calendar days if requested by the Town. The Town prefers bonding but understands that some qualified local contractors are not currently bonded but have the requisite equipment, expertise and financial wherewithal to successfully complete the work. In such cases, the Town is willing to consider this alternative form of project security for this project. However, the Town reserves the right to reject the contractor's bid if the Town is not fully satisfied with the letter of credit.

428. NYS DOT PROVISIONS (not in this contract)

A. The Contractor shall fully comply with NYS DOT requirements.

429. CONFINED SPACE ENTRY

The Contractor is advised that work of this contract may entail entry into confined spaces. The Contractor shall be responsible for compliance with all confined space entry requirements and shall include costs related to this in appropriate base bid work items.

430. LUMP SUM BREAKDOWN

Contractor's schedule of values submitted soon after the Notice to Proceed as well as each payment requisition shall provide at a minimum, a breakdown of lump sum work items as listed in the Instructions to Bidder Item 24 Lump Sum Breakdown. Further breakdown can be provided if desired by the Contractor or Engineer. Also see Instructions to Bidder Item 24 Lump Sum Breakdown.

431. STORMWATER COMPLIANCE

Since the project involves the disturbance of more than one acre, compliance with NYSDEC General Permits is required. A copy of the stormwater pollution prevention plan (SWPPP) is bound separately and shall be used by the General Contractor during construction to comply with stormwater requirements. Project disturbance is less than the one acre threshold, a SWPPP is therefore not required. Standard erosion and sediment control practices are still required per the NYSDEC.

END OF SECTION

SECTION V

OTHER EXHIBITS/SCHEDULES

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EXHIBIT A: PREVAILING WAGE RATE SCHEDULE (S)

- STATE WAGE RATE SCHEDULE

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STATE WAGE RATE SCHEDULE

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Kathy Hochul, Governor

Roberta Reardon, Commissioner

Town of Danesburg
Eric Michelbach
25 South Main Street
Oneonta NY 13820

Schedule Year 2021 through 2022
Date Requested 01/17/2022
PRC# 2022000485

Location Mariaville WWTP
Project ID#
Project Type Purchase and installation of a new UV disinfection system, piping modifications to install UV system, etc.
Electrical work to complete installation of UV units

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 Wage Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2021 through June 2022. 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 NYS DOL website.

NOTICE OF COMPLETION / CANCELLATION OF PROJECT	
Date Completed: _____	Date Cancelled: _____
Name & Title of Representative: _____	

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

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

Introduction

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

Responsibilities of the Department of Jurisdiction

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

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

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

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

Both the PW 16 and PW 200 forms are available for completion online.

Hours

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

There are very few exceptions to this rule. Complete information regarding these exceptions is available on the "Request for a dispensation to work overtime" form (PW30) and "4 Day / 10 Hour Work Schedule" form (PW 30.1).

Wages and Supplements

The wages and supplements to be paid and/or provided to laborers, workers, and mechanics employed on a public work project shall be not less than those listed in the current Prevailing Rate Schedule for the locality where the work is performed. If a prime contractor on a public work project has not been provided with a Prevailing Rate Schedule, the contractor must notify the Department of Jurisdiction (Contracting Agency) who in turn must request an original Prevailing Rate Schedule from the Bureau of Public Work. Requests may be submitted by: mail to NYSDOL, Bureau of Public Work, State Office Bldg., Campus, Bldg. 12, Rm. 130, Albany, NY 12240; 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

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, requires 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 county 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 12240 or by Fax to NYSDOL Apprenticeship Training (518) 487-1161. 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)).

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

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

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

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

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

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

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

Withholding of Payments

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

When the Bureau of Public Work finds that a contractor or subcontractor on a public work project failed to pay or provide the requisite prevailing wages or supplements, the Bureau is authorized by Sections 220-b and 236.2 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 enclosed 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.

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 \$60.00 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 municipally. 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.



Katly Hochul, Governor

Reberia Raanton, Commissioner

Town of Duaneburg
Eric Michellach
55 South Main Street
Geneva NY 13920

Schedule Year 2021 through 2022
Data Requested 01/17/2022
PRC# 2022090486

Location Maraville WWTP
Project ID#
Project Type Purchase and installation of a new UV disinfection system, piping modifications to install UV system, etc.
Electrical work to complete installation of UV units

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 NYS DOL 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) 465-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240

www.labor.ny.gov.

PW 16

Ask.PWAsk@labor.ny.gov

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

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/prevaling 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, www.labor.ny.gov. <https://labor.ny.gov/termsdocs/w/1A999.pdf>
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)

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 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 12240

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.

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 for the classification at which you are working.

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: www.labor.ny.gov

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) 258-4605
Buffalo	(716) 847-7159	Syracuse	(315) 428-4058
Garden City	(516) 228-3815	Ulster	(315) 793-2314
New York City	(212) 932-2419	White Plains	(914) 987-9507
Newburgh	(845) 568-5156		

* 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: _____

PW 101 (4,15)

Prevailing Wage Rates for 07/10/2021 - 03/30/2022
Last Published on Jan 01 2022

Published by the New York State Department of Labor
PRC Number 2022003485

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 works.

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

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

Payrolls and Payroll Records

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

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

Paid Holidays

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

Overtime

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

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

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

Supplemental Benefits

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

Effective Dates

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

Apprentice Training Rates

The following are the allowable ratios of registered Apprentices to Journeyworkers.

For example, the ratio 1:1.33 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.

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 518-497-8588.

WICKS

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

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

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

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

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

Contractors must pay subcontractors within a 7 days period.

(07.15)

Title (Trade)	Ratio
Bollemaker (Construction)	1:1,14
Bollemaker (Shop)	1:1,13
Carpenter (Bldg, J&H, Pile Driver/Dockbuilder)	1:1,14
Carpenter (Residential)	1:1,13
Electrical (Outside) Linemen	1:1,12
Electrician (Inside)	1:1,13
Elevator/Escelator Construction & Modernizer	1:1,12
Glazier	1:1,13
Insulation & Asbestos Worker	1:1,13
Iron Worker	1:1,14
Laborer	1:1,13
Mason	1:1,14
Millwright	1:1,14
Op Engineer	1:1,15
Painter	1:1,13
Plumber & Steamfitter	1:1,13
Roofer	1:1,12
Sheet Metal Worker	1:1,13
Sprinkler Fitter	1:1,12

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 12240

District Office Locations:	Telephone #	FAX #
Bureau of Public Work - Albany	518-457-2744	518-485-0240
Bureau of Public Work - Binghamton	807-721-8005	807-721-8004
Bureau of Public Work - Buffalo	716-647-7159	716-647-7650
Bureau of Public Work - Garden City	516-228-3915	516-794-3516
Bureau of Public Work - Newburgh	845-668-8287	845-668-6332
Bureau of Public Work - New York City	212-632-2419	212-775-3570
Bureau of Public Work - Petchogue	631-687-4682	631-687-4602
Bureau of Public Work - Rochester	585-268-4506	585-268-4708
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	518-467-5689	518-465-1670

Schenectady County General Construction

Bollemaker		01/01/2022					
JOB DESCRIPTION	Bollemaker	DISTRICT 1					
ENTIRE COUNTIES Albany, Broome, Chenango, Columbia, Delaware, Essex, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schoenectady, Schoharie, Tioga, Warren, Washington							
WAGES							
Per hour	07/01/2021						
Bollemaker	\$ 38.59						
SUPPLEMENTAL BENEFITS							
Per hour	07/01/2021						
Journeyman	\$ 25.10	+ 1.24*					
* This portion of the benefit is NOT subject to the SAME PREMIUM as shown for overtime.							
OVERTIME PAY See (B, E, Q, V) on OVERTIME PAGE							
HOLIDAY							
Per hour	07/01/2021						
Journeyman	\$ 25.10	+ 1.24*					
* This portion of the benefit is NOT subject to the SAME PREMIUM as shown for overtime.							
REGISTERED APPRENTICES							
Wages per hour (1/2) year terms at the following percentage of Journeyman's wage.							
1st	2nd	3rd	4th	5th	6th	7th	8th
85%	65%	70%	75%	80%	85%	90%	95%
Supplemental Benefits per hour			07/01/2021				
1st	2nd	3rd	4th	5th	6th	7th	8th
18.79	16.79	19.71	20.81	21.50	22.40	23.31	24.20
+1.24*	+1.24*	+1.24*	+1.24*	+1.24*	+1.24*	+1.24*	+1.24*
* This portion of the benefit is NOT subject to the SAME PREMIUM as shown for overtime.			1-197				

Carpenter - Building 01/01/2022

Carpenter - Building		07/01/2022		07/01/2023		07/01/2024	
JOB DESCRIPTION	Carpenter - Building	DISTRICT 2					
ENTIRE COUNTIES Albany, Fulton, Greene, Montgomery, Rensselaer, Saratoga, Schoenectady, Schoharie							
WAGES							
Per hour	07/01/2021	07/01/2022	07/01/2023	07/01/2024			
Carpenter	\$ 32.73	\$ 1.40	\$ 1.25	\$ 1.25			
Floor Coverer	32.73	1.40	1.25	1.25			
Carpet Layer	32.73	1.40	1.25	1.25			
Dry-Wall	32.73	1.40	1.25	1.25			
Diver-Hot Day	61.25	0.00	0.00	0.00			
Diver-Dry Day	33.73	1.40	1.25	1.25			
Diver Tender	33.73	1.40	1.25	1.25			

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (per hour worked):
 - Pile Drivers/Dock Builders shall receive \$0.25 per hour over the journeyman's rate of pay when performing piling/driving/dock building work.
 - Certified welders shall receive \$1.00 per hour over the journeyman's rate of pay when the employee is required to be certified and performs DOT or ABS specified welding work.
 - When an employee performs work within a contaminated area on a State and/or Federally designated hazardous waste site, and where relevant State and/or Federal regulations require employees to be furnished and use or wear required forms of personal protection, then the employee shall receive his regular hourly rate plus \$1.50 per hour.
 - Depth pay for Divers based upon deepest depth on the day of the dive (per diem payment):
 0' to 60' no additional fee
 61' to 100' additional \$.50 per foot
 101' to 150' additional \$0.75 per foot
 151' and deeper additional \$1.25 per foot
 - Penetration pay for Divers based upon deepest penetration on the day of the dive (per diem payment):
 0' to 50' no additional fee
 51' to 100' additional \$.75 per foot
 101' and deeper additional \$1.00 per foot
 - Diver rates applies to all hours worked on dive day.
 Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the 4 Day/10 Hour Work schedule, as your normal schedule, you must submit an Employer Registration for Use of 4 Day/10 Hour Work Schedules, form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman	\$ 23.34
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OVERTIME PAY
See (B, E, Q, X) on OVERTIME PAGE
* Note - Saturday is also payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY
Per hour: See (1) on HOLIDAY PAGE
Overtime: See (B, E, Q, X) on HOLIDAY PAGE
Note: Any holiday which occurs on Sunday shall be observed the following Monday. If Christmas falls on a Saturday, it shall be observed on the prior Friday.

REGISTERED APPRENTICES
ALL APPRENTICES indentured prior to 01/01/2016
Wages per hour (One year terms at the following percentage of journeyman's base wage):

1st	2nd	3rd	4th
55%	60%	70%	80%

Supplemental Benefits per hour:

\$ 12.06	\$ 12.06	\$ 14.80	\$ 14.86
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CARPENTER APPRENTICES indentured after 01/01/2016
Wages per hour (1300 hour terms at the following percentage of journeyman's base wage):

1st	2nd	3rd	4th	5th
55%	60%	65%	70%	80%

Supplemental Benefits per hour:

\$ 12.06	\$ 12.06	\$ 14.66	\$ 14.66	\$ 14.66
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PILEDRIVER/DOCK BUILDER APPRENTICES indentured after 01/01/2016
Wages per hour (1300 hour terms at the following percentage of journeyman's base wage):

1st	2nd	3rd	4th
55%	60%	70%	80%

*Pile Driver/Dock Builder apprentices shall receive an additional \$0.25 per hour worked when performing piling/driving/dock building work.
Supplemental Benefits per hour:

\$ 12.06	\$ 12.06	\$ 14.66	\$ 14.66
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LINOLEUM, RESILIENT TILE, AND CARPET LAYER APPRENTICES indentured after 01/01/2016
Wages per hour (1300 hour terms at the following percentage of journeyman's base wage):

1st	2nd	3rd	4th
55%	60%	70%	80%

Supplemental Benefits per hour:

\$ 12.06	\$ 12.06	\$ 14.66	\$ 14.66
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ADDITIONAL AMOUNTS PAID PER HOUR WORKED TO APPRENTICES FOR SPECIFIC TYPES OF WORK PERFORMED:
 - Certified welders shall receive \$1.00 per hour over the apprentice rate of pay when the apprentice is required to be certified and performs DOT or ABS specified welding work.
 - When an apprentice performs work within a contaminated area on a State and/or Federally designated hazardous waste site, and where relevant State and/or Federal regulations require the apprentice to be furnished and use or wear required forms of personal protection, then the apprentice shall receive his regular hourly rate plus \$1.50 per hour.

Carpenter - Building / Heavy&Highway 01/01/2022

Carpenter - Building / Heavy&Highway		07/01/2021	
JOB DESCRIPTION	Carpenter - Building / Heavy&Highway	DISTRICT 2	
ENTIRE COUNTIES Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauque, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schoenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates			
PARTIAL COUNTIES Orange: The area lying on Northern side of Orange County demarcated by a line drawn from the Bear Mountain Bridge continuing west to the Bear Mountain Circle, continue North on SW to the town of Cornwall where County Road 107 (also known as Quaker Rd) crosses under SW, then east on County Road 107 to Route 32, then north on Route 32 to One Mills Rd, then west on One Mills Rd to Route 94, continue west and south on Route 94 to the Town of Chester, to the intersection of Kings Highway, continue south on Kings Highway to Bellville Rd, west on Bellville Rd to Spikavale Lakes Rd, then south on Spikavale Lakes Rd to Kain Rd, southeast on Kain Rd to Route 17A, then north and southeast along Route 17A to Route 210, then follow Route 210 to N. Border.			
WAGES			
Per hour	07/01/2021		
Carpenter - ONLY for Artificial Turf/Synthetic Sport Surface	\$ 32.08		

Note - Does not include the operation of equipment. Please see Operating Engineers rates.
SUPPLEMENTAL BENEFITS

Per hour:

Journeyman	\$ 24.20
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OVERTIME PAY
See (B, E, Q, X) on OVERTIME PAGE

HOLIDAY
Per hour: See (6) on HOLIDAY PAGE
Overtime: See (B, E, Q, X) on HOLIDAY PAGE

Note: When a holiday falls upon a Saturday, it shall be observed on the preceding Friday. When a holiday falls upon a Sunday, it shall be observed on the following Monday.
An employee taking an unexcused day off the regularly scheduled day before or after a paid Holiday shall not receive Holiday pay.

REGISTERED APPRENTICES
Wages per hour:

One year terms at the following percentage of Journeyman's wage:			
1st	2nd	3rd	4th
55%	60%	70%	80%

Supplemental Benefits per hour:

1st year term	\$ 12.15
2nd year term	12.15
3rd year term	14.80
4th year term	14.80

Carpenter - Heavy&Highway 01/01/2022

Carpenter - Heavy&Highway		07/01/2021	
JOB DESCRIPTION	Carpenter - Heavy&Highway	DISTRICT 2	
ENTIRE COUNTIES Albany, Clinton, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schoenectady, Schoharie, Warren, Washington			
WAGES			
Per hour	07/01/2021		

Carpenter	\$ 34.52
Pile/Driver	34.52
Diver-Wet Day	69.52
Diver-Dry Day	35.52
Diver-Tender	35.52

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (per hour worked):
 - When project contract mandates a single irregular work shift, the employee will receive an additional \$2.00 per hour. A single irregular work shift can start any time from 5:00 p.m. to 1:00 a.m.
 - State or Federal designated hazardous site, requiring protective gear shall be an additional \$2.00 per hour.
 - Certified welders when required to perform welding work will receive an additional \$1.50 per hour.

ADDITIONAL NOTES PERTAINING TO DIVERS/TENDERS:
 - Divers and Tenders shall receive one and one half (1 1/2) times their regular diver and tender rate of pay for Effluent and Slurry diving.
 - Divers and tenders being paid at the specified rate for Effluent and Slurry diving shall have all overtime rates based on the specified rate plus the appropriate overtime rates (one and one half or two times the specified rate for Slurry and Effluent divers and tenders).
 - The pilot of an ADS or submersible will receive one and one-half (1 1/2) times the Diver-Wet Day Rate for time submerged.
 - All crew members aboard a submersible shall receive the Diver-Wet Day rate.
 - Depth pay for Divers based upon deepest depth on the day of the dive (per diam payment):
 0' to 50' no additional fee
 51' to 100' additional \$.50 per foot
 101' to 150' additional \$0.75 per foot
 151' and deeper additional \$1.25 per foot

- Penetration pay for Divers based upon deepest penetration on the day of the dive (per diam payment):
 0' to 50' no additional fee
 51' to 100' additional \$.75 per foot
 101' and deeper additional \$1.00 per foot
 - Diver rates applies to all hours worked on dive day.
 Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Friday, provided the project duration is more than forty (40) hours.
NOTE - In order to use the 4 Day/10 Hour Work schedule, as your normal schedule, you must submit an Employer Registration for Use of 4 Day/10 Hour Work Schedule, form PW30.1, and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
 Per hour:
 Journeyman \$ 23.80

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

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

In the event a Holiday falls on a Saturday, the Friday before will be observed as a Holiday. If a Holiday falls on a Sunday, then Monday will be observed as a Holiday. Employee must work scheduled work day before and after the Holiday.

REGISTERED APPRENTICES
 ALL APPRENTICES indentured prior to 01/01/2018
 Wages per hour (One year terms at the following percentage of journeyman's base wage):
 1st 55% 2nd 60% 3rd 70% 4th 80%
 Supplemental Benefits per hour:
 \$ 12.02 \$ 12.02 \$ 14.82 \$ 14.82

CARPENTER APPRENTICES indentured after 01/01/2018
 Wages per hour (1300 hour terms at the following percentage of journeyman's base wage):
 1st 55% 2nd 60% 3rd 60% 4th 70% 5th 80%
 Supplemental Benefits per hour:
 \$ 12.02 \$ 12.02 \$ 14.82 \$ 14.82 \$ 14.82

PILEDRIVER/DOCKBUILDER APPRENTICES indentured after 01/01/2018
 Wages per hour (1300 hour terms at the following percentage of journeyman's base wage):
 1st 55% 2nd 60% 3rd 70% 4th 80%
 Supplemental Benefits per hour:
 \$ 12.02 \$ 12.02 \$ 14.82 \$ 14.82

NOTE ADDITIONAL AMOUNTS PAID PER HOUR WORKED TO APPRENTICES FOR SPECIFIC TYPES OF WORK PERFORMED:
 - When project contract mandates a single irregular work shift, the employee will receive an additional \$2.00 per hour. A single irregular work shift can start any time from 5:00 p.m. to 1:00 a.m.
 - State or Federal designated hazardous site, requiring protective gear shall be an additional \$2.00 per hour.
 - Certified welders when required to perform welding work will receive an additional \$1.50 per hour.

2-2914H-Ab

Electrician DISTRICT 1 01/01/2022

JOB DESCRIPTION Electrician
ENTIRE COUNTIES Albany, Columbia, Fulton, Hamilton, Montgomery, Rensselaer, Saratoga, Schoenectady, Schoharie, Warren, Washington
PARTIAL COUNTIES Greene: Portion of the County North of a line following the South limits of the City of Catskill in a westerly direction from the Hudson River to State Highway 23A. Then continuing on 23A to the road following the Little West Kill and continuing along this road to Catskill County. Otsego: Only the Towns of Decatur and Worcester

WAGES
 Per hour
 07/01/2021

Electrician	\$ 42.70
Audio/Sound	42.70
Video	42.70
Tele-Data	42.70
Solar/ Photovoltaic	42.70

Notes: An additional 5% above rate for work over 30' above floor and requires use of a safety harness when working on footholds, structural steel, temporary platforms, swing scaffolds & bosonvahn chairs. All OSHA approved lifts are excluded.
 An additional 10% above rate on towers & smoke stacks over 100' high
 An additional 20% above rate in shafts over 25' deep or tunnels over 50' long that are under construction.
 An additional 5% above rate when Journeymen are required to work as Lead(P) cable splicers.
 An additional 10% above rate when Journeymen Welders are required to have ASME verification.

SUPPLEMENTAL BENEFITS
 Per hour
 Journeyman \$ 27.42
 +3% of wage

OVERTIME PAY
 See (B, E, Q) on OVERTIME PAGE
 * DOUBLE TIME AFTER 10 HOURS ON SATURDAY

For Projects Bid on or Prior to 05/31/2019
NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFTS OF AT LEAST A FIVE (5) DAY DURATION WORKED BETWEEN THE HOURS LISTED BELOW:
 1st Shift 8:00 AM to 4:30 PM REGULAR RATE
 2nd Shift 4:30 PM to 1:00 AM REGULAR RATE PLUS 10%
 3rd Shift 12:30 AM to 8:00 AM REGULAR RATE PLUS 15%

For Projects Bid on or After 06/01/2019
 1st Shift 8:00 AM to 4:30 PM REGULAR RATE
 2nd Shift 4:30 PM to 1:00 AM REGULAR RATE PLUS 17.3%
 3rd Shift 12:30 AM to 8:00 AM REGULAR RATE PLUS 31.4%

For Projects Bid on or After 08/01/2019
NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SINGLE IRREGULAR SHIFTS OF AT LEAST A FIVE (5) DAY DURATION WORKED BETWEEN THE HOURS LISTED BELOW:
 1st Shift 8:00 AM to 4:30 PM REGULAR RATE
 2nd Shift 4:30 PM to 1:00 AM REGULAR RATE PLUS 17.3%
 3rd Shift 12:30 AM to 8:00 AM REGULAR RATE PLUS 31.4%

HOLIDAY
 Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) on HOLIDAY PAGE
 Note: If the holiday falls on Saturday, it shall be celebrated on Friday. If the holiday falls on Sunday, it shall be celebrated on Monday.

REGISTERED APPRENTICES
 Wages per hour

Terms at the following percentage of Journeyman's wage.

0-6mo	6-12mo	2nd yr	3rd yr	4th yr	5th yr
40%	45%	50%	60%	70%	80%

Notes: An additional 5% above rate for work over 30' above floor and requires use of a safety harness when working on footholds, structural steel, temporary platforms, swing scaffolds & bosonvahn chairs. All OSHA approved lifts are excluded.
 An additional 10% above rate on towers & smoke stacks over 100' high.
 An additional 20% above rate in shafts over 25' deep or tunnels over 50' long that are under construction.

Supplemental Benefits per hour worked

Apprentices indentured on or before 12/31/2018
 0-12 month term \$ 13.08*
 2 - 5th year term 27.42*

*Plus additional 3% of wage

Apprentices indentured on or after 1/1/2019
 0-12 Month Term \$ 13.08*
 2nd Year Term 21.70*
 3rd Year Term 22.64*
 4 - 5th Year Term 27.42*

*Plus additional 3% of wage

Elevator Constructor DISTRICT 1 01/01/2022

JOB DESCRIPTION Elevator Constructor
ENTIRE COUNTIES Albany, Clinton, Essex, Fulton, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schoenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES Madison: Madison Only the towns of Brookfield, Hamilton, Lincoln, Madison, Smithfield, Stockbridge and the City of Oneida
 Oneida: Entire county except the towns of Camden, Florence, and Vienna.

WAGES
 Per hour

	07/01/2021	01/01/2022
Mechanic	\$ 49.10	\$ 50.78
Helper	70% of Mechanic Wage Rate	70% of Mechanic Wage Rate

Four (4), ten (10) hour days may be worked for New Construction and Modernization Work at straight time during a week, Monday thru Thursday or Tuesday thru Friday.

***Four (4), ten (10) hour days are not permitted for Contract Work/Repair Work.

NOTE - In order to use the 4 Day/10 Hour Work schedule, as your normal schedule, you must submit an Employer Registration for Use of 4 Day/10 Hour Work Schedule, form PW30.1, and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
 Per hour
 Journeyman/Helper \$ 38.825*
 \$ 38.885*

(*Plus 6% of hourly rate, if less than 5 years of service, Plus 8% of hourly rate, if more than 5 years of service.)

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

HOLIDAY
 Paid: See (5, 6, 15, 16) on HOLIDAY PAGE

Overtime: See (5, 6, 15, 16) on HOLIDAY PAGE
 Note: When a paid holiday falls on Saturday, it shall be observed on Friday. When a paid holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES
 Wages per hour:
 0-6 mo* 6-12 mo 2nd yr 3rd yr 4th yr
 50% 55% 65% 70% 80%

(*Plus 5% of the hourly rate, no additional supplemental benefits.

Supplemental Benefits - per hour worked:
 Same as Journeyman/Helper

Glazier DISTRICT 1 01/01/2022

JOB DESCRIPTION Glazier
ENTIRE COUNTIES Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schoenectady, Schoharie, Warren, Washington

WAGES
 Per hour

	07/01/2021	5/01/2022
Glazier Base Wage	\$ 30.85	Additional \$ 1.75
High Work Base Wage*	33.15	1.50

+ additional \$3.60 per hour for all hours worked
 + additional \$3.60 per hour for all hours worked

(*When working on Swing Stage or Lift 100 feet or more in height, measured from the ground level up.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.
NOTE - In order to use the 4 Day/10 Hour Work schedule, as your normal schedule, you must submit an Employer Registration for Use of 4 Day/10 Hour Work Schedule, form PW30.1, and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
 Per hour
 Journeyman \$ 20.48
 Journeyman High Work 28.46

OVERTIME PAY
 See (B, E, E2, Q) on OVERTIME PAGE
 Premium is applied to the respective base wage only.

THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFT WORK OR SINGLE IRREGULAR SHIFTS STARTING BETWEEN THE HOURS LISTED BELOW:

4:00pm to 6:30am: ADDITIONAL 12.5% TO APPLICABLE WAGE RATE AND SUPPLEMENTAL BENEFIT

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

Note: If any of the holidays are designated by federal law to be celebrated on a day other than that on which they regularly fall, then the holiday shall be celebrated on the day set by said federal law as if the day on which the holiday is celebrated was actually the holiday date.

REGISTERED APPRENTICES
 Wages per hour
 Apprentice Glazier 1500 hr. terms at the following percentage of Journeyman's base wage.

1st 50%	2nd 65%	3rd 75%	4th 90%
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+ additional \$3.60 per hour for all hours worked for all terms

Apprentice Glazier HI-Work 1500 hr. terms at the following percentage of Journeymen HI-Work base wage.

Table with 4 columns: 1st, 2nd, 3rd, 4th. Rows for 60%, 65%, 70%, 75%, 80% with corresponding wage rates and an additional \$3.60 per hour for all hours worked.

Supplemental Benefits per hour worked

Table with 2 columns: Term, Rate. Rows for Apprentice 1st term (\$16.79), 2nd-4th term (20.46), Apprentice High Work 1st term (20.09), 2nd-4th term (26.46).

1-201

Insulator - Heat & Frost 07/01/2022

JOB DESCRIPTION Insulator - Heat & Frost DISTRICT 1

ENTIRE COUNTIES

Albany, Columbia, Delaware, Essex, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schoenectady, Schoharie, Sullivan, Ulster, Warren, Washington

WAGES

Wages per hour 07/01/2021

Table with 2 columns: Worker Type, Rate. Rows for Asbestos Worker* (\$37.12), Insulator* (37.12), Firestripping Worker* (31.55).

(*On Mechanical Systems only.

On government mandated shift work additional 12% of wage for all shifts starting after 3:30 P.M.

SUPPLEMENTAL BENEFITS

Per hour

Journeyperson \$ 23.20

OVERTIME PAY

See (B1, *Q) on OVERTIME PAGE

*B1-Doubles time begins after 10 hours on Saturday

**Q-Triple time on Labor Day if worked.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

When a holiday falls on Sunday the following Monday shall be observed as the holiday.

REGISTERED APPRENTICES

Wages per hour

one year terms at the following percentage of Journeyperson's wage.

Table with 4 columns: 1st, 2nd, 3rd, 4th. Rows for 60%, 70%, 80%, 90%.

Supplemental Benefits per hour worked:

Apprentices \$ 23.20

1-40

Ironworker 07/01/2022

JOB DESCRIPTION Ironworker DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Delaware, Essex, Greene, Rensselaer, Saratoga, Schoenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES

Fulton: Only the Townships of Broadbalt, Mayfield, Northampton, Perth, Blackeack and Johnstown.

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WAGES

Per hour 07/01/2021

Group #1: All Classifications except as noted in Groups 2 & 3 \$ 32.79

Group #2: Blaster, Drilling equipment only where a separate air compressor unit supplies power, Metal former (sidewalk), Wall painting & Laser operator \$ 33.29

Group #3: Handling of Asbestos or Toxic Materials \$ 34.14

SUPPLEMENTAL BENEFITS

Per hour

Journeymen \$ 22.61

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

1000 Hour terms at the following percentage of Journeymen's basic hourly wage.

Table with 4 columns: 1st, 2nd, 3rd, 4th. Rows for 65%, 70%, 80%, 85%.

Supplemental Benefits per hour worked

Apprentices 07/01/2021 \$ 22.61

1-157

Laborer - Heavy & Highway 07/01/2022

JOB DESCRIPTION Laborer - Heavy & Highway DISTRICT 1

ENTIRE COUNTIES

Schenectady, Schoharie

PARTIAL COUNTIES

Fulton: Only the Townships of Blacker, Mayfield, Northampton, Johnstown, Broadbalt and Perth.

Montgomery: Only the Townships of Mohawk, Glen, Charleston, Amsterdam, and Florida.

Saratoga: Only the Townships of Day, Hadley, Edinburg, Corinth, Moreau, South Glens Falls, Providence, Greenfield, Wilton, Galway, Northumberland, Milton, Saratoga Springs, Chertton, Ballston, Malta and Clifton Park.

WAGES

GROUP # A: Basic, Drill Helper, Flagman, Outboard and Hand Boats.

GROUP # B:

Chain Saw, Concrete Aggregate Bin, Concrete Broomer, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer, Pavement Breaker, Handlers of Steelmesh, Small Generators for Laborers, Tools Installation of Bridge Drainage Pipe, Pipe Layers, Vibrator Type Rollers, Trencher, Drill Doctor, Tail or Screw Operator on Asphalt Paver, Water Pump Operations (1-1/2" and Single Diaphragm) Nozzles (Asphalt, Grout, Sealing, and Sand Blasting), Laborers on Chain Link Fence, Rock Spalter and Power Unit, Pusher Type Concrete Saw and all other Gas, Electric, Oil and Air Tool Operators, Wrecking Laborer.

GROUP # C:

Drilling Equipment Only Where a Separate Air Compressor Unit Supplies Power, Acetylene Torch Operators, Asphalt Paver/Raker and Powdermen.

Page 28

Handbook: Only the Townships of Hopa, Benson and Walls, Montgomery: Only the Townships of Florida, Amsterdam, Charleston, Glen, Mohawk and Rocl, Otsego: Only the Towns of Unadilla, Butterfuts, Morris, Otsego, Oneonta, Laurens, Millford, Maryland and Worcester.

WAGES

Wages Per hour 07/01/2021

Table with 2 columns: Worker Type, Rate. Rows for Ornamental (\$32.65), Reinforcing (32.65), Rodman (32.65), Structural & Precast (32.65), Mover/Rigger (32.65), Fence Erector (32.65), Stone Derrickman (32.65), Shaefer (32.90), Curtain Wall Installer (32.65), Metal Window Installer (32.65).

SUPPLEMENTAL BENEFITS

Per hour

JOURNEYPerson \$ 30.49

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTWORK:

Table with 3 columns: Shift, Time, Rate. Rows for 1st Shift (6:00 AM to 2:00 PM, REGULAR RATE), 2nd Shift (2:00 PM to 7:00 PM, REGULAR RATE PLUS 10%), 3rd Shift (7:00 PM to 12:00 AM, REGULAR RATE PLUS 15%).

THE FOLLOWING RATE WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SINGLE IRREGULAR SHIFTS:

Shift Starting 4:30 PM to 12:00 AM REGULAR RATE PLUS 10%

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: Any holiday which occurs on Sunday shall be observed the following Monday.

REGISTERED APPRENTICES

Wages per hour

ONE YEAR TERMS AT THE FOLLOWING WAGE RATES:

07/01/2021

Table with 2 columns: Year, Rate. Rows for 1st year (\$19.50), 2nd year (21.50), 3rd year (23.50), 4th year (25.20).

Supplemental Benefits per hour worked

Table with 2 columns: Year, Rate. Rows for 1st year (\$11.60), 2nd year (22.92), 3rd year (24.64), 4th year (26.19).

1-12

Laborer - Building 07/01/2022

JOB DESCRIPTION Laborer - Building DISTRICT 1

ENTIRE COUNTIES

Schenectady, Schoharie

PARTIAL COUNTIES

Fulton: Only the Townships of Blacker, Mayfield, Northampton, Johnstown, Broadbalt and Perth.

Montgomery: Only the Townships of Mohawk, Glen, Charleston, Amsterdam, and Florida.

Saratoga: Only the Townships of Day, Hadley, Edinburg, Corinth, Moreau, South Glens Falls, Providence, Greenfield, Wilton, Galway, Northumberland, Milton, Saratoga Springs, Chertton, Ballston, Malta and Clifton Park.

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GROUP # D:

Blasters, Metal Form Salters (sidewalk), Stone or Granite Curb Setters.

GROUP # E:

Employees performing hazardous waste removal, lead abatement and removal, or asbestos abatement and removal on a State and/or Federally designated waste site & where relevant State or Federal regulations require employees to use or wear forms of personal protection.

WAGES per hour 07/01/2021

Table with 2 columns: Group, Rate. Rows for Group # A (\$34.80), Group # B (34.80), Group # C (35.00), Group # D (35.20), Group # E (36.60).

All employees who work a single irregular work day that starts from 8:00 pm to 1:00 am on a governmental mandated night shift shall be paid an additional \$2.80 per hour.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday, Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of a 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour

Journeymen \$ 25.74

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (6, 6) on HOLIDAY PAGE

Note: If the holiday falls on Sunday, it will be celebrated on Monday. If the Holiday falls on a Saturday employer can choose to celebrate Saturday or give Friday off with pay.

REGISTERED APPRENTICES

Wages per hour

1000 HOUR TERMS AT THE FOLLOWING PERCENTAGE OF JOURNEYPerson'S BASE WAGE

Table with 4 columns: 1ST, 2ND, 3RD, 4TH. Rows for 65%, 70%, 80%, 85%.

Supplemental Benefits per hour worked

Apprentices 07/01/2021 \$ 25.74

1-157/h

Laborer - Tunnel 07/01/2022

JOB DESCRIPTION Laborer - Tunnel DISTRICT 1

ENTIRE COUNTIES

Albany, Fulton, Hamilton, Herkimer, Madison, Montgomery, Oneida, Rensselaer, Saratoga, Schoenectady, Schoharie, Washington

WAGES

Class 1: All support laborers/sandhogs working above the shaft or tunnel

Class 2: All laborers/sandhogs working in the shaft or tunnel

Class 4: Safety Miners

Class 5: Sile work related to Shaft/Tunnel

Class A: Mole nipper, powder handler, changehouse attendant and top laborer, Air spade, Jackhammer, pavement breaker, Top ball, Bottom ball, side or roofball driller, maintenance men, burners, block layers, rodmen, caulkers, miners helper, movers and shuffers, nipers, darlmen, electrical cabinetmen, bossmen, groumen, gravelmen, farm workers, farm workers, farm workers, farm workers, conveyor men.

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Class B: Powder monkey, Blasters, Ironman and cement worker, miner, welder, heading driller, steel erectors, piledriver, rigger

Per Hour table with columns for date (07/01/2021, 07/01/2022) and Class (1-6) with corresponding wage rates.

Toxic and hazardous waste, lead abatement and asbestos abatement work will be paid an additional \$ 3.00 an hour.

*For projects bid on or before April 30, 2019

Class A \$ 38.60, Class B 39.80

Toxic and hazardous waste, lead abatement and asbestos abatement work will be paid an additional \$ 2.00 an hour.

SUPPLEMENTAL BENEFITS

Per hour

*For projects bid on or after May 1, 2019

Journeyman \$ 26.60

*For projects bid on or before April 30, 2018

Journeyman \$ 26.50

OVERTIME PAY

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

HOLIDAY

Paid: See (S, R, 16, 26) on HOLIDAY PAGE

Overtime: See (S, R, 16, 18, 25) on HOLIDAY PAGE

Note: If the holiday falls on a Sunday, it will be celebrated on Monday.

If the holiday falls on a Saturday, it will be celebrated on Friday.

REGISTERED APPRENTICES

FOR APPRENTICE RATES, refer to the appropriate Laborer Heavy & Highway wage rate contained in the wage schedule for the County and Location where the work is to be performed.

Lineman Electrician 01/01/2022 1-100/1577

JOB DESCRIPTION Lineman Electrician DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauque, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Putnam, Rensselaer, Rockland, Saratoga, Schoenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Per hour:

NOTE: Includes Teledata Work within ten (10) feet of High Voltage Transmission Lines

Below rates applicable on all overhead and underground distribution and maintenance work, and all overhead and underground transmission line work and the installation of fiber optic cable where no other construction trades are or have been involved. (Ref #14.01.01)

Table with columns for dates (07/01/2021, 05/02/2022, 05/01/2023, 05/06/2024) and Lineman, Technician, Crane, Crawler Backhoe, Welder, Cable Splicer, Digging Mach. Operator, Tractor Trailer Driver, Groundman, Truck Driver with wage rates.

Table with columns for hourly wage and plus 7% of hourly wage for Journeyman Lineman or Equipment Operators with Crane License.

*The 7% is based on the hourly wage paid, straight time or premium time.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE. *Note: Double time for all emergency work designated by the Dept. of Jurisdiction.

NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid: See (S, R, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

Overtime: See (S, R, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES

WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

Table with columns for 1st, 2nd, 3rd, 4th, 5th, 6th, 7th percentages (80%, 85%, 90%, 95%, 100%, 105%, 110%)

Table with columns for dates (07/01/2021, 05/02/2022, 05/01/2023, 05/06/2024) and Supplemental Benefits per hour.

*The 7% is based on the hourly wage paid, straight time or premium time.

Lineman Electrician - Teledata 01/01/2022 6-1249a

JOB DESCRIPTION Lineman Electrician - Teledata DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauque, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Putnam, Rensselaer, Rockland, Saratoga, Schoenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour:

Table with columns for dates (07/01/2021, 05/02/2022, 05/01/2023, 05/06/2024) and Cable Splicer, Installer, Repairman, Teledata Lineman, Tech, Equip. Operator, Groundman with wage rates.

For outside work, stopping at first point of attachment (demarcation).

07/01/2021

Table with columns for Cable Splicer, Installer, Repairman, Teledata Lineman, Tech, Equip. Operator, Groundman with wage rates.

NOTE: EXCLUDES Teledata work within ten (10) feet of High Voltage (500 volts and over) transmission lines. For this work please see LINEMAN.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED:

Table with columns for 1ST SHIFT, 2ND SHIFT, 3RD SHIFT and REGULAR RATE, REGULAR RATE PLUS 10%, REGULAR RATE PLUS 15%

SUPPLEMENTAL BENEFITS

Per hour:

Table with columns for 1ST SHIFT, 2ND SHIFT, 3RD SHIFT and REGULAR RATE, REGULAR RATE PLUS 10%, REGULAR RATE PLUS 15%

Table with columns for Equipment Mechanic, Flagman, Lineman, Technician, Crane, Crawler Backhoe, Cable Splicer, Certified Welder with wage rates.

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all electrical sub-stations, switching structures, fiber optic cable and all other work not defined as "Utility outside electrical work". (Ref #14.02.01-A)

Table with columns for Lineman, Technician, Crane, Crawler Backhoe, Cable Splicer, Certified Welder, Pipe Type Cable, Digging Mach. Operator, Tractor Trailer Driver, Groundman, Truck Driver, Equipment Mechanic, Flagman with wage rates.

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates apply on switching structures, maintenance projects, railroad catenary install/maintenance third rail installation, bonding of rails and pipe type cable and installation of fiber optic cable. (Ref #14.02.01-B)

Table with columns for Lineman, Tech, Welder, Crane, Crawler Backhoe, Cable Splicer, Certified Welder, Pipe Type Cable, Digging Mach. Operator, Tractor Trailer Driver, Groundman, Truck Driver, Equipment Mechanic, Flagman with wage rates.

Additional \$1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all overhead and underground transmission line work & fiber optic cable where other construction trades are or have been involved. This applies to transmission line work only, not other construction. (Ref #14.03.01)

Table with columns for Lineman, Tech, Welder, Crane, Crawler Backhoe, Cable Splicer, Digging Mach. Operator, Tractor Trailer Driver, Groundman, Truck Driver, Equipment Mechanic, Flagman with wage rates.

Additional \$1.00 per hour for entire crew when a helicopter is used.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

Table with columns for 1ST SHIFT, 2ND SHIFT, 3RD SHIFT and 8:00 AM to 4:30 PM REGULAR RATE, 4:30 PM to 1:00 AM REGULAR RATE PLUS 17.3%, 12:30 AM to 9:00 AM REGULAR RATE PLUS 31.4%

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday, Friday may be used as a make-up day, Tuesday thru Friday may be worked with no make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour worked (but also required on non-worked holidays):

Table with columns for \$25.40, \$ 25.90, \$ 26.40, \$ 26.90

Table with columns for Journeyman \$ 6.14 plus 3% of wage paid

*The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (S, R, 16) on HOLIDAY PAGE

6-1249LT - Teledata

Lineman Electrician - Traffic Signal, Lighting 01/01/2022

JOB DESCRIPTION Lineman Electrician - Traffic Signal, Lighting DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauque, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Putnam, Rensselaer, Rockland, Saratoga, Schoenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Lineman/Technician shall perform all overhead aerial work. A Lineman/Technician on the ground will install all electrical panels, connect all grounds, install and connect all electrical conductors which includes, but is not limited to road loop wires, conduit and plastic or other type pipes that carry conductors, flex cables and connectors, and to oversee the encasement or burial of such conductors or pipes.

A Groundman/Groundman Truck Driver shall: Build and set concrete forms, handle steel mesh, set footer cages, transport concrete in a wheelbarrow, hand or machine concrete vibrator, finish concrete footers, mix mortar, pour pole bases, cover and maintain footers while curing in cold weather, operate jack hammer, operate hand pavement breaker, trim, concrete and other motorized saws, as a drill helper, operate and maintain generators, water pumps, chainsaws, sand blasting, operate mulching and seeding machine, air tools, electric tools, gas tools, load and unload materials, hand shovel and/or broom, prepare and pour mastic and other fillers, assist digger operator equipment operator in ground excavation and restoration, landscape work and painting. Only when assisting a lineman technician, a groundman/groundman truck driver may assist in installing conduit, pipe, cables and equipment.

A flagger's duties shall consist of traffic control only.

(Ref #14.01.01)

Table with columns for Per hour, dates (07/01/2021, 05/02/2022, 05/01/2023, 05/06/2024) and Lineman, Technician, Crane, Crawler Backhoe, Cable Splicer, Certified Welder, Digging Machine, Tractor Trailer Driver, Groundman, Truck Driver, Equipment Mechanic, Flagman with wage rates.

Below rates are applicable for installation, testing, operation, maintenance and repair on all Traffic Control (Signal) and Illumination (Lighting) projects, Traffic Monitoring Systems, and Road Weather Information Systems. Includes digging of holes for poles, anchors, footer foundations for electrical equipment; assembly of all electrical materials or raceway; placing of fish wire; pulling of cables, wires or fiber optic cable through such raceways; splicing of conductors; dismantling of such structures, lines or equipment.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

Table with columns for 1ST SHIFT, 2ND SHIFT, 3RD SHIFT and 8:00 AM to 4:30 PM REGULAR RATE, 4:30 PM to 1:00 AM REGULAR RATE PLUS 17.3%, 12:30 AM to 9:00 AM REGULAR RATE PLUS 31.4%

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday, Friday may be used as a make-up day, Tuesday thru Friday may be worked with no make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour worked (but also required on non-worked holidays):

Table with 4 columns: Hourly wage, plus 7% of hourly wage, plus 7% of hourly wage, plus 7% of hourly wage. Rows include Journeyman Lineman or Equipment Operators with Crane License.

*The 7% is based on the hourly wage paid, straight time or premium time.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE. *Note: Double time for all emergency work designated by the Dept. of Jurisdiction. NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked.

HOLIDAY

Paid: See (5, 6, 8, 13, 26) on HOLIDAY PAGE plus Governor of NYS Election Day. Overtime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES

WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

Table with 7 columns: 1st 60%, 2nd 65%, 3rd 70%, 4th 75%, 5th 80%, 6th 85%, 7th 90%.

SUPPLEMENTAL BENEFITS per hour:

Table with 4 columns: 07/01/2021, 05/02/2022, 08/01/2023, 09/09/2024. Rows show hourly wages and percentages.

*The 7% is based on the hourly wage paid, straight time or premium time.

*plus 3% of hourly wage

*plus 3% of hourly wage

*plus 3% of hourly wage

*The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE. NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid: See (5, 8, 8, 15) on HOLIDAY PAGE. Overtime: See (5, 6, 8, 15, 16, 25) on HOLIDAY PAGE. NOTE: All paid holidays falling on a Saturday shall be observed on the preceding Friday. All paid holidays falling on a Sunday shall be observed on the following Monday.

6-1248TT

Mason - Building

01/01/2022

JOB DESCRIPTION Mason - Building

DISTRICT 12

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour: 07/01/2021

Tile/Marble/Terrazzo

Table with 2 columns: Setter, Finisher. Rates: \$36.21, 28.22.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday, Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project, if the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour worked

Table with 2 columns: Journeyman Setter, Journeyman Finisher. Rates: \$21.13, 18.27.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE. Overtime: See (5, 8) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

Hour Terms at the following percentage of Journeyman's wage

Table with 2 columns: Setter, Finisher. Rows show 1st through 8th terms for both roles.

Table with 2 columns: Supplemental Benefits per hour worked, 07/01/2021. Rates: \$21.13, 18.27.

Lineman Electrician - Tree Trimmer

01/01/2022

JOB DESCRIPTION Lineman Electrician - Tree Trimmer

DISTRICT 8

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauque, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Applies to line clearance, tree work and right-of-way preparation on all new or existing energized overhead or underground electrical, telephone and CATV lines. This also would include stump removal near underground energized electrical lines, including telephone and CATV lines.

Table with 3 columns: 07/01/2021, 01/02/2022, 12/31/2023. Rows include Tree Trimmer, Equipment Operator, Equipment Mechanic, Truck Driver, Groundman, Flag person.

*NOTE: Subject to change due to any minimum wage increases. Rate effective 12/31/2021: \$13.20

SUPPLEMENTAL BENEFITS

Per hour worked (but also required on non-worked holidays):

Table with 3 columns: Journeyman, \$9.80, \$10.23, \$10.48.

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Setter:

Table with 2 columns: 1st term 0-500 hrs, 2nd term 501-1500 hrs, 3rd term 1501-2500 hrs, 4th term 2501-3500 hrs, 5th term 3501-4500 hrs, 6th term 4501-6000 hrs.

Finisher:

Table with 2 columns: 1st term 0-500 hrs, 2nd term 501-1500 hrs, 3rd term 1501-2500 hrs, 4th term 2501-3700 hrs.

12-2TS.1

Mason - Building

01/01/2022

JOB DESCRIPTION Mason - Building

DISTRICT 12

ENTIRE COUNTIES

Albany, Columbia, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Washington

PARTIAL COUNTIES

Warren: Only the Townships of Bolton, Lake George, Lake Luzerne, Queensbury, Stony Creek, Thurman & Warrensburg.

WAGES

Per hour: 07/01/2021

Table with 2 columns: Bricklayer, Cement Mason(Bldg), Plasterer/Fireproofing, Pointer/Caulker/Cleaner, Stone Mason, Acid Brick.

(*Fireproofing of Structural only.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday, Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project, if the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Table with 2 columns: Journeyman, \$22.28.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE. Overtime: See (5, 8) on HOLIDAY PAGE. Note: Any holiday which occurs on Sunday shall be observed the following Monday.

REGISTERED APPRENTICES

Wages per hour

750 hour terms at the following percentage of Journey's wage

Table with 7 columns: 1st 60%, 2nd 80%, 3rd 65%, 4th 70%, 5th 75%, 6th 80%, 7th 85%, 8th 90%.

Supplemental Benefits per hour worked

Table with 2 columns: All Terms, \$22.28, 12-2b.1

Mason - Heavy&Highway

01/01/2022

JOB DESCRIPTION Mason - Heavy&Highway

DISTRICT 12

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ENTIRE COUNTIES

Albany, Cayuga, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Madison, Monroe, Montgomery, Oneida, Oswego, Rensselaer, Saratoga, Schenectady, Schoharie, St. Lawrence, Warren, Washington

PARTIAL COUNTIES

Onondaga: For Heavy & Highway Cement Mason or Plaster Work in Onondaga County, refer to Mason-Heavy&Highway tag 1-2(b) on.

WAGES

Per hour: 07/01/2021

Table with 2 columns: Mason & Bricklayer, \$38.91.

Additional \$1.00 per hour for work on any swing scaffold or staging suspended by means of ropes or cables.

SUPPLEMENTAL BENEFITS

Per hour worked

Table with 2 columns: Journeyman, \$21.13.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE. Overtime: See (5, 8) on HOLIDAY PAGE. Note: If a holiday falls on Sunday, the Monday following shall constitute the day of the legal holiday.

REGISTERED APPRENTICES

Wages per hour

750 HR TERMS at the following percent of Journeyman's wage

Table with 8 columns: 1st 60%, 2nd 60%, 3rd 65%, 4th 70%, 5th 75%, 6th 80%, 7th 85%, 8th 90%.

Supplemental Benefits per hour worked

Table with 2 columns: 0 to 500 Hours, All Other. Rates: \$12.73, 20.79.

12-2b.1

Millwright

01/01/2022

JOB DESCRIPTION Millwright

DISTRICT 2

ENTIRE COUNTIES

Albany, Chenango, Delaware, Fulton, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie

WAGES

Per hour: 07/01/2021

Table with 2 columns: Building, Heavy & Highway. Rates: \$33.65, 35.85.

NOTE: ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount subject to any overtime premiums):

- Certified Welders shall receive \$1.75 per hour in addition to the current Millwrights rate provided herein is directed to perform certified welding.
- For Building work if a work site has been declared a hazardous site by the Owner and the use of protective gear (including, as a minimum, air purifying canister-type chemical respirators) are required, then that employee shall receive a \$1.50 premium per hour for Building work.
- For Heavy & Highway work if the work is performed at a State or Federally designated hazardous waste site where employees are required to wear protective gear, the employees performing the work shall receive an additional \$2.00 per hour over the millwright heavy and highway wage rate for all hours worked on the day protective gear was worn.
- An employee performing the work of a machinist shall receive \$2.00 per hour in addition to the current Millwrights rate. For the purposes of this premium to apply, a "machinist" is a person who uses a lathe, Bridgeport, milling machine or similar type of tool to make or modify parts.
- When performing work underground at 500 feet and below, the employee shall receive an additional \$1.00.

SUPPLEMENTAL BENEFITS

Per hour:

Table with 2 columns: Journeyman, \$25.39.

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OVERTIME PAY
 See (B, E, Q) on OVERTIME PAGE
 *Note - Saturday may be used as a make-up day and worked at the straight time rate of pay during a work week when conditions such as weather, power failures, fire, or natural disaster prevent the performance of work on a regular scheduled work day.

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

Note: Any holiday that falls on Sunday shall be observed the following Monday. Any holiday that falls on Saturday shall be observed the preceding Friday.

REGISTERED APPRENTICES
 Wages per hour:

(1) Year terms at the following percentage of journeymen's rate,	1st	2nd	3rd	4th
	60%	70%	80%	90%

Supplemental Benefits per hour:

Apprentices:	1st term	\$ 11.91
	2nd term	21.34
	3rd term	22.70
	4th term	24.04

2-1183.1

Operating Engineer - Building 01/01/2022

JOB DESCRIPTION Operating Engineer - Building **DISTRICT 1**

ENTIRE COUNTIES
 Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES
 Dutchess: Defined as north of the northern boundary line of City of Poughkeepsie then due east to Route 115 to Bedford Road then east along Bedford Road to VanWagner Road then north along VanWagner Road to Bower Road then east along Bower Road to Rte. 44 east to Route 343 then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to Connecticut.

WAGES
 CLASSIFICATION A:
 Crane, hydraulic cranes, tower crane, locomotive crane, pilerdriver, cableway, derricks, whirles, dragline, boom trucks over 5 tons.

CLASS A:
 Shovel, all Excavators (including rubber tire full swing), Graders, power road grader, all CMI equipment, front-end rubber tire loader, tractor-mounted drill (square master), mucking machine, concrete central mix plant, concrete pump, ballcrete system, automated asphalt concrete plant, and tractor road paver, boom trucks 5 tons and under, maintenance engineer, self-contained crawler drill-hydraulic rock drill.

CLASS B:
 Backhoes (rubber tired backhoe/loader combination), bulldozer, pucical, tractor, backhoe, scraper, LeTourneau grader, form line grader, self-propelled soil compactor (all roller), asphalt roller, blocktop spreader, power brooms, sweepers, trenching machine, Barber Green loader, silo booms, hydro hammer, concrete spreader, concrete finishing machine, one drum hold, power hoisting (single drum), host two drum or more, three drum engine, power hoisting (two drum and over), two drum and swinging engine, three drum swinging engine, rod hoist, A-L frame winches, core and wall drillers (one drum), post hole digger, model CHB Vibro-Tamp or similar machine, batch bin and plant operator, dirty locomotive, skid steer loader, track excavator 5/8 cubic yard or smaller, front and rubber tired loader under four cubic yards, vacuum machine (mounted or towed).

CLASS C:
 Fork lift, high lift, all terrain fork lift or similar, oiler, fireman and heavy-duty greaser, boilers and steam generators, pump, vibrator, motor mixer, air compressor, dust collector, welding machine, wall point, mechanical heater, generators, temporary light plants, electric submersible pumps 4" and over, murrphy type diesel generator, conveyor, elevators, concrete mixer, ballcrete power pack (ballcrete system), seeding, and mixing machines, pumps.

* In the event that equipment listed above is operated by robotic control, the classification covering the operation will be the same as if manually operated.

WAGES per hour

	07/01/2021	07/01/2022
Class # A1	\$ 46.71	\$ 47.81
Class # A	46.22	47.32

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Operating Engineer - Heavy & Highway 01/01/2022

JOB DESCRIPTION Operating Engineer - Heavy & Highway **DISTRICT 1**

ENTIRE COUNTIES
 Albany, Broome, Chenango, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Tioga, Warren, Washington

PARTIAL COUNTIES
 Dutchess: Defined as north of the northern boundary line of City of Poughkeepsie then due east to Route 115 to Bedford Road then east along Bedford Road to VanWagner Road then north along VanWagner Road to Bower Road then east along Bower Road to Rte. 44 east to Route 343 then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to Connecticut.

WAGES
 CLASSIFICATION A:

Crane, hydraulic cranes, tower crane, locomotive crane, pilerdriver, cableway, derricks, whirles, dragline, boom trucks over 5 tons.

CLASS A:
 Shovel, all Excavators (including rubber tire full swing), Graders, power road grader, all CMI equipment, front-end rubber tire loader, tractor-mounted drill (square master), mucking machine, concrete central mix plant, concrete pump, ballcrete system, automated asphalt concrete plant, and tractor road paver, boom trucks 5 tons and under, maintenance engineer, self-contained crawler drill-hydraulic rock drill.

CLASS B:
 Backhoes (rubber tired backhoe/loader combination), bulldozer, pucical, tractor, backhoe, scraper, LeTourneau grader, form line grader, self-propelled soil compactor (all roller), asphalt roller, blocktop spreader, power brooms, sweepers, trenching machine, Barber Green loader, silo booms, hydro hammer, concrete spreader, concrete finishing machine, one drum hold, power hoisting (single drum), host two drum or more, three drum engine, power hoisting (two drum and over), two drum and swinging engine, three drum swinging engine, rod hoist, A-L frame winches, core and wall drillers (one drum), post hole digger, model CHB Vibro-Tamp or similar machine, batch bin and plant operator, dirty locomotive, skid steer loader, track excavator 5/8 cubic yard or smaller, front and rubber tired loader under four cubic yards, vacuum machine (mounted or towed).

CLASS C:
 Fork lift, high lift, all terrain fork lift or similar, oiler, fireman and heavy-duty greaser, boilers and steam generators, pump, vibrator, motor mixer, air compressor, dust collector, welding machine, wall point, mechanical heater, generators, temporary light plants, electric submersible pumps 4" and over, murrphy type diesel generator, conveyor, elevators, concrete mixer, ballcrete power pack (ballcrete system), seeding, and mixing machines, pumps.

* In the event that equipment listed above is operated by robotic control, the classification covering the operation will be the same as if manually operated.

WAGES per hour

	07/01/2021	07/01/2022
Class # A1	\$ 46.71	\$ 47.81
Class # A	46.22	47.32

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Operating Engineer - Survey Crew 01/01/2022

JOB DESCRIPTION Operating Engineer - Survey Crew **DISTRICT 12**

ENTIRE COUNTIES
 Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schoharie, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES
 Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north to the center of the county that lies east of a line down the center of Route 98 to include all areas that lies within the City of Batavia.

WAGES
 These rates apply to Building, Tunnel and Heavy Highway.

Per hour:
SURVEY CLASSIFICATIONS:

Party Chief - One who directs a survey party.
 Instrument Person - One who operates the surveying instruments.
 Rod Person - One who holds the rods and assists the Instrument Person.

Additional \$3.00/hr. for Tunnel Work
 Additional \$2.50/hr. for Hazardous Work Site

SUPPLEMENTAL BENEFITS
 Per hour worked:

	07/01/2021	07/01/2022
Journeymen	\$ 29.20	

OVERTIME PAY
 See (B, E, P, X) on OVERTIME PAGE
 *Note: \$23.00/hr. Only for "ALL" premium hours paid when worked.

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

REGISTERED APPRENTICES
 WAGES: 1000 hour terms based on the Percentage of Rod Person's Wage:

	07/01/2021	07/01/2022
Journeymen	\$ 29.20	

9-1000 80%
 1001-2000 70%

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Additional \$0.60 per hr for Tower Cranes.
 Additional \$1.25 per hr for Cranes with Boom length & jib 150ft. and over.
 Additional \$2.26 per hr for Cranes with Boom length & jib 200ft. and over.
 Additional \$2.50 per hr over B rate for Nuclear Leader work.
 Additional \$0.40 per hr for tunnel or excavation of shaft, 40' or more deep.
 Additional \$2.50 per hour if work requires Personal Protective Equipment for hazardous waste site activities with a level C or over rating.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work schedule', as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedules' form PW30.1, and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
 Per hour

	07/01/2021	07/01/2022
Journeymen	\$ 29.40	30.55

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

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

Note: If a holiday falls on Sunday, it will be celebrated on Monday. If the holiday falls on Saturday, it will be celebrated on Friday. Employees who work a designated holiday shall be paid double time plus 8 hours of straight time.

REGISTERED APPRENTICES
 Wages per hour

1000 hours terms at the following percentage of Journeymen's wage Class B

	1st	2nd	3rd	4th
	60%	70%	80%	90%

Supplemental Benefits per hour worked

	07/01/2021	07/01/2022
All terms	\$ 24.70	25.85

1-150 Alb

Operating Engineer - Heavy & Highway 01/01/2022

JOB DESCRIPTION Operating Engineer - Heavy & Highway **DISTRICT 1**

ENTIRE COUNTIES
 Albany, Broome, Chenango, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Tioga, Warren, Washington

PARTIAL COUNTIES
 Dutchess: Defined as north of the northern boundary line of City of Poughkeepsie then due east to Route 115 to Bedford Road then east along Bedford Road to VanWagner Road then north along VanWagner Road to Bower Road then east along Bower Road to Rte. 44 east to Route 343 then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to Connecticut.

WAGES
 CLASSIFICATION A:

Crane, hydraulic cranes, tower crane, locomotive crane, pilerdriver, cableway, derricks, whirles, dragline, boom trucks over 5 tons.

CLASS A:
 Shovel, all Excavators (including rubber tire full swing), Graders, power road grader, all CMI equipment, front-end rubber tire loader, tractor-mounted drill (square master), mucking machine, concrete central mix plant, concrete pump, ballcrete system, automated asphalt concrete plant, and tractor road paver, boom trucks 5 tons and under, maintenance engineer, self-contained crawler drill-hydraulic rock drill.

CLASS B:
 Backhoes (rubber tired backhoe/loader combination), bulldozer, pucical, tractor, backhoe, scraper, LeTourneau grader, form line grader, self-propelled soil compactor (all roller), asphalt roller, blocktop spreader, power brooms, sweepers, trenching machine, Barber Green loader, silo booms, hydro hammer, concrete spreader, concrete finishing machine, one drum hold, power hoisting (single drum), host two drum or more, three drum engine, power hoisting (two drum and over), two drum and swinging engine, three drum swinging engine, rod hoist, A-L frame winches, core and wall drillers (one drum), post hole digger, model CHB Vibro-Tamp or similar machine, batch bin and plant operator, dirty locomotive, skid steer loader, track excavator 5/8 cubic yard or smaller, front and rubber tired loader under four cubic yards, vacuum machine (mounted or towed).

CLASS C:
 Fork lift, high lift, all terrain fork lift or similar, oiler, fireman and heavy-duty greaser, boilers and steam generators, pump, vibrator, motor mixer, air compressor, dust collector, welding machine, wall point, mechanical heater, generators, temporary light plants, electric submersible pumps 4" and over, murrphy type diesel generator, conveyor, elevators, concrete mixer, ballcrete power pack (ballcrete system), seeding, and mixing machines, pumps.

* In the event that equipment listed above is operated by robotic control, the classification covering the operation will be the same as if manually operated.

WAGES per hour

	07/01/2021	07/01/2022
Class # A1	\$ 46.71	\$ 47.81
Class # A	46.22	47.32

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Operating Engineer - Survey Crew 01/01/2022

JOB DESCRIPTION Operating Engineer - Survey Crew **DISTRICT 12**

ENTIRE COUNTIES
 Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schoharie, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES
 Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north to the center of the county that lies east of a line down the center of Route 98 to include all areas that lies within the City of Batavia.

WAGES
 These rates apply to Building, Tunnel and Heavy Highway.

Per hour:
SURVEY CLASSIFICATIONS:

Party Chief - One who directs a survey party.
 Instrument Person - One who operates the surveying instruments.
 Rod Person - One who holds the rods and assists the Instrument Person.

Additional \$3.00/hr. for Tunnel Work
 Additional \$2.50/hr. for Hazardous Work Site

SUPPLEMENTAL BENEFITS
 Per hour worked:

	07/01/2021	07/01/2022
Journeymen	\$ 29.20	

9-1000 80%
 1001-2000 70%

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Table with 2 columns: Rate Category (2001-3000), Rate (80%), and Supplemental Benefit per hour worked.

NOTE: PHP is premium hours paid when worked.

12-168-645 D.H.M.

Operating Engineer - Survey Crew - Consulting Engineer 01/01/2022

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer DISTRICT 12

ENTIRE COUNTIES

Albany, Albany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Otsego, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schoenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north. Genesee: Only the portion of the county that lies east of a line down the center of Route 98 to include all area that lies within the City of Batavia.

WAGES

These rates apply to feasibility and preliminary design surveying, line and grade surveying for inspection or supervision of construction when performed under a Consulting Engineer Agreement.

Per hour: SURVEY CLASSIFICATIONS:

Party Chief - One who directs a survey party. Instrument Person - One who operates the surveying instruments. Rod Person - One who holds the rods and assists the Instrument Person.

07/01/2021

Table with 2 columns: Classification (Party Chief, Instrument Person, Rod Person) and Rate (\$45.84, \$42.11, \$31.21).

Additional \$3.00/hr. for Tunnel Work. Additional \$2.50/hr. for EPA or DEC certified toxic or hazardous waste work.

SUPPLEMENTAL BENEFITS

Per hour worked: Journeyman \$ 27.20

OVERTIME PAY

See (B, E, C, X) on OVERTIME PAGE. Note: \$23.60/hr. Only for "ALL" premium hours paid when worked.

HOLIDAY

Field: See (5, 8) on HOLIDAY PAGE. Overtime: See (5, 8) on HOLIDAY PAGE.

REGISTERED APPRENTICES

WAGES: 1000 hour terms based on percentage of Rod Persons Wage:

07/01/2021

Table with 2 columns: Rate Category (0-1000, 1001-2000, 2001-3000), Rate (60%, 70%, 80%).

SUPPLEMENTAL BENEFIT per hour worked:

Table with 2 columns: Rate Category (0-1000, 1001-2000, 2001-3000), Rate (\$18.73 / PHP \$16.53, \$21.85 / \$18.85, \$24.97 / \$21.43).

NOTE: PHP is premium hours paid when worked.

12-168-648 DCE

Crane 3: All hydraulic cranes and derricks with a manufacturer's rating of forty nine (49) ton and below, including boom trucks, to be paid \$2.00 per hour over Class A rate.

Table with 2 columns: Crane Class (Crane 1, Crane 2, Crane 3) and Rate (\$52.59, \$51.59, \$50.59).

SUPPLEMENTAL BENEFITS

Per hour: \$ 22.80 / \$ 23.70, + 9.10* / + 9.35*

* This portion of benefits subject to same premium rate as shown for overtime wages.

OVERTIME PAY

See (B, D2, E, C, X) on OVERTIME PAGE

HOLIDAY

Field: See (5, 8) on HOLIDAY PAGE. Overtime: See (5, 8) on HOLIDAY PAGE. If a holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES

WAGES: (1000) hours terms at the following percentage of Journeyman's Class B wage,

Table with 2 columns: Term (1st term, 2nd term, 3rd term, 4th term) and Rate (60%, 65%, 70%, 75%).

SUPPLEMENTAL BENEFITS per hour: Same as Journeyman

7-158-8327L

Painter 01/01/2022

JOB DESCRIPTION Painter DISTRICT 1

ENTIRE COUNTIES

Albany, Essex, Fulton, Hamilton, Montgomery, Rensselaer, Saratoga, Schoenectady, Schoharie, Warren, Washington

WAGES

Per hour: 07/01/2021 05/01/2022 Additional

Table with 2 columns: Category (Painter/Wallcovers, Drywall Finishers, Spray Rate, Structural Steel, Lead Abatement, Lead Abatement on Structural Steel) and Rate (\$30.49, \$30.49, \$30.49, \$31.49, \$31.49, \$31.49).

(*Employees working on objects with the use of swing stage, bosswain chair, pick and cables only will be paid at Structural Steel rate.

Bridge Painter

See Bridge Painter rates for the following work: All Bridges and Tents

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the "4 Day/10 Hour Work schedule", as your normal schedule, you must submit an Employer Registration for Use of 4 Day/10 Hour Work Schedule, form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour: Journeyman \$ 18.35

OVERTIME PAY

See (B, E2, H) on OVERTIME PAGE

Operating Engineer - Tunnel 01/01/2022

JOB DESCRIPTION Operating Engineer - Tunnel DISTRICT 7

ENTIRE COUNTIES

Albany, Albany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Otsego, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schoenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: Northern part of Dutchess, to the northern boundary line of the City of Poughkeepsie, then due east to Route 116 to Beedel Road, then east along Beedel Road to VanWagner Road, then north along VanWagner Road to Bower Road, then east along Bower Road to Rte. 44 east to Rte. 343, then along Rte. 343 east to the northern boundary of the Town of Dover Plains and east along the northern boundary of the Town of Dover Plains, to the borderline of the State of Connecticut. Genesee: Only that portion of the county that lies east of a line down the center of Route 98 and the entirety of the City of Batavia.

WAGES

CLASS A: Automatic Concrete Spreader (CM Type); Automatic Fine Grader; Backhoe (except tractor mounted, rubber tread); Belt Placer (CM Type); Blacktop Plant (automated); Crawler; Calson Auger; Concrete Plant (automated); Concrete Curb Machine (self-propelled siltform); Concrete Pump (8' or over); Dredge; Dual Drum Paver; Excavator; Front End Loader (4 cu. yd & over); Grapple; Head Tower (Sawarmen or Equin); Hoist (shaft); Hoist (two or three drum); Log Chipper/Loader (self-feeder); Maintenance Engineer (shaft and tunnel); any Mechanical Shaft Drill; Mine Hoist; Mining Machine; Mole and similar types; Mucking Machine or Mole; Overhead Crane (Sentry or Straddle Type); Pile Driver; Power Grader; Remote Controlled Mole or Tunnel Machine; Scraper; Shovel; Side Boom; Slip Form Paver (if a second man is needed, they shall be an Oiler); Tipper/Maintenance Engineer (shaft & tunnel); Tractor Drawn Belt-Type Loader; Tug Operator (manned rented equipment excluded); Tunnel Shovel

CLASS B: Automated Central Mix Concrete Plant; Backhoe (topside); Backhoe (track mounted, rubber tread); Backhoe (topside); Blumhouse Spreader and Mixer; Blacktop Plant (non-automated); Blast or Rotary Drill (truck or tractor mounted); Borfing Machine; Caga Hoist; Concrete Mix Plant (non-automated); all Concrete Batching Plants; Compressors (4 or less exceeding 2,000 c.f.m. combined capacity); Concrete Pump; Crusher; Diesel Power Unit; Drill Rigs (tractor mounted); Front End Loader (under 4 cu. yd.); Grapco Epoxy Machine; Hoist (One Drum); Hoist (2 or 3 drum topside); Knuckle Boom material handler; Kolman Plant Loader & similar type Loaders (if employer requires another person to clean the screen or to maintain the equipment, they shall be an Oiler); L.C.M. Work Boat Operator; Locomotive; Maintenance Engineer (topside); Maintenance Grassy Mtn; Mixer for stabilized base-self propelled; Motorist Machine; Plant Engineer; Personnel Hoist; Pump Crete; Ready Mix Concrete Plant; Refrigeration Equipment (for soil stabilization); Road Wrecker; Roller (all above sub-grade); Sea Mule; Shotcrete Machine; Shovel (topside); Tractor with Dozer and/or Pusher; Trencher; Tugger Hoist; Tunnel Locomotive; Vacuum Machine (mounted or towed); Welder; Winch; Winch Cat

CLASS C: A Frame Truck; All Terrell Telescoping Material Handler; Ballast Regulator (ride-on); Compressors (4 not to exceed 2,000 c.f.m. combined capacity; or 3 or less with more than 1200 c.f.m. but not to exceed 2,000 c.f.m.); Compressors (any size, but subject to other provisions for compressors); Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (4 or any type combination); Concrete Pavement Spreaders and Finishers; Conveyor; Drill (core); Drill (well); Electric Pump used in conjunction with Well Point System; Farm Tractor with Accessories; Fine Grade Machine; Fork Lift; Groat Pump (over 6 cu. ft.); Gunite Machine; Hammer (hydraulic self-propelled); Hydra-Spitter (ride-on); Hydra-Blastor (water); Hydro-Blastor; Motorized Form Carrier; Post Hole Digger and Post Driver; Power Sweeper; Roller grade & fill; Scarifier (ride-on); Span-Saw (ride-on); Submersible Electric Pump (when used in lieu of well points); Tamping (ride-on); Tie-Extractor (ride-on); Tie Handler (ride-on); Tie Insertor (ride-on); Tie Spacer (ride-on); Track Liner (ride-on); Tractor with towed accessories; Vibratory Compactor; Vibro Temp; Well Point

CLASS D: Aggregate Plant; Cement & Bin Operator; Compressors (3 or less not to exceed 1,200 c.f.m. combined capacity); Compressors (any size, but subject to other provisions for compressors); Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (3 or less or any type or combination); Concrete Saw (self-propelled); Form Tapper; Grassyman; Hydraulic Pump (jacking system); Junior Engineer; Light Plants; Mucking Machine; Oiler; Parapet Concrete or Pavement Grinder; Power Broom (towed); Power Heaterman (when used for production); Revulvis Wrecker; Siltell Winder; Steam Cleaner; Tractor

Per hour: 07/01/2021 07/01/2022

Table with 2 columns: Classification (Master Mechanic, CLASS A, CLASS B, CLASS C, CLASS D) and Rate (\$51.00, \$49.59, \$47.37, \$44.58, \$41.67).

Additional \$5.00 per hour for Hazardous Waste Work on a state or federally designated hazardous waste site where the Operating Engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin and eye protection. Fringe benefits will be paid at the hourly wage premium.

CRANES:

Crane 1: All cranes, including self-erecting to be paid \$4.00 per hour over the Class A rate. Crane 2: All cranes with a manufacturer's rating of fifty (50) ton and over to be paid \$3.00 per hour over Class A rate.

THE FOLLOWING ADDITIONAL HOURLY RATE WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFT(S) OR SINGULAR IRREGULAR SHIFT WHEN THE SHIFT STARTS BETWEEN THE HOURS LISTED BELOW:

2:30 PM to 6:00 AM PLUS \$1.00 TO APPLICABLE RATE*

*Additional \$1.00 is Not Subject to Overtime

HOLIDAY

Field: See (1) on HOLIDAY PAGE. Overtime: See (5, 8) on HOLIDAY PAGE. Note: If the holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES

Wages per hour: 1000 hour terms at the following percentage of Journeyman's base wage

Table with 2 columns: Term (1st, 2nd, 3rd, 4th, 5th, 6th) and Rate (45%, 50%, 60%, 70%, 80%, 90%).

Supplemental Benefits per hour

All Terms \$ 18.35

1-201-P

Painter - Bridge & Structural Steel 01/01/2022

JOB DESCRIPTION Painter - Bridge & Structural Steel DISTRICT 8

ENTIRE COUNTIES

Albany, Bronx, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Kings, Montgomery, Nassau, New York, Orange, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schoenectady, Schoharie, Sullivan, Ulster, Warren, Washington, Westchester

WAGES

Per Hour: STEEL: Bridge Painting: 07/01/2021 10/01/2021

Table with 2 columns: Rate Category (STEEL, Bridge Painting) and Rate (\$51.50, \$53.00, + 8.53*, + 9.53*)

ADDITIONAL \$6.00 per hour for POWER TOOLS/SPRAY, whether straight time or overtime.

NOTE: All premium wages are to be calculated on base rate per hour only.

* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (no cap).

NOTE: Generally, for Bridge Painting Contracts, ALL WORKERS on and off the bridge (including Flagmen) are to be paid Painter's Rate; the contract must be ONLY for Bridge Painting.

SHIFT WORK:

When directly specified in public agency or authority contract documents for an employee to work a second shift and works the second shift with employees other than from the first shift, all employees who work the second shift will be paid 10% of the base wage shift differential in lieu of overtime for the first eight (8) hours worked after which the employees shall be paid at time and one half of the regular wage rate. When a single irregular work shift is mandated in the job specifications or by the contracting agency, wages shall be paid time and one half for single shifts between the hours of 3pm-11pm or 11pm-7am.

SUPPLEMENTAL BENEFITS

Per Hour: Journeyworker: 07/01/2021 10/01/2021

Table with 2 columns: Rate Category (Journeyworker) and Rate (\$10.80, \$10.80, + 30.00*, + 30.60*)

* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (no cap).

OVERTIME PAY
See (B, F, R) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (4, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wage - Per hour:

Apprentices: (1) year terms	07/01/2021	10/01/2021
1st year	\$ 20.80 + 3.45*	\$ 21.20 + 3.88*
2nd year	\$ 30.80 + 8.18*	\$ 31.80 + 8.78*
3rd year	\$ 41.20 + 8.90*	\$ 42.40 + 7.70*
Supplemental Benefits - Per hour:		
1st year	\$.25 + 12.00*	\$.25 + 12.24*
2nd year	\$ 10.90 + 18.00*	\$ 10.80 + 18.35*
3rd year	\$ 10.20 + 24.00*	\$ 10.80 + 24.48*

NOTE: All premium wages are to be calculated on base rate per hour only.

B-DG-9/8/08/155-BrSS

Painter - Line Stripping DISTRICT 8 01/01/2022

JOB DESCRIPTION Painter - Line Stripping DISTRICT 8

ENTIRE COUNTIES
Albany, Bronx, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Kings, Montgomery, Nassau, New York, Orange, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schoenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

WAGES
Per hour:

Painter (Stripping-Highway):	07/01/2021	07/01/2022
Stripping-Machine Operator*	\$ 30.52	\$ 31.53
Lineman Thermoplastic	36.83	38.34

Note: * Includes but is not limited to: Positioning of cones and directing of traffic using hand held devices. Excludes the Driver/Operator of equipment used in the maintenance and protection of traffic safety.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the 4 Day/10 Hour Work Schedule, as your normal schedule, you must submit an Employer Registration for Use of 4 Day/10 Hour Work Schedule, form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
Per hour paid:

	07/01/2021	07/01/2022
Journeyworker:		
Stripping Machine Operator:	\$ 10.03	\$ 10.03
Linemen Thermoplastic:	10.03	10.03

OVERTIME PAY
See (B, BZ, EZ, F, S) on OVERTIME PAGE

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HOLIDAY
Paid: See (5, 20) on HOLIDAY PAGE
Overtime: See (5, 20) on HOLIDAY PAGE

REGISTERED APPRENTICES
One (1) year terms at the following wage rates:

	07/01/2021	12/31/2021	07/01/2022
1st Term*	\$ 15.00	\$ 15.00	\$ 15.00
1st Term**	14.00	16.00	15.00
1st Term***	12.50	13.20	13.20
2nd Term:	18.19	18.19	18.92
3rd Term:	24.25	24.25	25.22

*Bronx, Kings, New York, Queens, Richmond, and Suffolk counties
**Nassau and Westchester counties
***All other counties

Supplemental Benefits per hour:

	07/01/2021	07/01/2022	07/01/2022
1st term:	\$ 9.16	\$ 9.16	\$ 9.16
2nd Term:	9.16	9.16	10.03
3rd Term:	9.16	9.16	10.03

8-1459-LS

Painter - Metal Polisher DISTRICT 8 01/01/2022

JOB DESCRIPTION Painter - Metal Polisher DISTRICT 8

ENTIRE COUNTIES
Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauque, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Otsego, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schoenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES
07/01/2021

Metal Polisher	\$ 37.13
Metal Polisher*	38.23
Metal Polisher**	41.13

*Note: Applies on New Construction & complete renovation
** Note: Applies when working on scaffolds over 34 feet.

SUPPLEMENTAL BENEFITS
Per Hour: 07/01/2021

Journeyworker:
All classification \$ 10.84

OVERTIME PAY
See (B, E, F, T) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6, 11, 15, 16, 25, 26) on HOLIDAY PAGE
Overtime: See (5, 6, 9, 11, 15, 16, 25, 26) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour:

	07/01/2021
1st year	\$ 18.00
2nd year	17.00
3rd year	18.00
1st year*	\$ 16.39
2nd year*	17.44
3rd year*	18.54
1st year**	\$ 16.60

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2nd year**	18.50
3rd year**	20.50

*Note: Applies on New Construction & complete renovation
** Note: Applies when working on scaffolds over 34 feet.

Supplemental benefits:
Per hour:

1st year	\$ 7.38
2nd year	7.38
3rd year	7.38

8-8A/28A-MP

Plumber DISTRICT 1 01/01/2022

JOB DESCRIPTION Plumber DISTRICT 1

ENTIRE COUNTIES
Albany, Columbia, Fulton, Greene, Montgomery, Rensselaer, Schoenectady, Schoharie

PARTIAL COUNTIES
Hamilton: Only the Towns of Arietta, Benson, Hope, Inlet, Lake Pleasant, Morehouse and Wells.
Saratoga: Only the Towns of Chariton, Clifton Park, Galway, Halfmoon, Milton, Stillwater and Waterford and the city of Mechanicville.

WAGES
Per hour:

	07/01/2021
Plumber:	
Pipefitter, Steamfitter	\$ 45.26

SUPPLEMENTAL BENEFITS
Per hour:

Journeyman	\$ 27.74
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OVERTIME PAY
See (B1, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 8) on HOLIDAY PAGE

Note: Whenever a Holiday falls on Saturday, the preceding day, Friday, shall be observed as the Holiday. If a Holiday falls on a Sunday, the following day, Monday shall be observed as the Holiday.

REGISTERED APPRENTICES
Wages per hour
One year terms at the following percentage of Journeyperson's wage.

1st	2nd	3rd	4th	5th
45 %	65 %	65 %	76 %	90 %

Supplemental Benefits per hour:

Apprentices indentured on or before April 30, 2019

All Terms	\$ 27.74
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Apprentices indentured on or after May 1st, 2019

Terms 1-3	\$ 22.54
Terms 4-5	\$ 27.74

1-7-SF

Roofer DISTRICT 1 01/01/2022

JOB DESCRIPTION Roofer DISTRICT 1

ENTIRE COUNTIES
Albany, Clinton, Columbia, Essex, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schoenectady, Warren, Washington

WAGES
Per hour:

	07/01/2021
Roofers/Waterproofers	\$ 32.05
Asphalt Cold Process	32.65
Fluid Applied Roof	32.65
Pitch & Asbestos	34.05

Roofers/Waterproofers	\$ 32.05
Asphalt Cold Process	32.65
Fluid Applied Roof	32.65
Pitch & Asbestos	34.05

Shift Work:

On government mandated shift work starting after 12:00pm and before 4:00am workers shall be paid \$4.00 additional per hour

SUPPLEMENTAL BENEFITS
Per hour:

Journeyman	\$ 21.62
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OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 8) on HOLIDAY PAGE

Note: When any Holiday falls on Saturday, the Friday before such Holiday shall be recognized as the legal Holiday. When a Holiday falls on Sunday, it shall be observed the following Monday.

REGISTERED APPRENTICES
Wages per hour

Apprentice terms at the following per cent of the Roofer/Waterproofers rate. For Pitch & Asbestos work, an additional \$2.00 must be paid in wages. For Asphalt Cold Process work and Fluid Applied Roof coating, an additional \$0.50 must be paid in the wages.

1st Term	58%
1500 hrs.	
2nd Term	74%
1 yr. and 1500 hrs. as 1st term.	
3rd Term	90%
1 yr. and 1500 hrs. as 2nd term.	
3rd Term complete at 1 yr and 1050 hrs. as 3rd term	

Supplemental Benefits per hour worked

1st Term	\$ 19.04
2nd Term	20.37
3rd Term	20.85

1-241

Sheetmetal Worker DISTRICT 1 01/01/2022

JOB DESCRIPTION Sheetmetal Worker DISTRICT 1

ENTIRE COUNTIES
Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schoenectady, Schoharie, Warren, Washington

WAGES
Per hour:

	07/01/2021
Sheetmetal Worker	\$ 35.16

All work requiring HAZWOPER Training additional \$1.00 per hour

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday, Friday may be used as a make-up day. NOTE - In order to use the 4 Day/10 Hour Work Schedule, as your normal schedule, you must submit an Employer Registration for Use of 4 Day/10 Hour Work Schedule, form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS
Per hour:

Journeyman	\$ 34.65
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OVERTIME PAY
See (B, E, E5, O) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
When any holiday falls on Saturday, the Friday before such holiday shall be recognized as the legal holiday. Any holiday falling on Sunday, the following Monday shall be recognized as the legal holiday.

REGISTERED APPRENTICES
Wages per hour

6 Month Terms at the following rate:

1st term	\$ 19.65
2nd term	\$ 21.19
3rd term	\$ 22.02
4th term	\$ 22.84
5th term	\$ 23.67
6th term	\$ 24.50
7th term	\$ 25.32
8th term	\$ 26.15
9th term	\$ 26.97
10th term	\$ 27.79

Supplemental Benefits per hour

1st term	\$ 21.23
2nd term	\$ 21.93
3rd term	\$ 22.13
4th term	\$ 22.59
5th term	\$ 23.97
6th term	\$ 24.40
7th term	\$ 25.14
8th term	\$ 30.88
9th term	\$ 31.81
10th term	\$ 32.34

1-83

Sprinkler Fitter 01/01/2022

JOB DESCRIPTION Sprinkler Fitter **DISTRICT 1**

ENTIRE COUNTIES
Albany, Rensselaer, Saratoga, Schenectady, Warren

WAGES
Per hour 07/01/2021

Sprinkler Fitter \$ 38.56

SUPPLEMENTAL BENEFITS
Per hour

Journeyperson \$ 25.37

OVERTIME PAY
See (B, H) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: When a holiday falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double time rate. When a holiday falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double time rate.

REGISTERED APPRENTICES
Wages per hour

One Half Year terms at the following wage.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th

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\$ 17.87	\$ 19.86	\$ 21.59	\$ 23.58	\$ 25.56	\$ 27.55	\$ 29.53	\$ 31.52	\$ 33.60	\$ 35.49
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Supplemental Benefits per hour

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 8.27	\$ 8.27	\$ 19.22	\$ 19.22	\$ 19.47	\$ 19.47	\$ 19.47	\$ 19.47	\$ 19.47	\$ 19.47

1-888-3

Teamster - Building 01/01/2022

JOB DESCRIPTION Teamster - Building **DISTRICT 1**

ENTIRE COUNTIES
Albany, Columbia, Fulton, Greene, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Washington

PARTIAL COUNTIES
Warren: Only the Townships of Bolton, Warrensburg, Thurman, Stony Creek, Lake George, Lake Luzerne and Queensbury.

WAGES
GROUP # A:
Straight trucks, winch, transit mix on the site, road rollers, dump trucks, pick-ups, panel, water trucks, fuel trucks on the site (including nozzle).

GROUP # B:
Low boy or Low boy trailer, Euclids or similar equipment.

WAGES per hour 07/01/2021 07/01/2022

Group A	\$ 28.52	\$ 29.02
Group B	28.82	29.32

SUPPLEMENTAL BENEFITS
Per hour 07/01/2021 07/01/2022

Journeyperson \$ 26.32 \$ 27.54

OVERTIME PAY
See (E, E2, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: Any holiday which occurs on Sunday shall be observed the following Monday.

1-294

Teamster - Heavy & Highway 01/01/2022

JOB DESCRIPTION Teamster - Heavy & Highway **DISTRICT 1**

ENTIRE COUNTIES
Albany, Columbia, Fulton, Greene, Hamilton, Herkimer, Montgomery, Oneida, Rensselaer, Saratoga, Schenectady, Schoharie, Washington

PARTIAL COUNTIES
Chenango: Entire county except the Townships of Afton, Bainbridge, Coventry, Greene, Guilford, Oxford and Smithville.
Lewis: Only the Township of Grog, Lewis, Leyden, Lowville, Lyonsdale, Marinburg, Turin, West Turin and Watson.
Madison: Only the Townships of Brookfield, Eaton, Hamilton, Lebanon, Lincoln, Madison, Smithfield, Stockbridge and the City of Oneida
Otsego: Entire county EXCEPT Townships of Bullfrenn, Laurans, Maryland, Milford, Morris, Oneonta, Stego, Unadilla and Worcester.
Warren: Only the Townships of Bolton, Warrensburg, Thurman, Stony Creek, Luzerne, Caldwell (Lake George), and Queensbury.

WAGES
GROUP #1:
Warehouses, Yardman, Truck Helpers, Pickups, Panel Trucks, Flatboy Material Trucks (straight jobs), Single Axel Dump Trucks, Dumpsters, Material Checkers and Recalvers, Grassers, Truck Timmen, Mechanics Helpers and Parts Chasers.

GROUP #2:
Tandems and Batch Trucks, Mechanics, Dispatcher.

GROUP #3:
Semi-Trailers, Low-boy Trucks, Asphalt Distributor Trucks, and Agitator, Mixer Trucks and dumpcrete type vehicles, Truck Mechanic, Fuel Trucks.

GROUP #4:

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Specialized Earth Moving Equipment, Euclid type, or similar off-highway, where not self-loading, Straddles (Ross) Carrier, and self-contained concrete mobile truck.

GROUP #5:
Off-highway Tandem Back-Dump, Twin Engine Equipment and Double-Hitched Equipment where not self-loading.

WAGES per hour 07/01/2021

Group #1	\$ 32.65
Group #2	32.71
Group #3	32.80
Group #4	32.89
Group #6	33.08

Hazardous waste projects that require a Level C or greater protection shall be paid an additional \$ 1.00 per hour. All employees who work a single irregular work shift starting between 5pm and 1 am on governmental mandated night shifts shall be paid an additional \$1.50 per hour.
For work bid on or after April 1, 1995, there shall be a 12 month carryover of the last posted rate in effect at the time of the bid.

**** IMPORTANT NOTICE - EFFECTIVE 04/01/2008 ****
Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Friday.

NOTE - In order to use the "4 Day/10 Hour Work schedule", as your normal schedule, you must submit an "Employer Registration for Use of 4 Day/10 Hour Work Schedule," form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour: \$ 26.52
+\$1.00 per hour worked

(*) not applicable to paid holidays

OVERTIME PAY
See (B, E, O, X) on OVERTIME PAGE

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

1-294/h

Welder 01/01/2022

JOB DESCRIPTION Welder **DISTRICT 1**

ENTIRE COUNTIES
Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauque, Chenung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, New York, Oneida, Oneonta, Ontario, Orange, Orleans, Oswego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES
Per hour 07/01/2021

Welder: To be paid the same rate of the mechanic performing the work.*

*EXCEPTION: If a specific welder certification is required, then the "Certified Welder" rate in that trade tag will be paid.

OVERTIME PAY

HOLIDAY 1-As Per Trade

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Overtime Codes

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

NOTE: Supplemental Benefits are "Per hour worked" (for each hour worked) unless otherwise noted

- (AA) Time and one half of the hourly rate after 7 and one half hours per day
- (A) Time and one half of the hourly rate after 7 hours per day
- (B) Time and one half of the hourly rate after 8 hours per day
- (B1) Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday. Double the hourly rate for all additional hours
- (B2) Time and one half of the hourly rate after 40 hours per week
- (C) Double the hourly rate after 7 hours per day
- (C1) Double the hourly rate after 7 and one half hours per day
- (D) Double the hourly rate after 8 hours per day
- (D1) Double the hourly rate after 9 hours per day
- (E) Time and one half of the hourly rate on Saturday
- (E1) Time and one half 1st 4 hours on Saturday; Double the hourly rate all additional Saturday hours
- (E2) Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E3) Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week
- (E4) Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E5) Double time after 8 hours on Saturdays
- (F) Time and one half of the hourly rate on Saturday and Sunday
- (G) Time and one half of the hourly rate on Saturday and Holidays
- (H) Time and one half of the hourly rate on Saturday, Sunday, and Holidays
- (I) Time and one half of the hourly rate on Sunday
- (J) Time and one half of the hourly rate on Sunday and Holidays
- (K) Time and one half of the hourly rate on Holidays
- (L) Double the hourly rate on Saturday
- (M) Double the hourly rate on Saturday and Sunday
- (N) Double the hourly rate on Saturday and Holidays
- (O) Double the hourly rate on Saturday, Sunday, and Holidays
- (P) Double the hourly rate on Sunday
- (Q) Double the hourly rate on Sunday and Holidays
- (R) Double the hourly rate on Holidays
- (S) Two and one half times the hourly rate for Holidays

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- (S1) Two and one half times the hourly rate the first 8 hours on Sunday or Holidays. One and one half times the hourly rate all additional hours.
- (T) Triple the hourly rate for Holidays
- (U) Four times the hourly rate for Holidays
- (V) Including benefits at SAME PREMIUM as shown for overtime
- (W) Time and one half for benefits on all overtime hours.
- (X) Benefits payable on Paid Holiday at straight time. If worked, additional benefit amount will be required for worked hours. (Refer to other codes listed.)

Holiday Codes

PAID Holidays:

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

OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

- (1) None
- (2) Labor Day
- (3) Memorial Day and Labor Day
- (4) Memorial Day and July 4th
- (5) Memorial Day, July 4th, and Labor Day
- (6) New Year's, Thanksgiving, and Christmas
- (7) Lincoln's Birthday, Washington's Birthday, and Veterans Day
- (8) Good Friday
- (9) Lincoln's Birthday
- (10) Washington's Birthday
- (11) Columbus Day
- (12) Election Day
- (13) Presidential Election Day
- (14) 1/2 Day on Presidential Election Day
- (15) Veterans Day
- (16) Day after Thanksgiving
- (17) July 4th
- (18) 1/2 Day before Christmas
- (19) 1/2 Day before New Year's
- (20) Thanksgiving
- (21) New Year's Day
- (22) Christmas
- (23) Day before Christmas
- (24) Day before New Year's
- (25) Presidents' Day
- (26) Martin Luther King, Jr. Day
- (27) Memorial Day
- (28) Easter Sunday

- (29) Juneteenth



New York State Department of Labor - Bureau of Public Work
State Office Building Campus
Building 12 - Room 130
Albany, New York 12240

REQUEST FOR WAGE AND SUPPLEMENT INFORMATION

As Required by Articles 8 and 9 of the NYS Labor Law

Fax (518) 485-1870 or mail this form for new schedules or for determination for additional occupations.

[This Form Must Be Typed]

Submitted By: Contracting Agency Architect or Engineering Firm Public Work District Office Date: _____
(Check Only One)

A. Public Work Contract to be let by: (Enter Data Pertaining to Contracting/Public Agency)

1. Name and complete address (Check if new or change)	2. N.Y. State Units (see item 6)
Telephone: () Fax: () E-Mail:	<input type="checkbox"/> 01 DOT <input type="checkbox"/> 07 City <input type="checkbox"/> 02 O38 <input type="checkbox"/> 08 Local School District <input type="checkbox"/> 03 Demolition Authority <input type="checkbox"/> 09 Special Local District, i.e., Fire, Sewer, Water District <input type="checkbox"/> 04 State University Construction Fund <input type="checkbox"/> 10 Village <input type="checkbox"/> 11 Town <input type="checkbox"/> 05 Mental Hygiene Facilities Corp. <input type="checkbox"/> 12 County <input type="checkbox"/> 13 Other Non-N.Y. State (Describe) <input type="checkbox"/> 09 OTHER N.Y. STATE UNIT
3. SEND REPLY TO (Check if new or change) Name and complete address:	4. SERVICE REQUIRED. Check appropriate box and provide project information.
Telephone: () Fax: () E-Mail:	<input type="checkbox"/> Now Schedule of Wages and Supplements. APPROXIMATE BID DATE: _____ <input type="checkbox"/> Additional Occupation and/or Redetermination
PRC NUMBER ISSUED PREVIOUSLY FOR THIS PROJECT: _____ OFFICE USE ONLY	
B. PROJECT PARTICULARS	
5. Project Title Description of Work Contract Identification Number Note: For NYS units, the OSC Contract No. _____	6. Location of Project: Location on Site _____ Route No./Street Address _____ Village or City _____ Town _____ County _____
7. Nature of Project - Check One: <input type="checkbox"/> 1. New Building <input type="checkbox"/> 2. Addition to Existing Structure <input type="checkbox"/> 3. Heavy and Highway Construction (New and Repair) <input type="checkbox"/> 4. New Sewer or Waterline <input type="checkbox"/> 5. Other New Construction (Explain) _____ <input type="checkbox"/> 6. Other Reconstruction, Maintenance, Repair or Alteration <input type="checkbox"/> 7. Demolition <input type="checkbox"/> 8. Building Service Contract	8. OCCUPATION FOR PROJECT: <input type="checkbox"/> Construction (Building, Heavy Highway/Sewer/Water) <input type="checkbox"/> Tunnel <input type="checkbox"/> Residential <input type="checkbox"/> Landscape Maintenance <input type="checkbox"/> Elevator maintenance <input type="checkbox"/> Exterminators, Furnishings <input type="checkbox"/> Fire Safety Director, NYC Only <input type="checkbox"/> Guards, Watchmen <input type="checkbox"/> Janitors, Porters, Cleaners <input type="checkbox"/> Elevator Operators <input type="checkbox"/> Moving furniture and equipment <input type="checkbox"/> Trash and refuse removal <input type="checkbox"/> Window cleaners <input type="checkbox"/> Other (Describe) _____
9. Has this project been reviewed for compliance with the Wicks Law involving separate bidding? YES <input type="checkbox"/> NO <input type="checkbox"/>	
10. Name and Title of Requester: _____ Signature: _____	



NEW YORK STATE DEPARTMENT OF LABOR
Bureau of Public Work - Debarment List

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Under Article 8 and Article 9 of the NYS Labor Law, a contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work or public building service contract/sub-contract with the state, any municipal corporation or public body for a period of five (5) years from the date of debarment when:

- Two (2) final determinations have been rendered within any consecutive six-year (6) period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements;
- One (1) final determination involves falsification of payroll records or the kickback of wages and/or supplements.

The agency issuing the determination and providing the information, is denoted under the heading 'Fiscal Officer'. DOL = New York State Department of Labor; NYC = New York City Comptroller's Office; AG = New York State Attorney General's Office; DA = County District Attorney's Office.

Debarment Database: To search for contractors, sub-contractors and/or their successors debarred from bidding or being awarded any public work contract or subcontract under NYS Labor Law Articles 8 and 9, or under NYS Workers' Compensation Law Section 141-b, access the database at this link: <https://applications.labor.ny.gov/EDLis/searchPage.do>

For inquiries where WCB is listed as the "Agency", please call 1-888-548-9322

NYS DOL Bureau of Public Work Debarment List 12/22/2021
Article 8

NYS DOL Bureau of Public Work Debarment List 12/22/2021
Article 8

AGENCY	FISCAL OFFICER	FEN	EMPLOYER NAME	EMPLOYER DBA NAME	ADDRESS	DEBARMENT START DATE	DEBARMENT END DATE
DOL	DOL	****6754	D589 CONTRACTORS, LLC		655 WEST AVE UNIT PH 1300WALK CT 06829	08/12/2021	05/12/2025
DOL	NYC	****9889	A.J.S. PROJECT MANAGEMENT, INC.		148 FIFTH AVENUE NEW YORK NY 10010	12/19/2016	12/29/2021
DOL	DOL	****4018	ADIRONACK BUILDING ELECTIONS INC.		4185 WILSON ROAD EAST THERESA NY 13411	03/26/2019	03/26/2024
DOL	AG	****1912	ADVANCED BUILDERS & LAND DEVELOPMENT, INC.		400 OSER AVE #2300HUNTSVILLE NY 12853	06/11/2019	06/11/2024
DOL	DOL	****1687	ADVANCED SAFETY SPRINKLER INC		261 MILL ROAD P.O BOX 256 WEST AURORA NY 14552	03/23/2019	05/23/2024
DOL	NYC	****2775	ADVENTURE MASONRY CORP		1635 RICHMOND AVENUE STATEN ISLAND NY 10314	12/19/2021	12/13/2022
DOL	NYC		AGOSTINHO TOME		465 BARRETTS ST BRONX NY 10474	05/11/2016	05/11/2022
DOL	NYC		AJED PARVEZ		451 HANOVER AVENUE STATEN ISLAND NY 10324	01/11/2021	01/11/2026
DOL	DOL		ANGELO F COCKER		2919 SOUTH SALINA STREET SUITE 145 HUNTSVILLE NY 12853	09/17/2020	08/17/2023
DOL	DOL		ANGELO F COCKER		2919 SOUTH SALINA STREET SUITE 145 HUNTSVILLE NY 12853	12/04/2014	12/04/2023
DOL	DOL		ANGELO GARCIA		616 WEST AVE UNIT PH 1300WALK CT 06829	06/12/2021	05/12/2025
DOL	DOL		ANITA SALERNO		158 BCLARK CT SYRACUSE NY 13204	01/07/2020	01/07/2024
DOL	NYC		ANTHONY J SCALFANI		148 FIFTH AVE NEW YORK NY 10010	12/28/2016	12/28/2021
DOL	DOL		ANTHONY PEROLA		3 WEST MAIN SUITE 208 ELMSFORD NY 10523	01/23/2017	01/23/2022
DOL	DOL		ANTONIO ESTEVEZ		442 ARMONK RD MOUNT KISCO NY 10849	06/12/2016	06/12/2023
DOL	NYC		ARADDO CONSTRUCTION CORP		116-48 138TH ST SOUTH OCEAN PARK NY 11420	08/17/2020	08/17/2025
DOL	DOL		ARNOLD A. PAOLINI		1259 BROADWAY ST ELIZABETH NY 10812	02/03/2020	02/03/2025
DOL	NYC		ARSHAD M SHAMOOD		101-42 88TH AVENUE JAMAICA NY 11432	11/23/2019	11/26/2024
DOL	DOL		ARVINDER ATWAL		85 KENNETH PLACE NEW YORK PARK NY 11040	07/18/2017	07/18/2022
DOL	NYC	****6433	ATLAS RESTORATION CORP.		34-12 109TH AVENUE ASTORIA NY 11958	06/02/2017	06/02/2022
DOL	NYC	****5532	ATWAL MECHANICALS, INC		85 KENNETH PLACE NEW YORK PARK NY 11040	07/19/2017	07/19/2022
DOL	NYC	****2591	AWI #12 INC.		269 CROSEY AVENUE APT 1168ROSELIN NY 11214	10/20/2014	10/20/2023
DOL	NYC		AVM CONSTRUCTION CORP		157-72 129RD ST SOUTH OCEAN PARK NY 11420	09/17/2020	09/17/2025
DOL	NYC		AZIDABEGUM		624 McDONALD AVENUE ROSELIN NY 11216	08/17/2020	08/17/2025
DOL	NYC		BALWINDER BISHN		421 HUDSON ST SUITE 202ROSELIN NY 10204	02/20/2019	02/20/2024
DOL	NYC	****3416	BEAM CONSTRUCTION, INC.		60 MAR ST WHITE PLAINS NY 10606	01/04/2024	
DOL	DOL		BERNARD BEGLEY		36 LONG RIDGE ROAD BEDFORD NY 10509	12/18/2019	12/18/2024
DOL	NYC	****2113	BHV CONTRACTING, INC.		481 HANOVER AVENUE STATEN ISLAND NY 10324	01/11/2021	01/11/2026
DOL	DOL		BHAGI CANTISANI		09/12/2010	09/12/2023	
DOL	DOL	****3927	BJB CONSTRUCTION CORP.		38 LOMI RIDGE ROAD BEDFORD NY 10509	12/18/2018	12/18/2024
DOL	DOL	****4512	BOB BRUNO EXCAVATING, INC		5 MORNINGSIDE DR ALBANY NY 12202	05/28/2010	05/28/2024
DOL	DOL		BOGDAN MARKOVSKI		316 W. PLEASANTVIEW AVE SUITE 2.32HACKENSACK NJ 07601	02/11/2019	02/11/2024
DOL	DA		BOLDER CONSTRUCTION		3540 LINDEN STREET BELLMORE NY 11710	12/22/2019	12/22/2021
DOL	DOL		BRADLEY J SCIRKA		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025

DOL	DOL		BRUCE P. NASH JR.	641 BUTTERNUT ROAD EAST SYRACUSE NY 13257	09/12/2019	08/12/2023	
DOL	DOL	****9225	C&O LAFACE CONSTRUCTION, INC.	801 CONROD RD BALDWINVILLE NY 13027	02/03/2020	01/03/2023	
DOL	DOL	****1800	C.B.E. CONTRACTING CORPORATION	316 MCGUINNESS BLVD OSWEGO NY 13325	03/07/2017	03/07/2022	
DOL	DOL	****19683	C.C. PAVING AND EXCAVATING, INC.	2810 SOUTH SALINA ST SUITE 125 HUNTSVILLE NY 12853	09/17/2020	09/17/2025	
DOL	DOL	****9383	C.O. PAVING AND EXCAVATING, INC.	2810 SOUTH SALINA ST SUITE 125 HUNTSVILLE NY 12853	12/04/2016	12/04/2023	
DOL	DOL	****14883	C.P.D. ENTERPRISES, INC	P.O BOX 281 WALTON NY 12886	03/03/2020	03/03/2025	
DOL	DOL	****1616	CALADRI DEVELOPMENT CORP.	1223 PARK ST. PEEKSKILL NY 10668	05/17/2021	05/17/2026	
DOL	DOL	****3361	CALI ENTERPRISES, INC.	1223 PARK STREET PEEKSKILL NY 10668	05/17/2021	05/17/2026	
DOL	NYC		CALVIN WALTERS	465 EAST THIRD ST MT. PLEASANT NY 10950	06/09/2019	05/09/2024	
DOL	DOL		CANTISANI & ASSOCIATES LTD	442 ARMONK RD MOUNT KISCO NY 10849	09/12/2018	09/12/2023	
DOL	DOL		CANTISANI HOLDING LLC	442 ARMONK RD MOUNT KISCO NY 10849	09/12/2018	09/12/2023	
DOL	DOL		CARMEN RADICUTA	851 OSWEGO RD BALDWINVILLE NY 13027	02/03/2020	02/03/2025	
DOL	DOL		CARMENA RACHETTA	851 OSWEGO ROAD BALDWINVILLE NY 13027	02/03/2020	01/03/2023	
DOL	DOL	****9312	CARMODY "2" INC	442 ARMONK RD MOUNT KISCO NY 10849	06/12/2016	06/12/2023	
DOL	DOL	****1143	CARMODY BUILDING CORP	442 ARMONK RD MOUNT KISCO NY 10849	06/12/2016	06/12/2023	
DOL	DOL		CARMODY CONCRETE CORPORATION	442 ARMONK RD MOUNT KISCO NY 10849	09/12/2018	09/12/2023	
DOL	DOL		CARMODY MASONRY CORP	442 ARMONK RD MOUNT KISCO NY 10849	09/12/2018	09/12/2023	
DOL	DOL	****3912	CARMODY INDUSTRIES INC	442 ARMONK RD MOUNT KISCO NY 10849	05/18/2019	05/18/2023	
DOL	DOL		CARMODY MAINTENANCE CORPORATION	442 ARMONK RD MOUNT KISCO NY 10849	05/18/2019	05/18/2023	
DOL	DOL		CARMODY MASONRY CORP	442 ARMONK RD MOUNT KISCO NY 10849	05/18/2019	05/18/2023	
DOL	DOL	****1908	CBE CONTRACTING CORP	142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022	
DOL	AG		CESAR J. AGUDELO	8108 34TH AVENUE APT. BELMONT HEIGHTS NY 11375	02/07/2018	02/07/2023	
DOL	DOL	****10028	CHMUTLEER CONSTRUCTION LLC	4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025	
DOL	NYC		CHARLES ZAVARRA	863 WASHINGTON STREET FRANKLIN SQUARE NY 11530	03/10/2020	03/10/2025	
DOL	DOL		CHRISTOPHER GRECO	28 NORTH MYRTLE AVENUE SPRING VALLEY NY 10959	02/19/2021	02/19/2026	
DOL	DOL		CHRISTOPHER J WANI	19 CANTLIN AVE JAMESTOWN NY 13471	09/17/2018	09/17/2023	
DOL	DOL		GI CHRISTOPHER PAPASTERANO AKA CHRIS PAPASTERANO	1445 COMMERCIAL AVE BRONX NY 10461	05/13/2019	05/13/2024	
DOL	DOL	****1227	CONSTRUCTION PARTS WAREHOUSE, INC.	551 BUTTERNUT ROAD EAST SYRACUSE NY 13057	09/12/2019	09/12/2023	
DOL	DOL	****3228	CROSS-COUNTY LANDSCAPING AND TREE SERVICE, INC.	ROCKLAND TREE SERVICE	25 NORTH MYRTLE AVENUE SPRING VALLEY NY 10959	02/18/2021	02/18/2026
DOL	DOL	****2524	CSE ELECTRICAL & MECHANICAL INC	45-32 237TH ST DOUGLASSTON NY 11361	01/14/2020	01/14/2024	
DOL	NYC		DALIT KAMR BOPARAI	184-26 99TH AVE FROSTBROOK NY 11365	10/17/2021	10/17/2022	
DOL	DOL	****7819	DARMO CONSTRUCTION UNLIMITED INC	485 RAFF AVENUE HOBOKEN NJ 07030	10/16/2021	10/16/2026	
DOL	DOL		DARVIN V. COCKER	2916 SOUTH SALINA ST SUITE 125 HUNTSVILLE NY 12853	09/17/2020	09/17/2025	

Table with 4 columns: DOL, DOL, DARIAN L COWER, 2910 SOUTH SALINA ST SUITE 2C67 ROCHESTER NY 14609. Includes various contractor names and addresses.

Table with 4 columns: DOL, DOL, INTEGRITY MASONRY, INC., 732 3TH AVE WATERVILLE NY 14188. Includes various contractor names and addresses.

Table with 4 columns: DOL, DOL, KENNETH FIORENTINO, 375 LAKE SHORE DRIVE PUTNAM VALLEY NY 10979. Includes various contractor names and addresses.

Table with 4 columns: DOL, NYC, MATTEA KARAGIANI, 97-18 50TH AVE COPPOLANO NY 11998. Includes various contractor names and addresses.

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DOL	NYC	****4532	PROFESSIONAL PAVERS CORP.	65-05 WOODHAVEN BLVD. REGO PARK NY 11324	04/20/2017	04/20/2022
DOL	NYC		RASHEL CONSTRUCTION CORP.	88 N MCDONALD AVENUE BROOKLYN NY 11213	08/17/2020	08/17/2023
DOL	DOL	****1088	RATH MECHANICAL CONTRACTORS, INC.	24 ELDOR AVENUE NEW CITY NY 10928	02/03/2020	02/03/2023
DOL	DOL	****2633	RAW POWER ELECTRIC CORP.	34 PARK CIRCLE MIDDLETOWN NY 10940	01/01/2018	01/01/2023
DOL	AG	****7015	RCM PAINTING INC.	85-05 GRAND AVENUE 2ND FLOOR CARLETON NY 11275	02/07/2018	02/07/2023
DOL	DA	****7559	REGAL CONTRACTING INC.	31 WOODBINE AVE NORTHPORT NY 11768	10/19/2020	10/19/2025
DOL	DOL		REGINALD WARREN	181 ROBYN RD MONROE NY 10859	01/30/2018	01/30/2023
DOL	DOL	****9148	RICH T CONSTRUCTION	107 WILLOW WOOD LANE CAMELLIA NY 13051	11/13/2018	11/13/2023
DOL	DOL		RICHARD MACONE	8217 THIRD AVE BROOKLYN NY 11208	09/17/2018	09/17/2023
DOL	DOL		RICHARD REGGIO	1817 MAIN ST PERKINS NY 10869	03/07/2020	03/07/2025
DOL	DOL	****9146	RICHARD TIMAN	109 LAMONT AVE SYRACUSE NY 13209	10/18/2018	10/18/2023
DOL	DOL		RICHARD TIMAN JR.	128 LAMONT AVE SYRACUSE NY 13209	10/18/2018	10/18/2023
DOL	DOL		RICHARD TIMAN JR.	128 LAMONT AVE SYRACUSE NY 13209	11/15/2018	11/15/2023
DOL	DOL		ROBBY B BISSEBAR	85-31 SPRINGFIELD BLVD QUEEN VILLAGE NY 11357	01/11/2021	01/11/2026
DOL	DOL		ROBERT A VALERINO	3841 LAYHARD COURT NEWPORT RICHEY FL 34652	07/08/2019	07/08/2024
DOL	DOL		ROBERT BRUNO	5 MORNINGSIDE DRIVE AUBURN NY 13021	05/05/2019	05/05/2024
DOL	NYC		ROBERT HOFFMAN	148 4TH AVE NEW YORK NY 10010	12/20/2018	12/20/2021
DOL	DOL		RODERICK PUGH	404 OAK ST SUITE 1010A NEW YORK NY 10018	07/23/2018	07/23/2023
DOL	DOL	****1880	RODERICK PUGH CONSTRUCTION INC.	404 OAK ST SUITE 1010A NEW YORK NY 10018	07/23/2018	07/23/2023
DOL	DOL		RONALD WARREN	181 ROBYN RD MONROE NY 10859	01/30/2018	01/30/2023
DOL	DOL		RONALD MESSER	148 COMMERCIAL AVE ALBANY NY 12205	11/14/2018	11/14/2024
DOL	DOL		ROSEANNE CANTREANI	091/290/19	08/12/2023	
DOL	DOL		RYAN ALBIE	21 E HOWELLE POINT ROAD BELLPORT NY 11713	02/12/2017	02/12/2022
DOL	DOL	****3347	RYAN ALBIE CONTRACTING INC.	21 E HOWELLE POINT ROAD BELLPORT NY 11713	02/12/2017	02/12/2022
DOL	DOL	****3345	S & L PAINTING, INC.	11 MOUNTAIN ROAD P.O. BOX 4000 MONROE NY 10859	03/20/2019	03/20/2024
DOL	DOL	****7720	S O MARTIN GROUP INC.	2408 DELAWARE AVE NEWTON FALLS MA 02459	09/12/2018	09/12/2023
DOL	DOL		SAL FRESINA MASONRY CONTRACTORS, INC.	1735 TEAL AVENUE SYRACUSE NY 13209	07/18/2021	07/18/2026
DOL	DOL		SAL MASONRY CONTRACTORS, INC.	(SEE DOCUMENTS) SYRACUSE NY 13209	07/18/2021	07/18/2026
DOL	DOL	****8074	SALFREE ENTERPRISES INC	P.O. BOX 14 2824 GARDNER HIGHWAY #1 NEW YORK NY 13138	07/18/2021	07/18/2026
DOL	DOL		SALVATORE A FRESINA AKA SAM FRESINA	107 FACTORY AVE P.O. BOX 110 SYRACUSE NY 13208	07/18/2021	07/18/2026
DOL	DOL		SAM FRESINA	P.O. BOX 110 2378 WASHINGTON AVE SYRACUSE NY 13218	07/18/2021	07/18/2026
DOL	NYC	****2349	SAM WATERPROOFING INC	185-43 87TH AVENUE APT. L ANA HAVANA NY 11433	11/20/2019	11/20/2024
DOL	NYC		SANDEEP BOPARAI	185-45 85TH AVE FRESH MEADOWS NY 11355	10/17/2017	10/17/2022
DOL	NYC	****1130	SDAMA CONSTRUCTION CORP.	863 WASHINGTON STREET FRANKLIN SQUARE NY 11018	03/10/2020	03/10/2025

DOL	DOL	****2615	SCOTT DUFFIE	DUFFIE'S ELECTRIC, INC.	P.O. BOX 111 CORNWALL NY 12518	01/03/2020	01/03/2025
DOL	DOL		SCOTT DUFFIE		P.O. BOX 111 CORNWALL NY 12518	03/05/2020	03/05/2025
DOL	DOL	****9751	SCW CONSTRUCTION		644 OLD ROUTE 29 ACRES NY 12462	02/14/2017	04/14/2022
DOL	NYC	****5917	SHAIRA CONSTRUCTION CORP.		421 HUDSON STREET SUITE 205 NEW YORK NY 10014	02/20/2010	02/20/2024
DOL	DOL	****1981	SHANE BURDICK	CENTRAL TRAFFIC CONTROL, LLC.	2238 BAKER ROAD GILLETTS PA 16023	03/15/2018	03/15/2023
DOL	DOL		SHANE BURDICK		2238 BAKER ROAD GILLETTS PA 16023	03/15/2018	03/15/2023
DOL	DOL		SHANE NOLAN		8285 WASHINGTON ST LOCOPIST NY 12041	07/23/2018	07/23/2023
DOL	DOL		SHULEW LOWINGER		11 MOUNTAIN ROAD 28 VAN BUREL MONROE NY 10859	03/20/2019	03/20/2024
DOL	DOL	****0816	SOLAR ARRAY SOLUTIONS, LLC.		6385 WASHINGTON ST LOCOPIST NY 12041	07/23/2018	07/23/2023
DOL	DOL	****3440	SOLAR GUYS INC.		870 W GARDEN DR MANASSAS VA 20109	07/18/2021	07/18/2026
DOL	NYC		SOMATIE RAMSUNAHAI		115-08 129th ST SOUTH OZONE PARK NY 11420	08/17/2020	08/17/2025
DOL	DOL	****2221	SOUTH BUFFALO ELECTRIC, INC.		1205 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	DOL		STANADOS KALOGLAS		485 RAFT AVENUE YONKERS NY 11541	10/18/2021	10/18/2026
DOL	DOL	****3486	STAR INTERNATIONAL INC.		85-41 SPRINGFIELD BLVD GARDENS VILLAGE NY 11462	08/11/2020	08/11/2025
DOL	DOL	****0344	STEAM PLANT AND OILX SYSTEMS INC.		148 COMMERCIAL AVENUE ALBANY NY 12205	11/16/2018	11/16/2023
DOL	DOL	****9635	STEED GENERAL CONTRACTORS, INC.		1465 COMMERCE AVE BROOK NY 10481	02/20/2010	02/20/2024
DOL	DOL	****9528	STEEL-IT, LLC.		17613 SANTE FE LANE ROAD WYOMINGFIELD OH 43086	07/16/2021	07/16/2026
DOL	DOL		STEFANOS PAPASTEFANOI, JR. AKA STEVE PAPASTEFANO, JR.		28 VINEY HILLS RIVER RD UPPER SADDLE RIVER NJ 07081	05/20/2010	05/20/2024
DOL	DOL	****9761	STEPHEN C VIGAR		544 OLD ROUTE 33 ACRES NY 12462	03/14/2017	03/14/2022
DOL	DOL		STEVE TATE		215 FLAMER AVE 115 LAFAYETTE NY 13484	10/13/2018	10/13/2023
DOL	DOL		STEVEN MARTIN		2408 DELAWARE AVE NEWTON FALLS MA 02459	08/12/2018	08/12/2023
DOL	DOL		STEVEN TESTA		50 SALEM STREET - BLDG B LYNNFIELD MA 01904	01/23/2017	01/23/2022
DOL	DOL	****3600	SUBURBAN RESTORATION CO. INC.		610 SANTA PLACE FAIR LAWN PLACE NJ 07410	03/20/2021	03/20/2026
DOL	NYC	****6843	SUKHMANY CONSTRUCTION, INC.		188-09 80TH AVE FRESH MEADOWS NY 11355	10/17/2017	10/17/2022
DOL	DOL	****1000	SUNN ENTERPRISES GROUP, LLC		310 W. PLEASANTVIEW AVE SUITE 2-200 WACHSACK NJ 07081	02/11/2010	02/11/2024
DOL	DOL	****8209	SYRACUSE SCALERS, INC.		124 SOLAR ST SYRACUSE NY 13204	01/07/2018	01/07/2023
DOL	DOL		TALALA OCMAPA		1207 SW 44TH TERRACE ORENBORO FL 32414	01/18/2018	01/18/2023
DOL	DOL		TERRY THOMPSON		11271 RIDGE AVE WOODSTOCK NY 14890	02/03/2020	02/03/2025
DOL	DOL	****3733	TERSAL CONSTRUCTION SERVICES INC.		107 FACTORY AVE P.O. BOX 110 SYRACUSE NY 13208	07/18/2021	07/18/2026
DOL	DOL		TERSAL CONTRACTING, INC.		231 GARDNER RD P.O. BOX 10000 NEW YORK NY 10018	07/18/2021	07/18/2026
DOL	DOL		TERSAL DEVELOPMENT CORP.		1855 TEAL AVENUE SYRACUSE NY 13208	07/18/2021	07/18/2026
DOL	DOL		TEST		P.O. BOX 123 ALBANY NY 12204	03/20/2020	03/20/2024
DOL	DOL	****6789	TEST000		P.O. BOX 123 ALBANY NY 12204	03/20/2020	03/20/2024
DOL	DOL	****9570	TGTA CORP		50 SALEM STREET - BLDG B LYNNFIELD MA 01904	01/23/2017	01/23/2022

Article 8

TOWN OF DUANEBSBURG, NY
 MARLAVILLE WATER / NYS CONTRACT NUMBER # DD01-C0079902-3350000
 ULTRA-VIOLET (UV) DISINFECTION PROJECT
 CONTRACT No. TD1-9-21 GENERAL

DOL	DOL	****5768	THE COKER CORPORATION	COKER CORPORATION	2890 SOUTH SALINA ST SUITE 145 SYRACUSE NY 13208	12/04/2018	12/04/2023
DOL	DOL	****3766	THE COKER CORPORATION	COKER CORPORATION	2890 SOUTH SALINA ST SUITE 145 SYRACUSE NY 13208	09/17/2020	09/17/2025
DOL	DA	****4108	TRIPLE H CONCRETE CORP.		2378 HAYDON STREET ROYALTON CT 06488	06/04/2021	06/04/2026
DOL	DOL	****9392	VALK CORP.		8517 THIRD AVE BROOKLYN NY 11209	08/11/2018	08/11/2023
DOL	DOL	****5418	VALMULLA CONSTRUCTION, LLC.		796 FILETS ROAD FRANKLIN LAKE NJ 07417	12/01/2020	12/01/2025
DOL	NYC	****7381	VARLE HOLDINGS, INC.	MOVING MANAGER	1010 NORTHERN BLVD. ONEAT NEW NY 10921	03/09/2017	03/09/2022
DOL	NYC	****2428	VIKRAM MANERI	VICK CONSTRUCTION	21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	NYC		VIKRAM MANGRU		21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	DOL		VICTOR ALONZI		42-32 235TH ST DOUGLASSTON NY 11363	01/16/2019	01/16/2024
DOL	NYC		VIKTOR PATONICH		2620 CROSBY AVE BROOKLYN NY 11214	10/30/2018	10/30/2023
DOL	DOL		VICTORIA RATH		26 ELDOR AVENUE NEW CITY NY 10928	02/03/2020	02/03/2025
DOL	NYC		VITO GARGANO		8535 REHOBOTH AVE STATEN ISLAND NY 10314	12/13/2017	12/13/2022
DOL	NYC	****9373	WALTERS AND WALTERS, INC.		455 EAST AND THIRD ST MT VERNON NY 10220	03/08/2019	03/08/2024
DOL	DOL	****3236	WESTERN NEW YORK CONTRACTORS, INC.		3841 LAYHARD COURT NEWPORT RICHEY FL 34652	07/08/2019	07/08/2024
DOL	DOL		WHITE PLAINS CARPENTRY CORP.		442 ARMONK RD	09/12/2010	09/12/2023
DOL	DOL		WILLIAM C WATKINS		1228 JAMES STREET SYRACUSE NY 13205	05/02/2017	05/02/2022
DOL	DOL		WILLIAM G. PROCFRIEDT		85 SPRUCEWOOD ROAD WEST MONROE NY 11704	01/19/2021	01/19/2026
DOL	DOL	****9924	WILLIAM G. PROPHY, LLC	WSP CONTRACTING & INC.	54 PENNAQUIT AVE BAYSHIRE NY 11709	01/19/2021	01/19/2026
DOL	DOL	****4043	WINDSHIELD INSTALLATION NETWORK, INC.		201 LATTA BROOK PARK HICKENSBURG MA 01846	03/09/2019	03/09/2024
DOL	DOL	****4730	XOC SYSTEMS, LLC	TDI GOLF	418 GLADE AVE #202 STUART FL 34984	10/31/2018	10/31/2023
DOL	NYC		ZAKIR NASEEM		30 MEADOW ST BROOKLYN NY 11208	10/10/2017	10/10/2022
DOL	NYC	****8277	ZHN CONTRACTING CORP		30 MEADOW ST BROOKLYN NY 11208	10/10/2017	10/10/2022

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"ATTACHMENT A-1 PROGRAM SPECIFIC
TERMS AND CONDITIONS",
Standard Clauses for All New York State
Department of Environmental Conservation
Contracts

DELAWARE ENGINEERING, D.P.C.

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ATTACHMENT A-1
PROGRAM SPECIFIC TERMS AND CONDITIONS
Standard Clauses for All New York State
Department of Environmental Conservation Contracts

The parties to the attached contract, license, lease, grant, amendment or other agreement of any kind (hereinafter "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" hereinafter refers to any party to the contract, other than the New York State Department of Environmental Conservation (hereinafter "Department").

A) AGENCY SPECIFIC TERMS AND CONDITIONS

I. Postponement, suspension, abandonment or termination by the Department: Within 15 days of receipt of notice, the Contractor shall deliver to the Department all data, reports, plans, or other documentation related to the performance of this contract, including but not limited to source codes and specifications, guarantees, warranties, as-built plans and shop drawings. In any of these events, the Department shall make settlement with the Contractor upon an equitable basis as determined by the Department which shall fix the value of the work which was performed by the Contractor prior to the postponement, suspension, abandonment or termination of this contract. This clause shall not apply to this contract if the contract contains other provisions applicable to postponement, suspension or termination of the contract.

II. Conflict of Interest

(a) Organizational Conflict of Interest - To the best of the Contractor's knowledge and belief, the Contractor warrants that there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as herein defined, or that the Contractor has disclosed all such relevant information to the Department.

(1) An organizational conflict of interest exists when the nature of the work to be performed under this contract may, without some restriction on future activities, impair or appear to impair the Contractor's objectivity in performing the work for the Department.

(2) The Contractor agrees that if an actual, or potential organizational conflict of interest is discovered at any time after award, whether before or during performance, the Contractor will immediately make a full disclosure in writing to the Department. This disclosure shall include a description of actions which the Contractor has taken or proposes to take, after consultation with the Department, to avoid, mitigate, or minimize the actual or potential conflict.

(3) To the extent that the work under this contract requires access to personal, proprietary or confidential business or financial data of persons or other companies, and as long as such data remains proprietary or confidential, the Contractor shall protect such data from unauthorized use and disclosure and agrees not to use it to compete with such companies.

(b) Personal Conflict of Interest - The following provisions with regard to management or professional level employee personnel performing under this contract shall apply until the earlier of the termination date of the affected employee(s) or the duration of the contract.

(1) A personal conflict of interest is defined as a relationship of an employee, subcontractor employee, or consultant with an entity that may impair or appear to impair the objectivity of the employee, subcontractor employee, or consultant in performing the contract work. The Contractor agrees to notify the Department immediately of any actual or potential personal conflict of interest with regard to any such person working on or having access to information regarding this contract, as soon as Contractor becomes aware of such conflict. The Department will notify the Contractor of the appropriate action to be taken.

(2) The Contractor agrees to advise all management or professional level employees involved in the work of this contract, that they must report any personal conflicts of interest to the Contractor. The Contractor must then advise the Department which will advise the Contractor of the appropriate action to be taken.

(3) Unless waived by the Department, the Contractor shall certify annually that, to the best of the Contractor's knowledge and belief, all actual, apparent or potential conflicts of interest, both personal and organizational, as defined herein, have been reported to the Department. Such certification must be signed by a senior executive of the Contractor and submitted in accordance with instructions provided by the Department. Along with the annual certification, the Contractor shall also submit an update of any changes in any conflict of interest plan submitted with its proposal for this contract. The initial certification shall cover the one-year period from the date of contract award, and all subsequent certifications shall cover successive annual periods thereafter. The certification is to be submitted no later than 45 days after the close of the previous certification period covered.

(4) In performing this contract, the Contractor recognizes that its employees may have access to data, either provided by the Department or first generated during contract performance, of a sensitive nature which should not be released without Department approval. If this situation occurs, the Contractor agrees to obtain confidentiality agreements from all affected employees working on requirements under this contract including subcontractors and consultants. Such agreements shall contain provisions which stipulate that each employee agrees not to disclose, either in whole or in part, to any entity external to the Department, Department of Health or the New York Department of Law, any information or data provided by the Department or first generated by the Contractor under this contract, any site-specific cost information, or any enforcement strategy without first obtaining the written permission of the Department. If a Contractor, through an employee or otherwise, is subpoenaed to testify or produce documents, which could result in such disclosure, the Contractor must provide immediate advance notification to the Department so that the Department can authorize such disclosure or have the opportunity to take action to prevent such disclosure. Such agreements shall be effective for the life of the contract and for a period of five (5) years after completion of the contract.

(c) Remedies - The Department may terminate this contract in whole or in part, if it deems such termination necessary to avoid an organizational or personal conflict of interest, or an unauthorized disclosure of information. If the Contractor fails to make required disclosures or misrepresents relevant information to the Department, the Department may terminate the contract, or pursue such other remedies as may be permitted by the terms of Clause 1 of this Attachment or other applicable provisions of this contract regarding termination.

(d) The Contractor will be ineligible to make a proposal or bid on a contract for which the Contractor has developed the statement of work or the solicitation package

(e) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder (except for subcontracts or consultant agreements for well drilling, fence erecting, plumbing, utility hookups, security guard services, or electrical services) provisions which shall conform substantially to the language of this clause, including this paragraph (e), unless otherwise authorized by the Department.

III. Dispute Resolution

The parties agree to the following steps, or as many as are necessary to resolve disputes between the Department and the Contractor.

(a) The Contractor specifically agrees to submit, in the first instance, any dispute relating to this contract to the designated individual, who shall render a written decision and furnish a copy thereof to the Contractor.

(1) The Contractor must request such decision in writing no more than fifteen days after it knew or should have known of the facts which are the basis of the dispute.

(2) The decision of the designated individual shall be the final DEC determination, unless the Contractor files a written appeal of that decision with the designated appeal individual ("DAI") within twenty days of receipt of that decision.

(b) Upon receipt of the written appeal, the DAI will review the record and decision. Following divisional procedures in effect at that time, the DAI will take one of the following actions, with written notice to the Contractor.

(1) Remand the matter to the program staff for further negotiation or information if it is determined that the matter is not ripe for review; or

(2) Determine that there is no need for further action, and that the determination of the designated individual is confirmed; or

(3) Make a determination on the record as it exists.

- (c) The decision of the DAI shall be the final DEC decision unless the Contractor files a written appeal of that decision with the Chair of the Contract Review Committee ("CRC") within twenty days of receipt of that decision.

The designated individual to hear disputes is:

Koon Tung, Director, Bureau of Water Resource Management
NYS DEC, Division of Water
625 Broadway, 4th Floor, Albany, NY 12233-3508
(518) 402-8238

The designated appeal individual to review decisions is:

Alan Fuchs, Director, Bureau of Flood Protection and Dam Safety
NYSDEC division of Water
625 Broadway, 4th Floor, Albany, New York 12233-3504
(518) 402-8185

The Chair of the Contract Review Committee is:

Department of Environmental Conservation
Nancy W. Lussier, Chair
Contract Review Committee
625 Broadway
Albany, NY 12233-5010
Telephone: (518) 402-9228

- (d) Upon receipt of the written appeal, the Chair of the CRC, in consultation with the members of the CRC and the Office of General Counsel, will take one of the following actions, or a combination thereof, with written notice to the Contractor.

- (1) Remand the matter to program staff for additional fact finding, negotiation, or other appropriate action; or
 - (2) Adopt the decision of the DAI; or
 - (3) Consider the matter for review by the CRC in accordance with its procedures.
- (e) Following a decision to proceed pursuant to (d) 3, above, the Chair of the CRC shall convene a proceeding in accordance with the CRC's established contract dispute resolution guidelines. The proceeding will provide the Contractor with an opportunity to be heard.
- (f) Following a decision pursuant to (d) 2 or (d) 3, the CRC shall make a written recommendation to the Deputy Commissioner for Administration who shall render the final DEC determination.
- (g) At any time during the dispute resolution process, and upon mutual agreement of the parties, the Office of Hearings and Mediation Services (OHMS) may be requested to provide mediation services or other appropriate means to assist in resolving the dispute. Any findings or recommendations made by the OHMS will not be binding on either party.
- (h) Final DEC determinations shall be subject to review only pursuant to Article 78 of the Civil Practice Law and Rules.
- (i) Pending final determination of a dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract in accordance with the decision of the designated individual. Nothing in this Contract shall be construed as making final the decision of any administrative officer upon a question of law.
- (j)(1) Notwithstanding the foregoing, at the option of the Contractor, the following shall be subject to review by the CRC: Disputes arising under Article 15-A of the Executive Law (Minority and Women Owned Business participation), the Department's determination with respect to the adequacy of the Contractor's Utilization Plan, or the Contractor's slowing of good faith efforts to comply therewith. A request for a review before the CRC should be made, in writing,

within twenty days of receipt of the Department's determination.

- (2) The CRC will promptly convene a review in accordance with Article 15-A of the Executive Law and the regulations promulgated thereunder.

IV. Tax Exemption

Pursuant to Tax Law Section 1116, the State is exempt from sales and use taxes. A standard state voucher is sufficient evidence thereof. For federal excise taxes, New York's registration Number 14740026K covers tax-free transactions under the Internal Revenue Code.

V. Litigation Support

In the event the Department becomes involved in litigation related to the subject matter of this contract, the Contractor agrees to provide background support and other litigation support, including but not limited to depositions, appearances, and testimony. Any compensation paid to the Contractor under this paragraph will be negotiated and based on the rates established in the contract, or as may otherwise be provided in the contract. No compensation for such support will be paid if the litigation is the result of the Contractor's misconduct, negligence or omissions.

VI. Inventions or Discoveries

The scope of work of this agreement shall not include any inventions. If however, an invention results from this project it shall be owned as follows:

Any invention or discovery first made or conceived and reduced to practice in the performance of this Contract solely by the Contractor shall remain with the Contractor; provided that the Contractor shall grant to the Department and the State a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for on behalf of the Department and the State the subject copyright throughout the world, where the Contractor is able to do so.

Any invention or discovery made or conceived and reduced to practice in the performance of this Contract solely by Department or State shall remain with the State; provided that the Department or State shall grant to the Contractor a nonexclusive, nontransferable, irrevocable, paid-up license to use for non-commercial research, educational, and public service purposes.

Any invention or discovery made or conceived and reduced to practice in the performance of this Contract jointly by Contractor and Department or State in the performance of this work shall be jointly held by the Contractor and Department or State.

VII. Intellectual Property and Copyright Materials

- (a) Title to, and the right to determine the disposition of any copyrights, or copyrightable material, first produced or created solely by Contractor in the performance of this work shall remain with the Contractor; provided that the Contractor shall grant to the Department and the State a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for on behalf of the Department and the State the subject copyright throughout the world, where the Contractor is able to do so.

Title to, and the right to determine the disposition of any copyrights, or copyrightable material, first produced or created solely by Department or State in the performance of this work shall remain with the State; provided that the Department or State shall grant to the Contractor a nonexclusive, nontransferable, irrevocable, paid-up license to use for non-commercial research, educational, and public service purposes.

Title to, and the right to determine the disposition of any copyrights, or copyrightable material, first produced or created jointly by Contractor and Department or State in the performance of this work shall be jointly held by the Contractor and Department or State.

VIII. Patent and Copyright Protection

If any patented or copyrighted material is involved in or results from the performance of this Contract, this Article shall apply.

- (a) The Contractor shall, at its expense, defend any suit instituted against the Department and indemnify the Department against any award of damages and costs made against the Department by a final judgment of a court of last resort based on the claim that any of the products, services or consumable supplies furnished by the Contractor under this Contract

infringes any patent, copyright or other proprietary right; provided the Department gives the Contractor:

- (1) prompt written notice of any action, claim or threat of infringement suit, or other suit, and
 - (2) the opportunity to take over, settle or defend such action at the Contractor's sole expense, and
 - (3) all available information, assistance and authority necessary to the action, at the Contractor's sole expense.
- The Contractor shall control the defense of any such suit, including appeals, and all negotiations to effect settlement, but shall keep the Department fully informed concerning the progress of the litigation.
- (b) If the use of any item(s) or parts thereof is held to infringe a patent or copyright and its use is enjoined, or Contractor believes it will be enjoined, the Contractor shall have the right, at its election and expense to take action in the following order of precedence:
- (1) procure for the Department the right to continue using the same items or parts thereof;
 - (2) modify the same so that it becomes non-infringing and of at least the same quality and performance;
 - (3) replace the item(s) or parts thereof with noninfringing items of at least the same quality and performance;
 - (4) if none of the above remedies are available, discontinue its use and eliminate any future charges or royalties pertaining thereto. The Contractor will buy back the infringing product(s) at the State's book value, or in the event of a lease, the parties shall terminate the lease. If discontinuation or elimination results in the Contractor not being able to perform the Contract, the Contract shall be terminated.
- (c) In the event that an action at law or in equity is commenced against the Department arising out of a claim that the Department's use of any item or material pursuant to or resulting from this Contract infringes any patent, copyright or proprietary right, and such action is forwarded by the Department to the Contractor for defense and indemnification pursuant to this Article, the Department shall copy all pleadings and documents forwarded to the Contractor together with the forwarding correspondence and a copy of this Contract to the Office of the Attorney General of the State of New York. If upon receipt of such request for defense, or at any time thereafter, the Contractor is of the opinion that the allegations in such action, in whole or in part, are not covered by the indemnification set forth in this Article, the Contractor shall immediately notify the Department and the Office of the Attorney General of the State of New York in writing and shall specify to what extent the Contractor believes it is and is not obligated to defend and indemnify under the terms and conditions of this Contract. The Contractor shall in such event protect the interests of the Department and State of New York and secure a continuance to permit the State of New York to appear and defend its interests in cooperation with Contractor as is appropriate, including any jurisdictional defenses which the Department and State shall have.
- (d) The Contractor shall, however, have no liability to the Department under this Article if any infringement is based upon or arises out of:
- (1) compliance with designs, plans, or specifications furnished by or on behalf of the Department as to the items;
 - (2) alterations of the items by the Department;
 - (3) failure of the Department to use updated items provided by the Contractor for avoiding infringement;
 - (4) use of items in combination with apparatus or devices not delivered by the Contractor;
 - (5) use of items in a manner for which the same were neither designed nor contemplated; or
 - (6) a patent or copyright in which the Department or any affiliate or subsidiary of the Department has any direct or indirect interest by license or otherwise.
- (e) The foregoing states the Contractor's entire liability for, or resulting from, patent or copyright infringement or claim thereof.

IX. Freedom of Information Requests

In response to a Freedom of Information Law (FOIL) request received by the Department, the Contractor agrees to provide to the Department records generated by the Contractor as a result of this contract's scope of work that are responsive to the FOIL request. The contractor may request that the Department except from disclosure records on the basis that they contain trade secrets or confidential commercial information in accordance with FOIL (Public Officers Law Section 87 and 6 NYCRR Part 616).

X. Article 15-Requirements

PARTICIPATION BY MINORITY GROUP MEMBERS AND WOMEN WITH RESPECT TO STATE CONTRACTS: REQUIREMENTS AND PROCEDURES

- (a) **General Provisions**

- (1) The Department is required to implement the provisions of New York State Executive Law Article 15-A and 5 NYCRR Parts 142-144 ("MWBE Regulations") for all State contracts as defined therein, with a value (1) in excess of \$25,000 for labor, services, equipment, materials, or any combination of the foregoing or (2) in excess of \$100,000 for real property renovations and construction.
- (2) The Contractor to the subject contract (the "Contractor" and the "Contract," respectively) agrees, in addition to any other nondiscrimination provision of the Contract and at no additional cost to the New York State Department (the "Department"), to fully comply and cooperate with the Department in the implementation of New York State Executive Law Article 15-A. These requirements include equal employment opportunities for minority group members and women ("EEO") and contracting opportunities for certified minority and women-owned business enterprises ("MWBEs"). Contractor's demonstration of "good faith efforts" pursuant to 5 NYCRR §142.8 shall be a part of these requirements. These provisions shall be deemed supplementary to, and not in lieu of, the nondiscrimination provisions required by New York State Executive Law Article 15 (the "Human Rights Law") or other applicable federal, state or local laws.
- (3) Failure to comply with all of the requirements herein may result in a finding of non-responsiveness, non-responsibility and/or a breach of contract, leading to the withholding of funds or such other actions, liquidated damages pursuant to Section VII of this Article or enforcement proceedings as allowed by the Contract.

(b) **Contract Goals**

- (1) For purposes of this procurement, the Department hereby establishes an overall goal of up to **20%** for Minority and Women-Owned Business Enterprises ("MWBE") participation, (based on the current availability of qualified MBES and WBES).

- (2) For purposes of providing meaningful participation by MWBEs on the Contract and achieving the Contract Goals established in Section II-A hereof, Contractor should reference the directory of New York State Certified MWBEs found at the following internet address: <https://www.nyscontracts.com>

Additionally, the Contractor is encouraged to contact the Division of Minority and Women Business Development ((518) 292-5250; (212) 803-2414; or (716) 846-8200) to discuss additional methods of maximizing participation by MWBEs on the Contract.

- (3) Where MWBE goals have been established herein, pursuant to 5 NYCRR §142.8, Contractor must document "good faith efforts" to provide meaningful participation by MWBEs as subcontractors or suppliers in the performance of the Contract. In accordance with Section 316-a of Article 15-A and 5 NYCRR §142.13, the Contractor acknowledges that if Contractor is found to have willfully and intentionally failed to comply with the MWBE participation goals set forth in the Contract, such a finding constitutes a breach of contract and the Contractor shall be liable to the Department for liquidated or other appropriate damages, as set forth herein.

(c) **Equal Employment Opportunity (EEO)**

- (1) Contractor agrees to be bound by the provisions of Article 15-A and the MWBE Regulations promulgated by the Division of Minority and Women's Business Development of the State of Economic Development (the "Division"). If any of these terms or provisions conflict with applicable law or regulations, such laws and regulations shall supersede these requirements. Contractor shall comply with the following provisions of Article 15-A:

- (i) Contractor and Subcontractors shall undertake or continue existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status. For these purposes, EEO shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation.
- (ii) The Contractor shall submit an EEO policy statement to the Department within seventy two (72) hours after the date of the notice by Department to award the Contract to the Contractor.
- (iii) If Contractor or Subcontractor does not have an existing EEO policy statement, the Department may provide the Contractor or Subcontractor a model statement. This statement can be found at the link provided in Section 8.
- (iv) The Contractor's EEO policy statement shall include the following language:
 - a. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability or marital status, will undertake or continue existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination, and shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force.
 - b. The Contractor shall state in all solicitations or advertisements for employees that, in the performance of the contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.
 - c. The Contractor shall request each employer, Department, 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 employer, Department, 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.
 - d. The Contractor will include the provisions of Subdivisions (a) through (c) of this Subsection 4 and Paragraph "E" of this Section III, which provides for relevant provisions of the Human Rights Law, in every subcontract in such a manner that the requirements of the subdivisions will be binding upon each subcontractor as to work in connection with the Contract.
 - e. EEO Contract Goals for the purposes of this procurement, the Department hereby establishes a goal of 2% Minority Labor Force Participation, 2% Female Labor Force Participation.
- (2) Staffing Plan Form

To ensure compliance with this Section, the Contractor shall submit a staffing plan to document the composition of the proposed workforce to be utilized in the performance of the Contract by the specified categories listed, including ethnic background, gender, and Federal occupational categories. Contractors shall complete the Staffing plan as part of the MWBE Utilization Plan and submit at the time of award of the contract.
- (3) Workforce Employment Utilization Report Form ("Workforce Report")
 - (i) Once a contract has been awarded and during the term of Contract, Contractor is responsible for updating and providing notice to the Department of any changes to the previously submitted Staffing Plan. This information is to be submitted on a quarterly basis during the term of the Contract to report the actual workforce utilized in the performance of the Contract by the specified categories listed including ethnic background, gender, and Federal occupational categories. The Workforce Report must be submitted to report this information.
 - (ii) Separate forms shall be completed by Contractor and any subcontractor performing work on the Contract.
 - (iii) In limited instances, Contractor may not be able to separate out the workforce utilized in the performance of the Contract from Contractor's and/or subcontractor's total workforce. When a separation can be made, Contractor shall submit the Workforce Report and indicate that the information provided related to the actual workforce utilized on

the Contract, when the workforce to be utilized on the contract cannot be separated out from Contractor's and/or subcontractor's total workforce, Contractor shall submit the Workforce Report and indicate that the information provided is Contractor's total workforce during the subject time frame, not limited to work specifically under the Contract.

- (4) Contractor shall comply with the provisions of the Human Rights Law, all other State and Federal statutory and constitutional non-discrimination provisions. Contractor and 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.
- (5) MWBE Utilization Plan
 - (1) The Contractor represents and warrants that Contractor has submitted an MWBE Utilization Plan either prior to, or at the time of, the execution of the contract.
 - (2) Contractor agrees to use such MWBE Utilization Plan for the performance of MWBEs on the Contract pursuant to the prescribed MWBE goals set forth in Section X-B-1 of this Attachment.
 - (3) Contractor further agrees that a failure to submit and/or use such MWBE Utilization Plan shall constitute a material breach of the terms of the Contract. Upon the occurrence of such a material breach, Department shall be entitled to any remedy provided herein, including but not limited to, a finding of Contractor non-responsiveness.
 - (6) Waivers
 - (1) For Waiver Requests Contractor should use Waiver Request Form.
 - (2) If the Contractor, after making good faith efforts, is unable to comply with MWBE goals, the Contractor may submit a Request for Waiver form documenting good faith efforts by the Contractor to meet such goals. If the documentation included with the waiver request is complete, the Department shall evaluate the request and issue a written notice of acceptance or denial within twenty (20) days of receipt.
 - (3) If the Department, upon review of the MWBE Utilization Plan and updated Quarterly MWBE Contractor Compliance Reports determines that Contractor is failing or refusing to comply with the Contract goals and no waiver has been issued in regards to such non-compliance, the Department may issue a notice of deficiency to the Contractor. The Contractor must respond to the notice of deficiency within seven (7) business days of receipt. Such response may include a request for partial or total waiver of MWBE Contract Goals.
 - (7) Quarterly MWBE Contractor Compliance Report

Contractor is required to submit a Quarterly MWBE Contractor Compliance Report Form to the Department by the 10th day following each end of quarter over the term of the Contract documenting the progress made towards achievement of the MWBE goals of the Contract.

 - (a) Liquidated Damages - MWBE Participation
 - (1) Where Department determines that Contractor is not in compliance with the requirements of the Contract and Contractor refuses to comply with such requirements, or if Contractor is found to have willfully and intentionally failed to comply with the MWBE participation goals, Contractor shall be obligated to pay to the Department liquidated damages.
 - (2) Such liquidated damages shall be calculated as an amount equating the difference between:
 - (i) All sums identified for payment to MWBEs had the Contractor achieved the contractual MWBE goals; and
 - (ii) All sums actually paid to MWBEs for work performed or materials supplied under the Contract.
 - (3) In the event a determination has been made which requires the payment of liquidated damages and such identified sums have not been withheld by the Department, Contractor shall pay such liquidated damages to the Department within sixty (60) days after they are assessed by the Department unless prior to the expiration of such sixtieth day, the Contractor has filed a complaint with the Director of the Division of Minority and Woman Business Development pursuant to Subdivision 8 of Section 3.13 of the Executive Law in which event the liquidated damages shall be payable if Director renders a decision in favor of the Department.
 - (b) Forms

Forms referenced in this Article can be found at <http://www.das.ny.gov/about/18854.html>

XI. Iron Divestment Act Requirements

By entering into this Agreement, Contractor certifies in accordance with State Finance Law §165-a that it is not on the "Entities Determined to be Non-Responsive Bidders/Offerors pursuant to the New York State Iron Divestment Act of 2012" ("Prohibited Entities List") posted at: <http://www.pgs.ny.gov/about/rma/docs/12listofentities.pdf>

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 State.

During the term of the Contract, should the state agency receive information that a person (as defined in State Finance Law §165-a) is in violation of the above-referenced certifications, the state agency 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 state agency 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.

The state agency reserves the right to reject any bid, request for assignment, renewal or extension for an entity that appears on the Prohibited Entities List prior to the award, assignment, renewal or extension of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the Prohibited Entities List after contract award.

XII. Americans With Disabilities Act

In the event the monies defined herein are to be used for the development of facilities, outdoor recreation areas, transportation or written or spoken communication with the public, the Contractor shall comply with all requirements for providing access for individuals with disabilities as established by Article 4A of the New York State Public Buildings Law, Americans with Disabilities Act, and relevant sections of the New York State Uniform Fire Prevention and Building Code. Standards for certain Recreation Facilities are found in the 2010 ADA Standards for Accessible Design while others are found in the Architectural Barriers Act Accessibility Guidelines for Outdoor Recreation Areas. <https://www.access-board.gov/guidelines-and-standards>

XIII. Public Access to Facilities

If applicable to the project, the Contractor agrees to allow public access to any facilities developed with monies defined herein on the same basis to all residents of New York State for a period not less than five (5) years after the date of final payment under this Contract or five (5) years after the date that the final payment was due. Failure to comply with the provisions of this clause shall be considered an abandonment of the Project.

XIV. Project Insurance Considerations

Refer to project insurance requirements as set forth in A-1 (B) Program Specific Terms and Conditions.

XV. Amendment/Extensions

The Contract may be amended and/or extended by mutual written consent of all parties. Amendment forms will be incorporated into this Contract and will not take effect until approved by all applicable State agencies and final approval by the Office of the State Comptroller, if applicable. Contract amendments may be conditioned upon funds being re-appropriated in the State Budget each state fiscal year to the Department.

XVI. Environmental Protection Fund Acknowledgement

If applicable, in recognition of a portion of the Department funds utilized for any work completed under this Contract, the Contractor agrees to acknowledge in any communication to the public, that such funding was provided from the Environmental Protection Fund as administered by the New York State Department of Environmental Conservation.

XVII. Vendor Responsibility

- A. The Contractor shall at all times during the Contract term remain responsible. The Contractor agrees, if requested by the Commissioner or his or her designee, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity.

B. The Department recommends that vendors file a required Vendor Responsibility Questionnaire online via the New York State VendorReg System. To enroll in and use the New York State VendorReg System, see the VendorReg System Instructions available at http://www.pgs.state.ny.us/vendorreg/vendor_index.htm or go directly to the VendorReg System online at <http://portal.pgs.state.ny.us>.

C. Vendors must provide their New York State Identification Number when enrolling. To request assignment of a Vendor ID or for VendorReg System assistance, contact the Office of the State Comptroller's Help Desk at 866-370-6672 or 518-408-6772 or by email at helpdesk@pds.ny.us. Vendors opting to complete and submit a paper questionnaire can obtain the appropriate questionnaire from the VendorReg website www.pgs.state.ny.us/vendorreg or may contact the Department of the Office of the State Comptroller's Help Desk for a copy of the paper form.

D. Upon written notice to the Contractor, and a reasonable opportunity to be heard, with appropriate Department officials or staff, the Contract may be terminated by the Commissioner or his or her designee at the Contractor's expense where the Contractor is determined by the Commissioner or his or her designee to be non-responsive. In such event, the Commissioner or his or her designee may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for breach.

XVIII. Permits

- A. If applicable, the Contractor agrees to obtain all required permits, including but not limited to, local, state and federal permits prior to the commencement of any project related work. The Contractor agrees that all work performed in relation to the project by the Contractor or its agents, representatives, or contractors will comply with all relevant federal, state and local laws, rules, regulations and standards, zoning and building codes, ordinances, operating certificates for facilities, or licenses for an activity.
- B. With respect to the project, the contractor certifies that it has complied, and shall continue to comply with all requirements of the State Environmental Quality Review Act (SEQRA). The Contractor agrees to provide all environmental documents as may be required by the Department. The Contractor has notified, and shall continue to notify, the Department of all actions proposed for complying with the environmental review requirements imposed by SEQRA.

XIX. Approvals

The Contractor agrees that the project will be performed in accordance with the condition of any applicable administrative, judicial or governmental orders or approvals.

XX. Site Access

If applicable, the Contractor represents it has or will obtain title to or sufficient interest in the project site, including rights-of-way and necessary easements, before the start of the project to ensure unobstructed use and possession for purposes of construction and completion of the project, as well as operation of the project throughout its useful life.

XXI. Cost Overruns

If applicable, any cost overruns will not be paid by the Department and the Department is not committed to seeking additional appropriations or re-appropriation of funds and will not be responsible for the maintenance and operation of any facility which may be developed or equipment which may be purchased with the funds herein identified.

XXII. Construction Plans

It is the Contractor's responsibility (if applicable to the Project) to have all construction contract plans, specifications and cost estimates certified by a professional engineer licensed to practice in the State of New York. All certified plans and specifications shall become part of this Contract and shall be kept on the project site at all times.

XXIII. Payment and Reporting

- A. The Contractor agrees to fully fund the Project and then seek reimbursement from the Department for eligible project costs. The Department will not process final payment for this Contract, until the Department determines that the project was completed satisfactorily and upon receipt of all required final close-out payment documentation in accordance with the direction and requirements described in Attachment D.
- B. The Contractor will be entitled to receive reimbursement payments for work, projects, and/or services rendered as detailed and described in Attachment C and Attachment D of this Contract. Claims for reimbursement must be

unaccompanied by such receipts and documents verifying expenditures as may be required by the Department and by the Comptroller. Satisfactory documentation shall include, but is not limited to, signed copies of payment vouchers or invoices, canceled checks or the latest cumulative work-in-place estimate for each construction Contract, and any further documentation as may be required by the Department and/or the Comptroller. The Department reserves the right, in its sole discretion, to determine if the reimbursement request and accompanying documentation submitted by the Contractor is in satisfactory form and substance. A final payment determination will be based upon the Department's review of the Contractor's final voucher submission and reporting as described in Attachment D.

XXIV. On-Site Inspections
The State, Department or authorized representatives will conduct a review of the Project funded from this Contract, which may include on-site inspections, at a time that is satisfactory to the Department.

XXV. Prohibition on Purchase of Tropical Hardwoods
The Contractor certifies and warrants that all wood products to be used under this contract award will be in accordance with, but not limited to, the specifications and provisions of Section 165 of the State Finance Law, (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State of 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 State. 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 § 165 State Finance Law. Any such use must meet with the approval of the State; 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 State.

B) PROGRAM SPECIFIC TERMS AND CONDITIONS

I. Notices:
The Department's authorized representative for the implementation of this Contract and for approval, direction and receipt of all Project reports called for in this Contract is listed below. Whenever it is provided in this Contract that notice must be given or other communications sent to the Department, the notices or communications must be in writing and delivered or sent to the Department's authorized representative at:

Address: Division of Water Contract Liaison, Fiscal Planning and Management Section
New York State Department of Environmental Conservation
625 Broadway - 4th Floor, Albany, NY 12233-3506
518-402-8219

A copy of all legal notices shall be sent to:

General Counsel
New York State Department of Environmental Conservation
625 Broadway - 14th Floor
Albany, New York 12233-1500

The Contractor's authorized representative for the implementation of this Contract is the person authorized in the Resolution of Support for the contract. Notices or communications regarding this Contract should be in writing and delivered or sent to the Contractor's authorized representative at the address identified on the Face Page, with copies sent to the Contractor's contract administrator as identified in the contract application.

Notices delivered or sent shall be deemed for all purposes as notice to all persons who are Parties to this Contract as Department or Contractor.

II. Project Insurance Considerations

The Contractor agrees to procure and maintain at its own expense and without expense to the Department until final acceptance by this Department of the services covered by this Contract, insurance of the kinds and amounts as required and determined by the Department and based upon the project work plan. The insurance policies should be provided by

FORM #	FORM TITLE
DB-120.1	Certificate of Disability Benefit Insurance
DB-155	Certificate of Disability Benefit Self-Insurance
CE-200	Certificate of Attestation of Exemption - (no employees)

An ACORD form is NOT an acceptable proof of Workers' Compensation coverage. ALL OF THE ABOVE REFERENCED FORMS, EXCEPT CE-200, SI-12 & DB-155 MUST NAME The State of New York and The New York State Department of Environmental Conservation, Division of Water, 625 Broadway, 4th Floor, Albany, NY 12233-3500, as the Entity Requesting Proof of Coverage.

Additional information can be obtained at the Worker's Compensation website:
<http://www.wcb.ny.gov/content/main/CompCover/Employers.jsp>

Upon review of the scope of work outlined in the Grant Application by the Department, the following types of liability insurance may be required:

- C. Commercial General Liability Insurance with a limit of not less than \$2,000,000 each occurrence, and \$5,000,000 General aggregate. Such insurance shall cover liability arising from premises operations, independent contractors, products-completed operations, broad form property damage, personal and advertising injury, cross liability assumed in a contract (including but not liability of another assumed in a contract). Limits may be provided through a combination of primary and umbrella/excess liability policies. The COL aggregate shall be endorsed to apply on a per-occurrence basis for construction contracts.
- D. Business Automobile Liability with a limit of not less than \$1,000,000 each accident. Such insurance shall cover liability arising out of any registered motor vehicle including owned, leased, hired and non-owned vehicles. If the Contractor does not own, rent or lease any registered vehicles and will not be using any vehicles on State Land proof of Business Automobile Liability Insurance shall not be required for this Contract. The Contractor shall assume full responsibility and liability that owners and operators of any registered vehicles entering State Land to conduct work under this contract carry the same Business Automobile Liability Insurance of the kinds and amounts listed above. NYS Department of Environmental Conservation reserves the right to request proof of the same.
- E. Environmental Liability with a limit of not less than \$1,000,000 providing primary coverage for bodily injury and property damage, including less of use of damaged property or of property that has not been physically injured. Such policy shall provide coverage for actual, alleged or threatened emission, discharge, dispersal, seepage, release or escape of pollutants, including any loss, cost or expense incurred as a result of any cleanup of pollutants or in the investigation, settlement or defense of any claim, suit, or proceedings against the Department of Environmental Conservation arising from the Contractor's Work.
- F. Professional Liability Insurance includes coverage for its negligent act, error or omission in rendering or failing to render professional services required by this contract arising out of specifications, installation, modification, abatement, replacement or approval of products, materials or processes containing pollutants, and the failure to advise or detect the existence or the proportions of pollutants. The Contractor, any subcontractor or supplier retained by the Contractor to work on the contract shall procure and maintain during and for a period of three (3) years after completion of this contract, Professional Liability Insurance in the amount of \$1,000,000. The professional liability insurance may be issued on a claims-made policy form, in which case the Contractor shall purchase at its sole expense, extended Discovery Clause coverage of up to three (3) years after work is completed if coverage is cancelled or not renewed.
- G. Marine Protection & Indemnity: Anytime the activity involves work on navigable water or the work is connected to water related activities, the Contractor shall procure Marine Protection & Indemnity and Hull and Machinery coverage, if available. Hull and Machinery coverage shall be provided for the total value of the watercraft or equipment. The Contractor shall obtain Protective and Indemnity Liability insurance for all marine operations under the contract, with a minimum \$2,000,000 limit.
- H. In addition, for Land Acquisition projects: the contractor will purchase a policy of title insurance in the amount equivalent to the purchase price of the land acquisition, issued by a Title Company licensed by the State of New York

insurance companies licensed to do business in the State of New York. Any delay or time lost as a result of the Contractor not having insurance required by the Contract shall not give rise to a delay claim or any other claim against the Department.

Upon execution of this Contract, the Contractor shall furnish to the Department a certificate or certificates, satisfactory to the Department, showing that it has complied with this Article. The insurance documentation shall provide that:

- Liability and protective liability insurance policies shall provide primary and non-contributory coverage to the NYS Department of Environmental Conservation for any claims arising from the Contractor's Work under this contract, or as a result of Contractor's activities.
- The State of New York NYS Department of Environmental Conservation, its officers, agents and employees, Division of Water, 625 Broadway 4th Floor, Albany, New York 12233-3500, shall be listed as Certificate Holder on all liability insurance certificate(s), as additional insured on endorsements(s) and on additional supporting documentation.
- The policies shall include a waiver of subrogation endorsement in favor of the Department as an additional insured. The endorsement shall be on ISO Form Number CG 24 04 or a similar form with same modification to the policy.
- Policies shall not be changed or canceled until thirty (30) days prior written notice has been given to the Department; as evidenced by an endorsement or declarations page.
- Insurance documentation shall disclose any deductible, self-insured retention, aggregate limit or any exclusion to the policy that materially changes the coverage required by the Contract.
- Endorsements in writing must be added to and made part of the insurance contract for the purpose of changing the original terms to reflect the revisions and additions as described. A copy of these endorsements must be provided to the Department within a reasonable amount of time.
- Applicable insurance policy number(s) reference on the ACORD form must be referenced in the supporting documentation requested by the Department and supplied by the insurance company (e.g. endorsement page, declarations page, etc.).
- This Contract shall be void and of no effect unless the Contractor procures the required insurance policies and maintains them until completion of the work or acceptance by the Department, whichever event is later.

The kinds and amounts of insurance required are as follows:

- A. Workers' Compensation coverage must be provided for work to be performed in New York State. The Contractor shall provide and maintain full New York State coverage during the life of this contract for the benefit of such employees as are required to be covered by the New York State Workers' Compensation Law.

Evidence of Workers' Compensation and Employers Liability coverage must be provided on one of the following forms specified by the Chairman of the New York State Workers' Compensation Board:

FORM #	FORM TITLE
C-105.2	Certificate of Workers' Compensation Insurance
U-26.3	State Insurance Fund Version of the C-105.2 form
SI-12/GSI-105.2	Certificate of Workers' Compensation Self-Insurance
CE-200	Certificate of Attestation of Exemption - (no employees)

- B. Disability Benefits coverage must be provided for work to be performed in New York State. The Contractor shall provide and maintain coverage during the life of the contract for the benefit of such employees as are required to be covered by the New York State Disability Benefits Law. Any waiver of this requirement must be approved by the Department of Environmental Conservation and will only be granted in unique or unusual circumstances.

Evidence of Disability Benefits coverage must be provided on one of the following forms specified by the Chairman of the New York State Workers' Compensation Board:

and in a form acceptable to the New York State Department of Environmental Conservation, naming the contractor as the insured party.

Should the Contractor engage a subcontractor, the Contractor shall impose the insurance requirements of this document on the subcontractor. Contractor shall determine the required insurance types and limits, commensurate with the work of the Subcontractor. The Contractor will maintain the certificate or certificates and endorsements for all subcontractors hired as part of the Contractor's records.

III. Requirements for all WQIP Round 15 project types

- 1. **Project Implementation.** The Contractor agrees to proceed expeditiously with the Project and shall complete the Project in accordance with the performance measures set forth in Attachment C (Work Plan) or any amendments to such Work Plan which are approved by the Department in writing and the Office of State Comptroller when applicable. The contractor shall also be in compliance and maintain compliance with all other obligations in any Orders on Consent with the Department, which relate to the Project.
- 2. **Project Meetings and Information.** The Contractor agrees that it shall permit the Department to participate in all its meetings and conferences with respect to the Project. Upon request from the Department, the Contractor must submit to the Department reports, documents, data, contractual documents, administrative records and other information pertinent to the Project.
- 3. **Project Access and Inspection.** The Contractor agrees to permit representatives of the Department to have unrestricted access to the Project at all reasonable times, and all contracts of the Contractor for construction or operation of all or a portion of the Project shall contain provisions that permit such access to the Project or work relating to the Project, wherever it is in preparation or progress, and that contractors or subcontractors shall provide proper facilities for such access and inspection and shall permit extracts and copies of Project records to be made by the representatives of the Department.
- 4. **Project Signage.** In addition to requirements in A.1.A.XVI (Environmental Protection Fund Acknowledgement), the Department may require the installation of a project sign which identifies the EPF / Ciena Water Infrastructure Act as a source of funding as outlined in the requirements and specifications attached to and made part of this contract as Attachment E.

For projects with multiple funding sources the Contractor acknowledges that a portion of this grant is funded by the Department as a Water Quality Improvement Project. The Contractor agrees to identify the Department as a source of funding for this project in any communications to the public. The Department may require the installation of a project sign which identifies it as a source of funding as outlined in the requirements and specifications attached to and made part of this contract as Attachment E.
- 5. **For Projects Involving Construction (in addition to Attachment A.1.A. Article XXII - Construction Plans)**
 - a. If requested by the Department, the Contractor agrees that it shall notify the Department in writing thirty (30) calendar days prior to the start of construction. If the start of construction began on or after May 1, 2018, upon approval of the Contract, the Contractor shall notify the Department in writing thirty (30) calendar days as in the status of any construction.
 - b. If requested by the Department, the Contractor agrees that it shall notify the Department in writing thirty (30) days following initial start-up operation of the Project.
 - c. The Contractor agrees that it shall cause the Project to be designed and constructed in accordance with the engineering report or facilities plan, and if applicable to the project, the plans and specifications for the Project shall be stamped with the seal of a licensed professional engineer and shall be signed with the personal signature of such engineer in compliance with Education Law §7209(1) and (2), and which have been delivered to and approved by the Department, as well as any amendments thereto.
- 6. **Project Completion.** Within sixty (60) calendar days after the end of the Contract Term, or upon final completion of the Project, the Contractor agrees that it will deliver the following to the Department:

- a. A certification stating that the Project has been completed in accordance with this Contract and, as applicable, constructed per the approved plans and specifications, and any approved amendments thereto.
 - b. As applicable, the certified "as built" plans and specifications for the Project. Any work not in accordance with the approved plans and specifications shall be remedied, unless such non-compliance is agreed to be waived by the Department.
 - c. As applicable, the Contractor shall retain all as-built plans and specifications for the Project for the useful life of the Project.
7. **Period of Eligible Costs.** Only those eligible project related costs incurred on or after May 1, 2018 will be eligible for reimbursement of grant funding.
8. **Project Match/Local Share Funds.** Only activities considered eligible for WQIP funding are eligible to be used as match funds. Match funds considered eligible for WQIP funding must be incurred within the start and end date of the contract. Match funds consist of cash contributions and in-kind services put forth by the applicant to complete the awarded project. State or federal grant dollars cannot be used for the match funds.

IV. Additional Requirements for WQIP Round 15 Wastewater Treatment projects

1. **Eligible Costs.** Eligible grant and match costs include
 - a. Personal Services (salary and fringe benefits)
 - b. Contractual
 - c. Equipment
 - d. Construction inspection incurred by the Contractor to implement the construction phase of the project such as general, electrical, plumbing, HVAC and mechanical.
2. **Ineligible Costs.** The following costs are NOT eligible for match or grant reimbursement:
 - a. Engineering design and specs
 - b. Design
 - c. Construction oversight
 - d. Non-construction costs incurred during the construction phase of the project.
 - e. Indirect costs (e.g. travel, space/property rent, utilities, and other office supplies)
 - f. Administrative
 - g. Legal
3. **25% Match/Local Share.** The Contractor must provide an eligible share of least twenty-five percent (25%) of approved project costs of up to the Contract Funding Amount identified on the face page. This percentage will be specified in the Attachment B-1 (Expenditure Budget). The Contractor share cannot be paid with state or federal grant funds.
4. **Land Owner Agreements.** The Contractor must own the property, or obtain an applicable access agreement, for the proposed project site.
 - a. If the property owner is a municipality – A resolution by the municipality supporting the project.
 - b. If the property is not owned by the Contractor – a formal written agreement between the Contractor and landowner which allows the Contractor access to the property, and represent the landowner, to accomplish the proposed project.
5. **30-year Useful Life.** The Contractor agrees that it is fully responsible for ensuring the proper and efficient monitoring, operation and maintenance of the Project satisfactory to the Department, including, but not limited, to retaining a sufficient number of qualified staff and ensuring performance of required tests and requirements. After completion of the Project, the Contractor shall, for a period of thirty (30) years unless another period of time is specified in the attached Work Plan (the useful life of the Project as provided in the State Finance Law §61), operate the Project or otherwise cause the Project to be operated properly in a sound and economical manner and shall maintain, preserve and keep the Project, or cause the Project to be maintained, preserved and kept, in good repair, working order and condition and shall make, or cause to be made, all necessary and proper repairs, replacements and renewals from time to time, so that at all times the Project may be operated properly in a manner consistent with the Project performance standards contained in the engineering report or facilities plan for the Project. This requirement and any associated responsibilities shall survive the term of this contract.

replacements and renewals from time to time, so that at all times the Project may be operated properly in a manner consistent with the Project performance standards contained in the engineering report or facilities plan for the Project, with this Contract and with the requirements of any related permit or other governmental approval of the Project. This requirement and any associated responsibilities shall survive the term of this contract.

6. **Project Imagery.** If requested, upon completion of the Wastewater Treatment project, contractor shall provide the Department with a high resolution image (minimum 300 dots per inch) of the completed project and grant to the Department the right to make an unlimited number of copies and publish the image in Department publications without charge or restriction.

V. Additional Requirements for WQIP Round 15 Salt Storage projects.

1. **New York State Office of General Services Design and Construction Specifications.** The Contractor agrees to use NYS Office of General Services design and construction specifications for salt storage construction projects. <https://online.nys.gov/DNC/MasterSpecs/AM/insur/obj/CListing.asp?ID=113>
 - a. Section 133423 - Rectangular Salt Storage Structure, Parts 1.05 and 1.06
 - b. Section 133424 – Dome Salt Storage Structure, Parts 1.05 and 1.06
2. **Eligible Costs.** Eligible grant and match costs include
 - a. personal services (salary and fringe benefits)
 - b. non-personal services (e.g. contractual services, travel, equipment operating expenses, etc.) incurred by the Contractor to implement the project. The following categories of costs are considered eligible:
 - i. Construction
 - ii. Construction inspection
 - iii. Planning and Design to implement the project (cannot exceed 20% of award amount)
 - iv. Land purchases
3. **Ineligible Costs.** The following costs are NOT eligible for match or grant reimbursement:
 - a. Construction oversight
 - b. Indirect (e.g. space/property rent, utilities, and other office supplies)
 - c. Administrative
 - d. Legal
 - e. Costs associated with grant application and/or its administration and securing applicable approvals, permits, easements, etc.
4. **50% Match/Local Share.** The Contractor must provide an eligible share of least fifty percent (50%) of approved project costs of up to the Contract Funding Amount identified on the face page. This percentage will be specified in the Attachment B-1 (Expenditure Budget). The Contractor share cannot be paid with state or federal grant funds.
5. **Land Owner Agreements.** The Contractor must own the property, or obtain an applicable access agreement, for the proposed project site.
 - a. If the property owner is a municipality – A resolution by the municipality supporting the project.
 - b. If the property is not owned by the Contractor – a formal written agreement between the Contractor and landowner which allows the Contractor access to the property, and represent the landowner, to accomplish the proposed project.
6. **30-year Useful Life.** The Contractor agrees that it is fully responsible for ensuring the proper and efficient monitoring, operation and maintenance of the Project satisfactory to the Department, including, but not limited, to retaining a sufficient number of qualified staff and ensuring performance of required tests and requirements. After completion of the Project, the Contractor shall, for a period of thirty (30) years unless another period of time is specified in the attached Work Plan (the useful life of the Project as provided in the State Finance Law §61), operate the Project or otherwise cause the Project to be operated properly in a sound and economical manner and shall maintain, preserve and keep the Project, or cause the Project to be maintained, preserved and kept, in good repair, working order and condition and shall make, or cause to be made, all necessary and proper repairs, replacements and renewals from time to time, so that at all times the Project may be operated properly in a manner consistent with the Project performance standards contained in the engineering report or facilities plan for the Project, with this Contract and with the requirements of any related permit or other governmental approval of the Project. This requirement and any associated responsibilities shall survive the term of this contract.

VI. Additional Requirements for WQIP Round 15 Non-Agricultural Nonpoint Source Abatement and Control projects

1. **Eligible Costs.** Eligible grant and match costs include
 - a. personal services (e.g. salary, fringe)
 - b. non-personal services (e.g. contractual services, travel, equipment operating expenses, etc.) incurred by the awardee to implement the project. The following categories of costs are considered eligible:
 - i. Construction
 - ii. Construction inspection
 - iii. Planning and Design to implement the project (cannot exceed 20% of award amount)
2. **Ineligible Costs.** The following costs are NOT eligible for match or grant reimbursement:
 - a. Construction oversight
 - b. Land purchases
 - c. Indirect (e.g. space/property rent, utilities, and other office supplies)
 - d. Administrative
 - e. Legal
 - f. Costs associated with grant application and/or its administration and securing applicable approvals, permits, easements, etc.
3. **25% Match/Local Share.** The Contractor must provide an eligible share of least twenty-five percent (25%) of approved project costs of up to the Contract Funding Amount identified on the face page. This percentage will be specified in the Attachment B-1 (Expenditure Budget). The Contractor share cannot be paid with state or federal grant funds.
4. **Land Owner Agreements.** The Contractor must own the property, or obtain an applicable access agreement, for the proposed project site.
 - a. If the property owner is a municipality – A resolution by the municipality supporting the project.
 - b. If the property is not owned by the Contractor – a formal written agreement between the Contractor and landowner which allows the Contractor access to the property, and represent the landowner, to accomplish the proposed project.
5. **20 Year Useful Life (nonpoint source projects, except hydro-seeding which is 5 years)**
SFL §61 provides useful life expectancies for things such as culverts and environmental restoration projects. Here the Contractor agrees that it is fully responsible for ensuring the proper and efficient monitoring, operation and maintenance of the Project satisfactory to the Department. After completion of the Project, the Contractor shall, for a period of twenty (20) years unless another period of time is specified in the attached Work Plan (the useful life of the Project as provided in the State Finance Law §61), operate the Project or otherwise cause the Project to be operated properly in a sound and economical manner and shall maintain, preserve and keep the Project, or cause the Project to be maintained, preserved and kept, in good repair, working order and condition and shall make, or cause to be made, all necessary and proper repairs, replacements and renewals from time to time, so that at all times the Project may be operated properly in a manner consistent with the Project performance standards contained in the engineering report or facilities plan for the Project, with this Contract and with the requirements of any related permit or other governmental approval of the Project. This requirement and any associated responsibilities shall survive the term of this contract.
6. **Project Imagery.** If requested, upon completion of the Nonpoint Source project, contractor shall provide the Department with a high resolution image (minimum 300 dots per inch) of the completed project and grant to the Department the right to make an unlimited number of copies and publish the image in Department publications without charge or restriction.

VII. Additional Requirements for WQIP Round 15 Municipal Separate Storm Sewer System projects

1. **Lead Applicant Certification.** For Municipal Separate Storm Sewer System (MS4) projects that involve more than one municipality, the lead applicant (Contractor) must certify that an Inter-Municipal Agreement or a signed commitment exists between the Lead Applicant (Contractor) and each participating MS4 stating the participating MS4's commitment and willingness to deliver each output attributed to them in the contract work plan as described in Attachment F.
2. **Eligible Costs.** Eligible grant and match costs include the following to develop and implement a stormwater management program that, at a minimum, complies with GP-0-15-003, or any permit which supersedes or replaces GP-0-15-003:
 - a. Salary
 - b. Fringe Benefits
 - c. Contractual
 - d. Travel
 - e. Equipment (only one vacuum truck is permissible)
 - f. Construction Inspection
3. **Ineligible Costs.** The following costs are NOT eligible for match or grant reimbursement:
 - a. Purchase of equipment already owned and available through the cooperative stormwater group
 - b. Development of materials already available through the cooperative stormwater group
 - c. Indirect (e.g. space/property rent, utilities, and other office supplies)
 - d. Administrative
 - e. Legal
4. **25% Match/Local Share.** The Contractor must provide an eligible share of least twenty-five percent (25%) of approved project costs of up to the Contract Funding Amount identified on the face page. This percentage will be specified in the Attachment B-1 (Expenditure Budget). The Contractor share cannot be paid with state or federal grant funds.
5. **5 Year Useful Life**
SFL §61 provides useful life expectancies for things such as culverts and environmental restoration projects. Here the Contractor agrees that it is fully responsible for ensuring the proper and efficient monitoring, operation and maintenance of the Project satisfactory to the Department. After completion of the Project, the Contractor shall, for a period of five (5) years unless another period of time is specified in the attached Work Plan (the useful life of the Project as provided in the State Finance Law §61), operate the Project or otherwise cause the Project to be operated properly in a sound and economical manner and shall maintain, preserve and keep the Project, or cause the Project to be maintained, preserved and kept, in good repair, working order and condition and shall make, or cause to be made, all necessary and proper repairs, replacements and renewals from time to time, so that at all times the Project may be operated properly in a manner consistent with the Project performance standards contained in the engineering report or facilities plan for the Project, with this Contract and with the requirements of any related permit or other governmental approval of the Project. This requirement and any associated responsibilities shall survive the term of this contract.

VIII. Additional Requirements for WQIP Round 15 Aquatic Habitat Restoration projects

1. **Eligible Costs.** Eligible grant and match costs include salary, fringe, contractual costs, travel and equipment incurred by the Contractor in the following categories:
 - a. Planning and design to implement the project (cannot exceed 20% of award amount)
 - b. Construction inspection
 - c. Maintenance
 - d. Reconstruction
 - e. Revitalization
 - f. Rejuvenation activities
2. **Ineligible Costs.** The following costs are NOT eligible for match or grant reimbursement:
 - a. Projects with planning and design in excess of 20% of the award amount
 - b. Monitoring in excess of 20% of grant amount

- e. Construction oversight
- d. Indirect (e.g. space/property rent, utilities, and other office supplies)
- c. Administrative
- f. Legal

3. **25% Match/Local Share.** The Contractor must provide an eligible share of least twenty-five percent (25%) of approved project costs of up to the Contract Funding Amount (identified on the face page. This percentage will be specified in the Attachment B-1 (Expenditure Budget). The Contractor share cannot be paid with state or federal grant funds.

4. **Land Owner Agreements.** The Contractor must own the property, or obtain an applicable access agreement, for the proposed project site.

- c. If the property owner is a municipality – A resolution by the municipality supporting the project.
- d. If the property is not owned by the Contractor – a formal written agreement between the Contractor and landowner which allows the Contractor access to the property, and represent the landowner, to accomplish the proposed project.
- e. If the Contractor is a not-for-profit implementing a project on municipal property - a signed Municipal Endorsement. A municipal endorsement provides authorization for the not-for-profit to conduct the proposed project on municipal property

5. **30-year Useful Life.** The Contractor agrees that it is fully responsible for ensuring the proper and efficient monitoring, operation and maintenance of the Project satisfactory to the Department, including, but not limited, to retaining a sufficient number of qualified staff and ensuring performance of required tests and requirements. After completion of the Project, the Contractor shall, for a period of thirty (30) years unless another period of time is specified in the attached Work Plan (the useful life of the Project as provided in the State Finance Law §611), operate the Project or otherwise cause the Project to be operated properly in a sound and economical manner and shall maintain, preserve and keep the Project, or cause the Project to be maintained, preserved and kept, in good repair, working order and condition and shall make, or cause to be made, all necessary and proper repairs, replacements and renewals from time to time, so that at all times the Project may be operated properly in a manner consistent with the Project performance standards contained in the engineering report or facilities plan for the Project, with this Contract and with the requirements of any related permit or other governmental approval of the Project. This requirement and any associated responsibilities shall survive the term of this contract.

6. **Project Imagery.** If requested, upon completion of the Aquatic Habitat Restoration project, contractor shall provide the Department with a high resolution image (minimum 300 dots per inch) of the completed project and grant to the Department the right to make an unlimited number of copies and publish the image in Department publications without charge or restriction.

IX. Land Acquisition Projects for source water protection pursuant to Title 33 of Article 15 of the Environmental Conservation Law.

A. "Land acquisition projects" mean open space acquisition projects undertaken with willing sellers including, but not limited to, the purchase of conservation easements, undertaken by a municipality, a not-for-profit corporation, or purchase of conservation easements by a soil and water conservation district.

B. All land acquisition projects, concerning real property, shall be undertaken in the state of New York and subject to New York State laws.

C. The commissioner is authorized to provide state assistance to municipalities, not-for-profit corporations and soil and water conservation districts to undertake land acquisition projects for source water protection, in cooperation with willing sellers. Land acquisition projects for source water protection shall support, expand or enhance drinking water quality protection, including but not limited to aquifers, watersheds, reservoirs, lakes, rivers and streams.

D. 1. Any buffer encumbered by a conservation easement acquired pursuant to ECL §15-3303 that encumbers lands used in agricultural production as defined in section three hundred one of the agriculture and markets law in a county designated state certified agricultural district created under section three hundred three of the agriculture and markets

law may allow agricultural activity that qualifies such lands, provided such activity on such lands does not impair drinking water and complies with an agricultural environmental management program plan developed by the state soil and water conservation committee, in partnership with the department.

2. Notwithstanding any limitations provided herein on lands acquired pursuant to ECL Article 15 Title 33 a license or easement may be granted by the owner of such property to a public utility for a public purpose.

E. 1. No state assistance may be provided pursuant to ECL §15-3303 to fund any land acquisition project which is undertaken by eminent domain unless such process is undertaken with a willing seller.

2. The department shall not provide funding pursuant to ECL §15-3303 for any land acquisition project for source water protection by a not-for-profit corporation, if any town, village or city within which such a project is located, by resolution, within ninety days of notification by such corporation of its interest in acquiring such projects, objects to such acquisition.

- 1. A not-for-profit contractor shall notify any town, village or city within which such a project is located of its interest in acquiring such project and inform them they have 90 days to object by resolution.
- 2. A not-for-profit contractor shall provide the Department with copies of such notifications and all responses received from any town, village or city, or certify to the Department that no responses were received within 90 days.

F. Real property acquired, developed, improved, restored or rehabilitated by or through a municipality or not-for-profit corporation with funds made available pursuant to ECL Article 15 Title 33 shall not be sold, leased, exchanged, donated or otherwise disposed of or used for other than the public purposes of ECL Article 15 Title 33 without the express authority of an act of the legislature, which shall provide for the substitution of other lands of equal environmental value and fair market value and reasonably equivalent usefulness and location to those to be discontinued, sold or disposed of, and such other requirements as shall be approved by the commissioner.

G. If the state acquires a real property interest in land purchased by a municipality or not-for-profit with funds made available pursuant to ECL Article 15 Title 33, the state shall pay the fair market value of such interest less the amount of funding provided by the state pursuant to ECL §15-3303.

H. Contractor agrees to provide the Department with a shape file in the projection UTM Zone 18N, NAD 83, Meters suitable for locating acquired parcels on a geographical information system platform.

I. In Perpetuity Useful Life. The Contractor agrees that it is fully responsible for ensuring the proper and efficient monitoring, operation and maintenance of the Project satisfactory to the Department in perpetuity. This requirement and any associated responsibilities shall survive the term of this contract.

J. Land Purchase and Conservation Easement Requirements

The Department will thoroughly review all documentation and only reimburse for land purchases and conservation easements that provide for the protection of source water as set forth in Title 33 of Article 15 of the Environmental Conservation Law (ECL). The following are conditions of land acquisitions:

- 1. Easement document must include all necessary requirements to fulfill the objective of ECL Article 15, Title 33.
- 2. Lands currently protected by a federal or state easement program are not eligible for funding under this grant.
- 3. Conservation easements must be acquired in perpetuity.
- 4. Conservation easements must be acquired pursuant to Article 49, Title 3 of the New York State Environmental Conservation Law.
- 5. If the property is used for activities which interfere with the accomplishment of approved purposes, the violating activities must cease and any resulting adverse effects must be remedied.
- 6. Contractor must describe in detail protocols for stewardship, monitoring and enforcement of properties or easements as part of their work plan.
- 7. Monitoring and enforcement of properties or easements obtained with funding from this contract may be performed by a subcontractor. The subcontractor's role and responsibilities must be outlined in this contract's work plan.

8. Public access will be reviewed and approved by DEC on a case-by-case basis. The contractor must provide written documentation that public access would not have an impact to the drinking water supply. In the case of a municipality, this documentation is to be provided at the earliest date practicable but not later than 120 days prior to closing. In the case of a Not-For-Profit or Soil and Water Conservation District, documentation shall be provided concurrently with notification of the municipality of its interest in acquiring such projects.

i. Documentation must contain a thorough description and maps showing access points, proposed activities, and proximity to the water supply

9. Contractor agrees to provide a summary of existing property conditions prior to acquisition signed by both seller and Contractor in the form of a baseline documentation report. The baseline documentation for any conservation easement must be finalized and signed by both seller and Contractor prior to recording of the conservation easement document

10. Appraisals are required prior to reimbursement. Appraisals must be completed by a state general certified appraiser following the Uniform Standards of Professional Appraisal Practice (USPAP). Contractor agrees to submit non-restricted appraisal reports according to DEC Appraisal standards (available upon request). Two appraisals are required when appraised value is over \$300,000.

11. Boundary surveys and maps are required for all properties and shall identify the protected property and any exclusion areas that are not protected. Surveys must be completed by a professional land surveyor licensed to practice in New York, must include the DEC Grant ID number in the title block and must be recorded in the County Clerk's office prior to the recording of a conservation easement in the County Clerk's office.

12. Review and final approval from the Department for items 1-11 above is required prior to closing or, in the event that the closing has already taken place, immediately following execution of this contract. DEC will have a minimum of 120 days to review and approve or disapprove the parcel(s) being proposed.

13. Appraisals, surveys, titles and easement language (if applicable) will be reviewed by DEC. No reimbursement will be made until the final approval is given by the Department.

14. All recorded deeds or conservation easements must contain a "Notice of Grant Agreement", which shall be reviewed and approved by DEC prior to recording.

15. PDF's of the final recorded deeds, recorded conservation easements, baseline documents with signature pages, and signed and stamped survey maps will be provided to DEC prior to reimbursement

K. Riparian Buffer Requirements (Surface Water Supplies only)

- 1. Riparian buffers must be vegetated using only native trees, shrubs and grasses appropriate for site conditions.
- 2. Riparian buffers must have a minimum average width of 100 feet, measured from the edge of the streambank, if they are adjacent to tributaries.
- 3. Riparian buffers must have a minimum average width of 300 feet, measured from the edge of the shoreline, if they are adjacent to reservoirs, lakes or ponds.
- 4. For newly created or restored buffers, the contractor must develop and implement a maintenance plan during the buffer establishment period, defined as 3-5 years after planting of vegetation.
- 5. Streambanks must be stable prior to creation or restoration of riparian buffers.
- 6. Selective cutting of trees, removal of invasive species, or supplemental planting of trees, shrubs, or grasses are allowed provided they improve habitat and function of the riparian buffer or remove, mitigate, or avert any unreasonable harm to people, property or health of native species on or around the defined riparian buffer area.
- 7. Disturbances that compromise the ecological condition of the riparian buffer area, including, but not limited to, livestock access to the riparian buffer, wood or timber harvesting, excessive mowing and recreational vehicular use must be prohibited, except as allowed by Article XI 1-D above.
- 8. Field drains through the riparian buffer shall not be allowed. Existing field drains shall be terminated prior to entering the riparian buffer in a manner which will allow infiltration of field drain discharge.

L. Wetland Requirements (Surface Water Supplies only)

- 1. Project work plan must describe how the work in and near wetlands will protect drinking water supplies and provide improved wetland function.
- 2. Work within or immediately adjacent to existing wetlands must be limited to activities that will improve wetland function. Disturbances that compromise ecological functions are ineligible for funding.
- 3. Projects cannot mitigate for impacts to regulated wetlands. Wetland mitigation projects are ineligible for funding.
- 4. The Contractor must develop and implement a maintenance plan for any wetland creation or enhancement. The maintenance plan must include protocols for addressing problems for a minimum of 3 years following creation or enhancement.

M. Eligible expenses include administrative and transactional costs (e.g. property surveys, land appraisals, staff time devoted to the project) and the value of the land or development rights to be acquired by the grantee.

- 1. The value of the land or development rights being acquired, provided such value associated with the purchase of the property or purchase of a conservation easement is no greater than the value from an appraisal deemed acceptable by DEC. DEC has the discretion and may on rare occasion reimburse at a price above the highest approved independent appraisal provided: 1) the price was the result of documented negotiations between the Contractor and the seller and 2) the Contractor demonstrated the unique resource value and how it accomplishes the objective of this program.
- 2. Transactional costs acceptable by DEC, provided they result in final acquisition of land or perpetual conservation easement and/or restoration of new riparian buffers and are limited to: title reports, title insurance, property surveys, appraisals, certified appraisal review, easement holder and landowner's legal fees to negotiate/close the conservation easement transaction and to review title reports and, as necessary, prepare title curatives, filing fees, or other Department-approved closing costs, map and GIS/remote sensing data, environmental assessments, baseline documentation reports, stewardship or management plans, easement stewardship fee, project specific defense liability insurance fees, property taxes, and State or local real estate transfer taxes.
- 3. Staff salaries directly devoted to or connected to the program, excluding indirect (overhead/operating) expenses (Grantees will be required to document time works, tasks, pay rates and payment, and itemize salaries according to job title and roles/responsibilities on the program). Staff salary costs may not exceed 10% of the award amount for projects or 30% of the award amount for programs.
- 4. Riparian buffer or wetland restoration costs deemed acceptable by DEC, "Soft" streambank stabilization practices including but not limited to, live staking, contour wadding, erosion control matting, and root wads, are eligible for funding as part of riparian buffer restoration. Streambank stabilization costs cannot exceed 25% of the award amount.
- 5. Value of contractual services provided by professional and technical personnel and consultants (i.e. engineering and architectural services, surveys, plans and specifications, research, design and development of a project, consultant and legal services directly related to a project, feasibility study for a property, etc.). Planning and design costs cannot exceed 20% of the award amount.
- 6. Supplies and materials directly necessary to implement individual projects.
- 7. Travel Costs (within New York State) directly associated and required to implement the program.

N. Ineligible costs:

- 1. Out-of-state travel costs, and any travel not directly required to implement the program;
- 2. Program costs funded from other state and/or federal funding sources;
- 3. Indirect costs, including overhead/operating expenses (space, rent, utilities);
- 4. Costs incurred prior to a grant award or outside of the contract term;
- 5. Endowment funds;
- 6. Major capital expenditures, such as equipment or enclosures;
- 7. Any fee or other contribution deposited to a legal defense fund other than a conservation easement defense liability insurance policy;
- 8. Restoration projects that include hard armoring of streambanks, including stone rip rap;
- 9. Wetland mitigation projects;
- 10. Projects with planning and design in excess of 20% of the award amount;
- 11. Construction oversight;
- 12. Improvements to public access;
- 13. Interest payments; and
- 14. Forest management plans.

Attachment E – Signage

Communications with the Public

The Department will require that grant recipients acknowledge in any communication to the public that funding was provided from the CWIA/EPF Water Quality Improvement Project Grant and include the following:

- Source of Funding: CWIA/EPF Water Quality Improvement Project Grant administered by the New York State Department of Environmental Conservation (NYSDEC)
- Project Name and Project Sponsor

Signage Requirements

The Department will require project signs for projects meeting the following criteria:

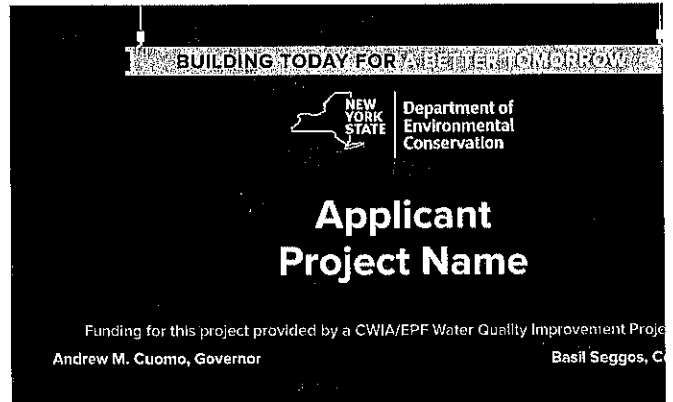
- Wastewater Treatment Improvement projects
- Salt Storage Facilities projects
- Land Acquisition for Source Water Protection projects
- Nonpoint Source Abatement and Control and Aquatic Habitat Restoration grant awards totaling more than \$50,000.

All signs should be constructed in accordance with the specifications identified herein.

The Department may, in its discretion, waive this requirement if the sign cannot be reasonably maintained, the sign is not consistent with other laws, or the location of the sign would not provide a public purpose.

The project sign should be maintained from the start of construction until one year after closeout of the project.

The cost of the project sign is a reimbursable project cost and should be included in the materials category for the project budget.



Contract Number: #_DEC01 COX_____
Page 2 of 3 Attachment E WQIP Signage Requirements December 2017

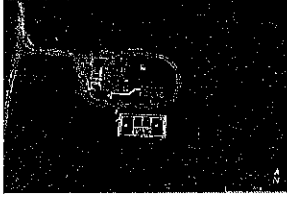
Contract Number: #_DEC01 COX_____
Page 1 of 3 Attachment E WQIP Signage Requirements December 2017

Sign Specifications

- Size: Horizontal format 48" wide by 24" tall.
- Construction Materials: Aluminum blank sign boards with vinyl sheeting.
- Inserts: "Applicant" and "Project Name" indicate position, size and typography for specific project applicant and project names to be inserted.
- Color Scheme:
 - Background – PMS288C
 - "BUILDING TODAY FOR A BETTER TOMORROW" graphic:
 - Rectangular beam – PMS130C
 - Hooks – White
 - Text "BUILDING TODAY FOR" – PMS288C
 - Text "A BETTER TOMORROW" – White
 - NYS/DEC logo – White
 - "Funding for this project provided by a CWIA/EPF Water Quality Improvement Project Grant" graphic – PMS130C
 - "Andrew M. Cuomo, Governor" and "Basil Seggos, Commissioner" graphics – White
 - TEXT: Project Applicant and Project Name – White
- Type Specifications:
 - All type is Proxima Nova Bold, 180pt.
 - Format is: center each line of copy with title case capitalization.
- Production Notes: 48" wide x 24" tall aluminum blanks will be covered with vinyl sheeting for application of artwork. Artwork will be silk screened on this surface.
- Provided artwork has been sized to 49" x 25" to provide 0.5" bleed area to all edges for print production.
- Time Period: From start of Construction until 1 year after closeout of the project.
- Grant recipients must provide a project name and the local project sponsor to be inserted on the sign.

Contract Number: #_DEC01 COX_____
Page 3 of 3 Attachment E WQIP Signage Requirements December 2017

PROJECT SPECIFICATIONS
VOLUME 2 – TECHNICAL SPECIFICATIONS



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TOWN OF DUANESBURG, NY

MARIAVILLE WWTP
UV DISINFECTION PROJECT

Contract Numbers:

TD1-G-21 – General

January 18, 2022

SUPERVISOR: Bill Wenzel

Board of Trustees:

John Ganther
Andrew Lucks

Dianne Grant
Rick Potter

Prepared by:
DELAWARE ENGINEERING, D.P.C.
55 South Main Street
Oraonta, New York 13820
Phone: (607) 432-8073



Set #

TOWN OF DUANESBURG, NY
MARIAVILLE WWTP UV DISINFECTION
CONTRACT No. TD1-G-21 GENERAL

TOWN OF DUANESBURG, NY
MARIAVILLE WWTP UV DISINFECTION
CONTRACT No. TD1-G-21 GENERAL

ITEM 0.00
INTRODUCTION TO THE TECHNICAL SPECIFICATIONS

The following Technical Specifications shall apply to the various items of work which constitute the construction contemplated under this Contract except as supplemented and/or amended by the Supplemental Technical Specifications. In cases of conflict between the Technical Specifications and the Supplemental Technical Specifications, the provisions of the Supplemental Technical Specifications shall apply.

~~To avoid excessive overlapping and repetition, there are certain sections, materials and items that are referred to in other items. In these cases, it is understood that the words such as culvert and sewer, sanitary and storm, utility and sewer, manhole and catch basin, structure and culvert, gravel and granular fill or material, select and selected, bituminous and asphalt, etc., are interchangeable. In cases where references are not given and the need arises for a specification, similar sections or related items shall govern.~~

Further, it is provided that whenever anything is, or is to be done if, as, or, when, or where "contemplated, required, determined, directed, specified, authorized, ordered, given, designated, indicated, considered necessary, deemed necessary, permitted, reserved, suspended, established, approval, approved, disapproved, acceptable, unacceptable, suitable, accepted, satisfactory, unsatisfactory, sufficient, insufficient, rejected or condemned", it shall be understood as if the expression were followed by the words "by the Engineer" or "to the Engineer".

Within the Technical and/or Supplemental Technical Specifications of this Contract the following definitions shall apply:

1. Standard Specifications shall mean the New York State, Department of Transportation, Design and Construction Division, "Standard Specifications Construction and Materials" of January 2, 1985. Only those portions of the Standard Specifications that are referred to in the "MATERIALS" and/or "CONSTRUCTION METHODS" sections of this Contract's Technical and/or Supplemental Technical Specifications, not supplemented and/or amended therein, shall apply. Within the referred to portions of the Standard Specification the following terms are used, they shall mean respectively:

State	Owner
Department	Engineering
Division	
Commissioner	
Executive Commissioner	
Regional Director	
Chief Engineer	
Deputy Chief Engineer	
for Construction (D.C.E.C)	
Deputy Chief Engineer for	

Facilities Design (D.C.E.D.)	
Deputy Chief Engineer	
for Structures Design & Construction (D.C.E.S.)	Engineer or the person or organization engaged to perform engineering services for the Owner
Engineer	
Engineer-in-Charge (EIC)	
Departmental Soils	
Engineer	
Departmental Engineering	
Geologist	
Director, Engineering	
Materials	
Inspector	Resident Engineer
Laboratory	Designated by the Engineer, Local Public Agency or Owner
Materials Bureau	
Special Provisions	Supplemental Technical Specifications
Standard Structure Sheet	Details shown on the Contract Drawings
Standard Sheet	

2. Applicable Safety Code: shall mean the latest edition including any and all amendments, revisions and additions thereto of the Federal Department of Labor, Occupational Safety and Health Administration's "Occupational Safety and Health Standards" and "Safety and Health Regulations for Construction", the State of New York Department of Labor, Board of Standards and Appeals, Industrial Code Rule 23, "Protection of Persons employed in Construction and Demolition Work", or State of New York "State Building Construction Code", whichever is the most stringent for the applicable requirement.

3. Items: Reference within the text of these Specifications to Items without a number but title only are Technical Specification items within this Contract.

4. Local Regulatory Agency(ies): Local Regulatory Agency (ies) shall be defined as the governing body or authority having jurisdiction over or responsibility for a particular activity within the scope of this Contract. They may be as specifically defined within the Special Conditions; otherwise, the Contractor shall be responsible to determine same in the local area of the Contract.

5. "These Specification" where used in the text of the Technical Specifications items shall mean the Technical Specifications of this Contract.

6. Bid Proposal Items: Payment will only be made for items in the Bid Proposal. Other items may be included in the Specifications but payment for items not listed in the Bid Proposal will be included

in the cost of other items of work. Bid Proposal items shall have the same basic alphanumeric designation as the same item in the Specifications with significant suffixes added as required.

7. Outside Pipe Diameter: Within the Specifications or where shown on the Contract Drawings, the outside diameter of pipe is defined as the outside diameter of the pipe barrel.

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SECTION 01300 - SUBMITTALS

PART 1. GENERAL

1.01 SECTION INCLUDES

- A. Submittal procedures
- B. Construction progress schedules
- C. Proposed product list
- D. Shop Drawings
- E. Samples
- F. Manufacturer's instructions
- G. Manufacturer's certificates
- H. Construction photographs

1.02 RELATED SECTIONS

- A. GENERAL CONDITIONS
- B. All Sections specifying materials

1.03 SUBMITTAL PROCEDURES

- A. Transmit each submittal with a cover sheet with transmittal form.
- B. Sequentially number each transmittal form. Resubmittals shall reference original number with an alphabetic extension. Example: Shop drawing 101. The resubmittal would be labeled Shop Drawing 101A.
- C. Each transmittal form shall include the following:
 - 1. Project Name
 - 2. Project number
 - 3. Contract number
 - 4. Contractor's name
 - 5. Subcontractor's name
 - 6. Supplier's name
 - 7. Applicable specification section(s)
 - 8. Applicable Contract Drawing sheet number(s) and Detail name(s)
 - 9. Deviations; if none state or list all deviations
 - 10. Space requirements - list all deviations or indicate differences from design
- D. Apply the CONTRACTOR'S stamp certifying that the review, verification of products, field dimensions, and coordination of information is in accordance with the Contract Documents. The CONTRACTOR shall sign and certify each submittal and state that the Contractor has reviewed and verified all requirements of the Contract Documents and that the proposed material meets all requirements set forth in the Contract Documents.
- E. Schedule Submittals to expedite the project and deliver to the Engineer at the indicated business address.
- F. Identify any deviations from the Contract Documents and Product or system limitations which may be detrimental to the successful completion of the indicated work. Identify space requirements which differ from those designed, shown or indicated in the Contract Documents.

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- G. Provide space for the Engineer's stamp.
- H. Revise and resubmit submittals as required, identify all changes made since previous submittals.
- I. Submittals or information not requested will not be reviewed or recognized. All materials will be returned to the CONTRACTOR unreviewed.

1.04 PROPOSED PRODUCTS LIST

- A. Within 10 days after the Notice to Proceed, submit a complete list of major products proposed for use, with the name of manufacturer, trade name, and model number of each product and appropriate Specification Section number.

- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and referenced standard.

1.05 SHOP DRAWINGS

- A. Submit six (6) copies to the Engineer. Three copies will be retained by the Engineer.
- B. After review by the Engineer, distribute copies in accordance with procedure described and for Record Documents described.

1.06 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit the printed manufacturer's instructions for delivery, storage, assembly, installation, adjusting, and finishing, in quantities specified for product data.
- B. When specified in individual specification sections, submit manufacturer's operation and maintenance instructions for equipment supplied for this project. Manuals shall be delivered prior to 75 percent completion of the project, and shall be prepared in accordance with Technical Specification Section 16000.

1.07 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification sections, submit manufacturer's certificate to Engineer for review, in quantities specified for Product Data.
- B. Indicate that material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product, but must be approved by the Engineer.
- D. When specified in individual specification sections, submit manufacturer's performance affidavits for equipment to be furnished for this project. Affidavits shall be of the format and content prescribed and shall be included with the specification section shop drawing.

PART 2. PRODUCTS
Not used.

PART 3. EXECUTION

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Not used.

PART 4. PAYMENT

Payment for this Section shall be included in all Work Items which require submittals.

END OF SECTION

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**SECTION 01305
CONSTRUCTION SEQUENCING**

PART 1 GENERAL

1.0 SEQUENCE

A. The proposed construction sequence shall be as follows:

1. The Contractor shall provide a construction schedule to the engineer prior to starting any work on this project.
2. The Contractor shall attend a pre-construction meeting with the Owner and Engineer to discuss the project schedule and critical items. Monthly progress meetings will be held with Owner, contractors, regulatory agencies, and engineer during construction. Contractors shall attend meetings, prepare updated schedules and respond to project issues.
3. Contractor shall Notify One Call Center/8-1-1/ Dig Safe New York and overhead utility companies and shall perform clearance of, protect, repair, support and relocate overhead and underground utilities as required.
4. Contractor shall provide shop drawings and submittals to ensure that materials, equipment, etc, are in compliance with the Contract Documents.
5. Contractors to mobilize to site. Notify owner and engineer of planned storage/staging areas, locations of job trailers etc.
6. ~~Contractors shall adhere to NYSDEC best practices for stormwater control throughout the project.~~
7. Contractor to coordinate any, in-plant connections to w/ plant staff and stage the work so as to minimize downtime in pipeline to not be out of service for more than 120 minutes.
8. General and Electrical Contractors to coordinate for work related to the new pump station.
9. Contractor to coordinate the installation of new UV disinfection system w/ plant staff and stage work to minimize downtime. Piping shall not be out of service for more than two hours. If a longer shutdown is required, contractor shall furnish temporary piping to allow for plant to remain in operation (ability to discharge through existing weir).
10. Contractors to perform daily cleanup of work areas, including sweeping and dust control.

01305-1

11. Complete site restoration and perform final inspection with owner, engineer, and regulatory agencies.
12. Provide all spare parts, training, startup services by manufacturer's reps, provide manuals and as-builts.
13. Complete punch-list work and demobilize.
14. Provide project closeout paperwork, including maintenance bonds.
15. Onsite Construction to be completed by October 31, 2017

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

PART 4 PAYMENT

Payment for the work associated with preparing and submitting the sequence of construction shall be included Work Items entitled Mobilization, Demobilization, Bonds, Insurance, and Miscellaneous - (Lump Sum Basis) and applicable Bid Alternate Work Items.

01305-2

END OF SECTION

SITWORK AND RESTORATION

PART 1 - GENERAL

THIS SECTION LEFT IN TO ACCOUNT FOR ANY DAMAGE THAT OCCURS TO LAWNS, DRIVEWAYS.

1.1 SUMMARY

A. The Contractor shall perform sitework and restoration as necessary to access and complete the work, and to restore to pre-work or new conditions.

1.2 WORK INCLUDED

A. Clearing and grubbing, removal and disposal of trees, brush, debris, pavement, piping, structures and other materials unsuitable for reuse. Contractor shall coordinate removal of any trees with the Owner, Engineer and property owner to determine if and to confirm that they can be removed. Disposal shall be at a suitable upland location of the Contractor's choosing, in accordance with applicable regulations. No materials may be disposed of at sites which are designated as State or Federal wetlands.

B. All types of surfaces, roadways, sidewalks, curbs, gutters, culverts, ditches, parking areas, and other items/structures/features disturbed, damaged or destroyed during the performance of the work under or as a result of the operations of the Contract, shall be restored and maintained, as specified herein or as modified or described in the Special Provisions. Pavement striping shall be performed as appropriate where existing striping is impacted.

C. The quality of materials and the performance of work used in the restoration shall produce a new surface or new item/ structure/ feature equal in function to that before the work began.

D. The Contractor shall be responsible for protection of existing materials to remain, grading, shaping, rolling, backfilling, compacting, liming, fertilizing, seeding and site work once the trenches and other excavations have been completed. Finished grading shall not be completed until underground utilities are installed.

1.3 RELATED WORK SPECIFIED ELSEWHERE

A. Related work includes but is not limited to the following Technical Specification Section:

1. Section 02120:- Erosion and Sediment Control
2. Section 02220:- Excavation & Backfill
3. Section 02875:- ~~Commonly Installed Turf Reinforcing Mats~~
4. Section 03310:- Concrete Sidewalks & Curbs

1.4 SUBMITTALS

A. Provide submittals for materials listed in Part 2.

- Topsoil (source, and sieve analysis)
- Lime (source, type, bag or bulk)
- Fertilizer (source, type, bag or bulk)

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- Seed (source, mix design, bag tags)
- Mulch (source and type)
- Trees and shrubs (source, type, height, diameter, other information required)
- Stone for walks, curbs or gutters, if work required
- Concrete mix design, if work required
- Asphalt mix design, if work required

1.5 QUALITY ASSURANCE

A. State and local code requirements shall control the methods used to clear site and procedures for disposal of removed materials.

B. State Department of Transportation Standards shall govern unless specifically indicated otherwise.

C. Examine Contract Documents for all work required and coordinate and cooperate with others so as not to delay or interfere with the work of others.

D. Employ a licensed engineer or surveyor to stake out both horizontal and vertical control for all work prior to commencing any work operations.

1.5 EXISTING UTILITY INFORMATION

A. Information on the drawings relating to existing utility lines and services is from the best sources presently available. All such information is furnished only for information and is not guaranteed. Excavate test pits as required to determine exact locations of existing utilities.

PART 2 - PRODUCTS

2.1 GENERAL

The replacement of surfaces at any time, as scheduled or as directed, shall not relieve the Contractor of responsibility to repair damages by settlement or other failures.

2.2 LAWNS AND LANDSCAPED AREAS

The Contractor shall be responsible for all site work including topsoil, seeding, and the final grading as outlined above.

A. Seed - Lawns and Flat Areas

Kentucky Bluegrass Commercial 50# ACRE

Perennial Rye Commercial 10# ACRE

White Clover Commercial 5# ACRE

B. Fertilizer 10-16-4 or 12-6-6 20#/1000 square feet

(Nitrogen-Phos-Potash)

C. Lime Hydrated, granular 40#/1000 square feet

D. Mulch Clean straw or hay (one ton/acre)

E. Topsoil Clean, 100% passing 3/8" sieve (see below).

02200-2

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2.3 AREAS TO BE COVERED BY TURF REINFORCING MATS or Steep Slopes

A. Seed

Creeping Red Commercial 10#/1000 square feet

Fescue Commercial 15#/1000 square feet

Tall Fescue Commercial 15#/1000 square feet

Broom Grass Commercial 15#/1000 square feet

Crown Vetch Commercial 15#/1000 square feet

Annual Rye Grass Commercial 10#/1000 square feet

B. Fertilizer 10-16-4 or 12-6-6 20#/1000 square feet

(Nitrogen-Phos-Potash)

C. Lime Hydrated, granular 40#/1000 square feet

D. Mulch Clean straw or hay unless TRM is immediately installed

E. Topsoil Clean, 100% passing 3/8" sieve (see below).

PART 3 EXECUTION

3.1 PROTECTION OF EXISTING SITE, FACILITIES, ETC.

A. Conduct site clearing operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities. Do not close or obstruct streets, walks or other occupied or used facilities without permission from authorities having jurisdiction.

B. Provide protection necessary to prevent damage to existing improvements and utilities indicated to remain in place on adjoining properties and on Owner's property.

C. Restore damaged improvements to their original condition and grades, as acceptable to property owners.

D. Locate existing utilities with assistance of local utility companies and public agencies.

E. Protect existing trees and other vegetation, not marked or scheduled for removal, against unnecessary cutting, breaking or skinning of roots and branches, skinning or bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line. Do not run heavy equipment over tree root systems. Maintain minimum trench widths near root systems so as to avoid unnecessary injury. Water trees and other vegetation to remain within limits of contract work as required to maintain their health during course of construction operations.

F. Repair or replace trees and vegetation indicated to remain which are damaged by construction operations, in a manner acceptable to Owner or if in the NYS Forest Preserve, to the satisfaction of NYSDEC Parks personnel. Employ a licensed arborist to repair damages to trees and shrubs at no additional cost to Owner.

G. Replace trees which cannot be repaired and restored to full-growth status, as determined by arborist with same species of equivalent size or of species and acceptable size as determined by the Owner or if in the NYS Forest Preserve, to the satisfaction of NYSDEC

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Parks personnel. Replacement cost to Contractor will be determined in accordance with the "Tree Evaluation Formula" published in the "Guide to Professional Evaluation of Landscape Trees, Specimen Shrubs and Evergreens" as published by the International Society of Arboriculture.

3.2 LAYOUT

A. Stake out both horizontal and vertical control for all work prior to commencing work operations. Accurately locate and maintain location of all buildings, roads, paved areas, features, etc. Advise Engineer of any Contract Document discrepancies, prior to commencing work.

B. Maintain benchmarks, monuments and other reference points. Re-establish benchmarks if disturbed or destroyed at no cost to Owner.

3.3 SITE CLEARING

A. General: locate and suitably identify trees and improvements to remain. Remove trees, shrubs, grass and other vegetation, rock/boulders, improvements, or obstructions as required to permit installation of new construction. Remove similar items elsewhere on site or premises as specifically indicated. "Removal" includes transporting off-site and legally disposing of removed non-salvageable material.

B. Cut minor roots and branches of trees indicated to remain in a clean and careful manner, where such roots and branches obstruct installation of new construction.

C. Topsoil: topsoil is defined as friable clay loam surface soil found in a depth of not less than 4". Satisfactory topsoil is free of subsoil, clay lumps, stones, and other objects over 3/4" in diameter, and without weeds, roots, and other objectionable material.

D. Strip topsoil in all building areas and all areas to be re-graded, resurfaced, or paved within Contract Limit Lines, to whatever depths encountered in a manner to prevent intermingling with underlying subsoil or other objectionable material.

E. Stockpile topsoil shall be free of trash, brush, rock/boulders over 1" diameter and other extraneous matter.

F. Remove heavy growths of grass from areas before stripping.

G. Where existing trees to remain, leave existing topsoil in place within drip lines to prevent damage to root system.

H. Stockpile topsoil in storage piles. Construct storage piles to provide free drainage of surface water, maximum slope to be 3:1. Cover storage piles, if required, to prevent water wind erosion. No topsoil shall be removed from the site, until after all topsoil requirements have been met.

J. Dispose of unsuitable or excess topsoil same as specified for disposal of waste material.

L. Fell trees to be removed in a controlled, safe manner. Trim

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branches from pole and cut pole into manageable sections.

M. Cut off shrubs and other vegetation, to be removed, flush with original ground surface. Completely remove stumps, roots, and other debris protruding through ground surface and in area(s) of new foundations, or paved improvement.

O. Remove organic and metallic debris to a depth of 3 feet below existing grade to remain or new finished grade whether lower or higher than existing grade.

P. Use only hand methods for grubbing inside drip line of trees indicated to remain. Strip grass materials under tree canopies and carefully till or scarify existing grading to a maximum depth of 1".

Q. Fill depressions caused by clearing and grubbing operations with satisfactory soil materials, unless further excavation or earthwork is indicated.

R. Place fill material in horizontal layers not exceeding 6" loose depth, and thoroughly compact to a density equal to adjacent original ground.

S. Removal of improvements: remove existing above-grade and below-grade improvements as indicated and as necessary to facilitate new construction.

T. Abandonment or removal of certain underground pipe or conduits may be indicated on mechanical or electrical drawings, and is included under work of related Division 15 and 16 sections. Removal of abandoned underground piping or conduit interfering with construction is included under this Section. Record existing utility termination points before disconnecting. Close abandoned piping with 8" thick concrete plug(s) or mortar joined masonry bulkhead.

U. Remove existing sidewalks, curbs, and paving, including all base material to subgrade, as required to accommodate new construction, as shown on drawings. Cut existing sidewalks, curbs, and paving in neat, straight lines to provide uniform, even transition from new to adjacent existing work. Cut back existing paving a sufficient distance to permit forming and installation of new work.

V. Remove, temporarily relocate during construction, and reinstall in final location street signs and other designated items as shown on Drawings. Coordinate the work with applicable governing authorities. Comply with all requirements concerning temporary installation and permanent reinstallation.

3.4 DISPOSAL OF WASTE MATERIALS

A. Burning on Owner's property: burning is not permitted on Owner's property.

B. Removal from Owner's property: remove waste materials and unsuitable or excess topsoil from Owner's property. Dispose of materials unsuitable for reuse at a suitable upland disposal site of the Contractor's choosing in accordance with applicable regulations.

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to withstand the traffic to which it will be subjected. In streets with asphalt base where grinding will occur following placement of temporary pavement, 4" of compacted hot-mix binder (Type 3 in non-NYS DOT and Superpave in NYSDOT areas) shall be installed.

C. Where concrete pavements are removed and where grinding will occur following placement of temporary pavement, temporary pavement shall consist of 6" of compacted hot-mix asphalt binder (Type 3 in non-NYS DOT and Superpave in NYSDOT areas), placed on top of 6" (minimum) of Class "C", 2500 psi concrete or 6" of compacted hot-mix asphalt base (Type 1 in non-NYS DOT and Superpave in NYSDOT areas) (see Contract Drawings). The temporary pavement shall conform to the slope and grade of the area being restored.

D. For dust prevention, the Contractor shall treat all surfaces, not covered with asphalt, as frequently as may be required.

E. The Contractor shall maintain the temporary pavement in a safe and satisfactory condition until such time as the permanent paving is completed. The Contractor shall immediately remove and restore all pavements as shall become unsatisfactory.

3.8 PERMANENT PAVEMENT REPLACEMENT

A. The permanent and final repaving of all roadways, streets, driveways and similar surfaces where pavement has been removed, disturbed, settled or damaged by or as a result of performance of the Contract shall be repaired and replaced by the Contractor, by a new and similar pavement.

The top surface shall conform to the grade of existing adjacent pavement and the entire replacement shall meet the current specifications of the local community for the particular types of pavement, and details on the Drawings. Where the local community has no specification for the type of pavement and no details are shown on the Drawings, the work shall be done in conformity with the State Department of Transportation Standard which conforms the closest to the type of surfacing being replaced, as determined by the Engineer.

3.9 PREPARATION FOR PERMANENT PAVEMENT

A. When scheduled and within the time specified, the temporary pavement shall be removed and a base prepared, at the depth required by the local community or Highway Permit, to receive the permanent pavement.

B. Establish grade and thoroughly compacted before placing the permanent pavement. Any base material that has become unstable for any reason shall be removed and replaced with compacted base materials.

C. Prior to placing the permanent pavement, all service boxes, manhole frames and covers, and similar structures within the area shall be adjusted to the established grade and cross-section.

D. Where noted in the Sections entitled "Asphalt Grinding" or "Pavement" or on the Contract Drawings, existing paved surfaces shall

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[Note, no material is to be placed in State or Federal designated wetlands]

3.5 CLEANING

A. Upon completion of site preparation work, clean areas within contract limits, remove tools and equipment. Provide site clear, clean, and free of materials and debris and suitable for site work operations.

3.6 LAWNS AND LANDSCAPED AREAS

A. Topsoil shall be furnished and spread in the required areas to a minimum depth, after rolling, of 4". Topsoil shall be natural, fertile, friable soil, capable of sustaining vigorous plant growth, free from stones, roots, sticks, and other foreign substances and shall pass a 3/4" sieve. The topsoil shall have an acidity range of pH 5.0 to 7.0 and shall contain not less than 6% organic matter and not more than 2% clay.

B. Topsoil shall not be delivered or placed in a frozen or muddy condition. The material shall be uniformly compacted with a hand roller to a final depth of not less than 4 inches. When finished, the surface shall conform to the acceptable finished grades shown or required and shall have a smooth pulverized surface at the time of seeding. Any irregularities shall be corrected before liming and fertilizing and seeding. Any subsequent settlement or displacement of the topsoil shall be restored to an acceptable condition at the Contractor's expense.

C. The Contractor shall be responsible for applying lime, fertilizer, seed and mulch within the areas impacted by the work and along trench excavation limits that are not occupied by structures or walkways. If any sidewalk segments are damaged during construction, they shall be repaired by the Contractor with class A concrete (See related sections). All final grading shall be raked to remove all stones greater than 1" in diameter. The final grading shall be such that the restored area can be easily mowed without damage to the mower blade. Fertilizer, lime, seed and mulch shall be placed immediately after topsoil has been raked and rolled. The General Contractor shall be responsible for all grading and seeding of excavations by other contractors and for areas that have been damaged during construction.

3.7 TEMPORARY PAVEMENT

A. Immediately upon completion of refilling of the trench or excavation, the Contractor shall place a temporary pavement over all disturbed areas of streets, driveways, sidewalks, and other traveled places where the original surface has been disturbed as a result of his operations.

B. Unless otherwise specified or directed, the temporary pavement shall consist of compacted hot-mix binder (Type 3 in non-NYS DOT and Superpave in NYSDOT areas), 4" minimum, or to such a depth as required

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be grinded/milled to remove existing pavement. Depth of grinding to be as noted in "Asphalt Grinding" or on Contract Drawings but shall not be less than 2 inches. Grindings shall be delivered to the Owner's designated stockpile area unless grindings are not wanted by the Owner, in which case the Contractor shall remove and dispose of grindings.

1. Note that for Contract TD1-G-16 the Base Bid work to be performed by the Contractor does not include Asphalt Grinding. The Town anticipates performing the Asphalt Grinding under a separate contract utilizing the County Bid price.

2. The Town does require that the Contractor submit Bid Alternate pricing to perform the Asphalt Grinding that will coincide with this project. At the time of the Bid the Owner will evaluate if they desire to award the Bid Alternate work for Asphalt Grinding to the Contractor, or if they desire to have the work done by a separate contract at County Bid price.

F. The edges of existing asphalt pavement shall be cut a minimum of two feet beyond the excavation or disturbed base, whichever is greater. All cuts shall be parallel or perpendicular to the centerline of the street.

3.10 ASPHALT PAVEMENT

A. The permanent asphalt pavement replacement for streets, driveways and parking area surfaces shall be replaced with bituminous materials of the same depth and kind as the existing unless otherwise specified in Section Entitled "Pavement" or shown on the Drawings.

B. Prior to placing of any bituminous pavement, a sealer shall be applied to the edges of the existing pavement and other features.

C. The furnishing, handling and compaction of all bituminous materials shall be in accordance with the State Department of Transportation Standard.

D. Pavement striping shall be installed in areas where existing striping is impacted due to the work (i.e. along NYSDOT roadways where pavement will be disturbed due to new waterline installation).

3.11 CONCRETE PAVEMENT AND PAVEMENT BASE

A. Concrete pavements and concrete bases for asphalt, brick or other pavement surfaces shall be replaced with Class "C" concrete, air-entrained, unless otherwise shown on the Contract Drawings.

B. Paving slabs or concrete bases shall be constructed to extend at least one foot beyond each side of the trench and be supported on undisturbed soil. Where such extension of the pavement will leave less than two feet of original pavement slab or base, the repair of the pavement slab or base shall be extended to replace the slab to the original edge of the pavement or base unless otherwise indicated on the Contract Drawings.

C. Where the edge of the pavement slab or concrete base slab falls within the excavation, the excavation shall be backfilled with Type B-

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4 (Item 4) or Type B-5 gravel and compacted to 95% maximum dry density as determined by ASTM D698 up to the base of the concrete.

D. The new concrete shall be of the same thickness as the slab being replaced, or at least 6" thick, whichever is greater and shall contain reinforcement equal to the old pavement. New concrete shall be placed and cured in accordance with the applicable provisions of the State Department of Transportation Standards.

3.12 STONE OR GRAVEL PAVEMENT

A. All pavement and other areas surfaced with stone or gravel shall be replaced with material to match the existing surface unless otherwise specified. The depth of the stone or gravel shall be at least equal to the existing. After compaction, the surface shall conform to the slope and grade of the area being replaced.

3.13 CONCRETE WALKS, CURBS AND GUTTER REPLACEMENT

A. Concrete walks, curbs and gutters removed or damaged in connection with or as a result of the construction operations shall be replaced with new construction as specified in the Section entitled "Concrete Sidewalks and Curbs".

B. The minimum replacement will be a flag or block of sidewalk and five feet of curb or gutter.

C. Walks shall be constructed of 5000 psi concrete, with 1.5 pounds of fiberglass fibers per cubic yard, as specified as Mix SW in Section 03300-Concrete, on a minimum 4-inch base of compacted Item 4 gravel.

D. The walk shall be not less than 4 inches in thickness in non-driveway areas and at least 6 inches in driveway areas or areas subject to vehicular travel. The walk shall have expansion joints spaced not more than 20 feet apart, and shall be sloped at right angles to the longitudinal centerline approximately 1/8 inch per foot of width. Control joints shall be installed every 5 feet. One-half inch expansion joint material shall be placed around all objects within the sidewalk area as well as objects to which the new concrete will abut, such as valve boxes, manhole frames, curbs, buildings and others.

02200-9

B. See "Concrete Sidewalks and Curbs" and the Contract Drawings for additional information.

3.14 STONE WALKS, CURBS AND GUTTERS

A. Stone (e.g., bluestone) walks, curbs and gutters removed or damaged in connection with or as a result of the construction operations shall be replaced with new materials of dimensions and type to most closely match the existing unless otherwise agreed to with the affected property owner.

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B. The minimum replacement will be a flag or block of sidewalk and five feet of curb or gutter.

PART 4 - PAYMENT

Payment for this section will be included in all Work Items and Bid Alternate work items related to sitework and restoration.

END OF SECTION

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SECTION 02611
DUCTILE IRON PIPE

PART 1. GENERAL

1.1 WORK INCLUDED

The Contractor shall furnish and install centrifugally cast ductile iron pipe, fittings, and appurtenances.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Excavation and Backfill:
- B. Pipeline Installation:
- C. Leakage and Pressure Testing:
- D. Chlorination:

1.3 APPLICABLE CODES, STANDARDS AND SPECIFICATIONS

- A. American National Standards Institute (ANSI)
- B. American Water Works Association (AWWA)
- C. American Society for Testing and Materials (ASTM)

1.4 SUBMITTALS

The Contractor shall provide the following submittals in accordance with these specifications:

- A. The manufacturer's technical data and installation instructions.
- B. Statements that all of the specified tests have been made and the results thereof comply with the requirements of the specified standards.
- C. Pipe, joint, fittings and poly wrap details.
- D. Submit layout drawings for Ductile Iron Pipe to be installed within structures showing the location including details of the support system, sleeves and appurtenances.

PART 2. PRODUCTS

2.1 GENERAL

A. Ductile Iron pipe and fittings shall comply with the following standards:

Ductile Iron Pipe	ANSI/AWWA C151/A21.51
Fittings	C110/A21.10
Joints-Flanged	C115/
Cement Lining	C104/A21.40
Asphalt Coating	C151/A21.51
Flexible Joint Cast DI Bell	ASTM A536, Grade 70-50-05
Polyethylene Wrap	C105/A21.5

B. All shipments of material shall be tested in accordance with the provisions for testing in the applicable standards.

2.2 DUCTILE IRON PIPE

A. Buried ductile iron pipe to be Class 52, CEMENT LINED, and ASPHALT COATED unless otherwise specified. ~~River crossing (underwater) pipe to be extra wall ductile iron.~~ Flanged pipe shall be thickness Class 53. Contractor is not to use any unflanges on pipe with pressure over 20 psi.

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submitted for review.

F. Flexible joint pipe for use in underwater river crossings shall be boltless flexible joint pipe, U.S. Pipe USIFLEX, American Ductile Iron Pipe or approved equal.

PART 3. EXECUTION

3.1 COATING, PAINTING AND LINING

A. Coating, painting and lining shall be as follows unless otherwise specified in the pipe schedule:

1. Pipe installed in the ground, in exposed exterior locations, in contact with water or inside structures but not scheduled for painting:
 - Interior: standard thickness cement lining with sealcoat unless otherwise specified.
 - Exterior: Bituminous coating.
2. Pipe installed inside structures or scheduled for painting:
 - Interior: standard thickness cement lining with sealcoat unless otherwise specified.
 - Exterior: Pipes with bituminous coatings shall be coated with Inextol "Tar Stop", or Mobil Anti-Bleeding Sealer Aluminum 13-A-1 or equal, or sandblasted as specified, before additional coats are applied. Where inside piping is described in the piping schedule to receive field painting, a shop prime coat of TNEMEC 77 Chem Prime, Koppers Paq Prime or equal may be supplied. If a shop prime is applied, the field prime specified in the Section entitled "Painting" shall be touch up only.

3.2 INSTALLATION AND HANDLING

- A. Ductile iron pipe shall be installed in accordance with the applicable provisions of the Section entitled, "Pipeline Installation".
- B. All ductile iron pipe and fittings shall be handled with padded slings or other appropriate equipment. The use of cables, hooks or chains will not be permitted.
- C. All underground ductile iron pipe shall be polyethylene encased, unless otherwise directed by the Owner.

3.3 TESTING

Hydrostatic tests shall be performed in accordance with the Section entitled "Leakage and Pressure Testing".

3.4 DISINFECTION

All lines used for transmitting potable water or water which will be treated for potable will be chlorinated in accordance with the Section entitled "Chlorination-Disinfection".

PART 4. PAYMENT

Payment for this section shall be included in Work Items and Bid Alternate Work Items related to DUCTILE IRON PIPE.

END OF SECTION

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B. Ductile Iron pipe shall be centrifugally cast. All pipes shall have the class, manufacturer's mark, the year produced, and "DI" or "Ductile" painted on each length.

2.3 JOINTS

A. The type of joints for ductile iron pipe and fittings shall be listed in the pipe schedule and/or as shown on the Contract Drawings. For Contract TDI-G-16 all subsurface piping/fittings shall utilize mechanical or push-on style joints unless otherwise specified on the contract drawings. All above grade piping/fittings shall utilize flanged fittings unless otherwise specified on the contract drawings.

B. To ensure electrical conductivity bronze wedges, jumpers or lead tipped gaskets shall be installed at each mechanical or push-on joint as called for in the pipe schedule.

1. Mechanical joints shall be assembled in accordance with the notes of Method of Installation, AWWA C111, Appendix A. All bolts shall be tightened by means of torque wrenches such that the follower shall be brought up evenly. If effective sealing is not obtained at the specified torques, the joint shall be disassembled, cleaned and reassembled.

~~2. Push-on joints shall be assembled using lubricant furnished by the manufacturer. The joint shall be made by guiding the pipe and into the bell until contact is made with the gasket and exerting sufficient force to drive the pipe home until penetration is made to the depth recommended by the manufacturer.~~

C. Flanged joints shall be assembled with through bolts of the size required for the pipe being installed. Stud bolts shall be used only where shown or required. Connecting flanges shall be in proper alignment and no external force shall be required or used to bring them together.

1. Flanges for flanged joints shall be drilled for 125-psi pressure unless otherwise specified.
 - a) Flange bolts and nuts shall be steel, ASTM A307, Grade B, and shall be cadmium plated except where other materials are called for in the pipe schedule.
 - b) Cadmium plating shall be a thickness of 0.0003 to 0.0005 inches.
 - c) Gaskets for water and sewage piping shall be 1/8" thick of the ring type of cloth inserted rubber unless otherwise specified.
 - d) Gaskets for other service shall be as specified.

D. UNI-FLANGES shall be installed where specified on the Contract Drawings. They shall be of ductile iron. Setscrews shall be AISI 4140 high strength low alloy steel; 190,000 psi tensile strength with the corrosion resistance of CORTEN. Case and core hardened. Dipped in corrosion protection solution - NOT plated. Flanges shall be "Kwick-Flange" as manufactured by Standard International, Uni-Flange by Ford Meter Box Company or approved equal.

E. Grooved and shoulder type joints of the rigid design may be used in lieu of flanged joints with the prior acceptance of the Engineer and shall be in accordance with AWWA C606 and Table 5 for iron pipe.

1. Bolts and nuts shall be cadmium-plated steel.
2. Details of supports, anchors and couplings shall be

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SECTION 02611.A
VICTAULIC SYSTEM AND FITTINGS

Victaulic is a mechanical pipe joining method (fittings & couplings) via the grooved pipe coupling system they designed. It is readily adaptable to field preparation of pipe although training and experience is required. A special tool is used for grooving pipe in field preparation situations. Contractor must have use of the Victaulic grooving tool. This is rentable from Victaulic. Contractor shall prove experience with preparation and installation of Victaulic fittings or arrange and document training of their employees.

Contact: Mr. Marc Shaffer,
Victaulic Infrastructure
Mobile: (781)254-4192
Email: marc.shaffer@victaulic.com

1.01 General:

Section Includes:

General
Materials:
Pipe
Victaulic Couplings
Victaulic Fittings
Victaulic Valves
Victaulic Specialties
Victaulic Tooling
Execution

Submittals:

Victaulic products to be used are:
- 6" plug valve
- Grooved 6" DIP (field prepare)
- 6" Vic clamps
- 8"x 6" Concentric reducer
- 8" x 8" tees
- 8" plug valves
- Vic x flange adapters, 8"
- 45° elbows
- 22.5° elbow
- Grooved 8" DIP (field prepare)
- 8" Vic clamps

References:

American Society for Testing Materials (ASTM)
ASTM A-53 - Pipe, Steel, Black and Hot-Dipped Zinc Coated, Welded and Seamless.

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ASTM A-183 - Carbon Steel Track Bolts and Nuts
ASTM A-234 - Standard Specification For Piping Fittings of Wrought Carbon Steel and Alloy Steel
ASTM A-449 - Quenched and Tempered Steel Bolts and Studs
ASTM A-536 - Ductile Iron Castings
ASTM F-1476 - Standard Specification for Performance of Gasketed Mechanical Couplings for Use in Piping Applications

American Society of Mechanical Engineers
ASME B16.9 - Factory Made Wrought Butt Welded Fittings
ASME B31.1 - Chemical Plant and Petroleum Refining Piping
ASME B31.9 - Building Services Piping

American Water Works Association
AWWA C-606 - Grooved and Shouldered Joints

Quality Assurance

1. To assure uniformity and compatibility of piping components in grooved end piping systems, all grooved products utilized shall be supplied by Victaulic. Grooving tools shall be supplied by the same manufacturer as the grooved components.

2.01 Materials:

A. Pipe/Grooved : Ductile Iron, ANSI / AWWA C-606 - Roll or cut grooved-ends as appropriate to pipe material, wall thickness, pressures, size and method of joining. Pipe ends to be grooved in accordance with

B. Victaulic Mechanical Couplings for Joining Carbon Steel Pipe

1. Victaulic Standard Mechanical Couplings, 2 inch (DN50) through 12 inch (DN300): Manufactured in two segments of cast ductile iron, conforming to ASTM A-536, Grade 65-45-12. Gaskets shall be pressure-responsive synthetic rubber, grade to suit the intended service, conforming to ASTM D-2000. (Gaskets used for potable water applications shall be UL classified in accordance with ANSI/NSF-61 for potable water service.) Mechanical Coupling bolts shall be zinc plated (ASTM B-633) heat treated carbon steel track head conforming to ASTM A-449 and ASTM A-183, minimum tensile strength 110,000 psi (758450 kPa) as provided standard Victaulic.

Rigid Type: Standard type coupling. Coupling housings with offsetting, angle-pattern bolt pads shall be used to provide system rigidity and support and hanging in accordance with ANSI B31.1, B31.9, and NFPA 13.
2" (DN50) through 12" (DN300): Victaulic Style 107H/107N (Quick-Vic™). Installation ready rigid coupling for direct

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stab installation without field disassembly. Gasket shall be Grade "EHP" EPDM compound with red color code designed for operating temperatures from -30 deg F (-34 deg C) to +250 deg F (+120 deg C).
10" (DN250) through 12" (DN300): Victaulic Style 07 (Zero-Flex®). Standard rigid coupling. Gasket shall be Grade "E" EPDM compound with green color code designed for operating temperatures from -30 deg F (-34 deg C) to +230 deg F (+110 deg C).

Flexible Type: Use in locations where vibration attenuation and stress relief are required. Flexible couplings may be used in lieu of flexible connectors at equipment connections. Three couplings, for each connector, shall be placed in close proximity to the vibration source.

2" (DN50) through 8" (DN200): Victaulic Style 177 (Quick-Vic™). Installation ready flexible coupling for direct stab installation without field disassembly. Gasket shall be Grade "EHP" EPDM compound with red color code designed for operating temperatures from -30 deg F (-34 deg C) to +250 deg F (+120 deg C).
10" (DN250) through 12" (DN300): Victaulic Style 75 or 77 standard flexible couplings. Gasket shall be Grade "E" EPDM compound with green color code designed for operating temperatures from -30 deg F (-34 deg C) to +230 deg F (+110 deg C).

2. Flexible Cut Grooves & Flexible Coupling (to provide for installer flexibility). Style 177N, Style 75 Flexible couplings encompass and are utilized here. This allows a limited amount of angular movement. Appropriate joints are identified with, FCG. Utilize style 31 coupling that provides a fully restrained pipe joint. Joints are rigid or flexible depending on groove style.
3. Flange Adapters: For use with grooved end pipe and fittings, flat faced, for mating to ANSI Class 125 / 150 flanges. Victaulic Style 741. For direct connection to ANSI Class 300 flanges use Victaulic Style 743.
4. Grooved couplings shall meet the requirements of ASTM F-1476.
5. Gasket: Synthetic rubber conforming to steel pipe outside diameter and coupling housing, manufactured of elastomers as designated in ASTM D-2000.
 - a. Reference shall always be made to the latest published Selection Guide for Victaulic Gaskets for proper gasket selection for the intended service.
6. Victaulic AGS Mechanical Couplings, 14 inch (DN350) through

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60 inch (DN1500): Couplings shall consist of two ASTM A-536 ductile iron housing segments, a wide elastomer pressure responsive gasket, and zinc electroplated carbon steel track head bolts and nuts conforming to the physical and chemical requirements of ASTM A-449 and the physical requirements of ASTM A-183.

Coupling housings designed with the wedge-shaped AGS key profile to engage the mating pipe(s)/component(s) wedge-shaped AGS grooves. Housings include lead-in chamfer to accommodate a wider acceptable range of initial pipe positions. Housings shall be coated with orange enamel or galvanized.

Gasket: Wide width, pressure-responsive, synthetic rubber of a FlushSeal® design, conforming to steel pipe outside diameter and coupling housing, manufactured of elastomers as designated in ASTM D-2000.

- 1) Grade "E" EPDM with green color code designed for operating temperatures from -30 deg F (-34 deg C) to +230 deg F (+110 deg C).
- 2) Grade "M" Nitrile with orange color code designed for operating temperatures from -20 deg F (-29 deg C) to +180 deg F (+82 deg C).
- 3) Grade "L" Silicone with red color code designed for operating temperatures of -30 deg F (-34 deg C) to +350 deg F (+177 deg C); recommended for dry heat service (air without hydrocarbons).
- 4) Reference shall always be made to the latest published Selection Guide for Victaulic Gaskets for proper gasket selection for the intended service.

Coupling Types:

Victaulic W07 AGS Rigid Coupling: Coupling key shall be designed to fill the wedge shaped AGS groove to provide a rigid joint that corresponds with support spacings as defined by ASME B31.1 and B31.9. Systems incorporating rigid couplings require the calculated thermal growth/contraction of the piping system to be fully compensated for in the design of the piping system through use of adequate flexible components.

Victaulic W77 AGS Flexible Coupling: Coupling key shall be designed to fit into the wedge shaped AGS groove and allow for linear and angular movement, vibration attenuation, and stress relief. Support requirements defined by Victaulic Design Data Submittal 25.01.

Victaulic Style W741 Flange Adapter 14 inch (DN350) to 24

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inch (DN600): For use with AGS grooved end pipe and fittings, flat faced, for mating to ANSI Class 125 / 150 flanges.

C. Victaulic Grooved End Fittings:

1. Standard fittings shall be cast of ductile iron conforming to ASTM A-536, Grade 65-45-12, forged steel conforming to ASTM A-234, Grade WPB 0.375" wall (9.53 mm wall), or fabricated from Std. Wt. Carbon Steel pipe conforming to ASTM A-53, Type F, E or S, Grade B. Fittings provided with an alkyd enamel finish or hot dip galvanized to ASTM A-153. Zinc electroplated fittings and couplings conform to ASTM B633.
2. AGS Fittings shall be supplied with factory AGS grooved ends, for use with Victaulic W07 or W77 couplings and W741 flange adapter. Fittings shall be manufactured of ductile iron conforming to ASTM A-536, forged carbon steel conforming to ASTM A-234, or factory fabricated from carbon steel pipe conforming to ASTM A-53. Fittings shall be manufactured to the dimensional standards ASME B16.9. Orange enamel coated or galvanized.

D. Victaulic Grooved End Valves

1. Plug Valves: 3" (DN75) through 12" (DN300) sizes, with memory stop for throttling, metering or balancing service. Unidirectional bubble-tight shut-off, bi-directional sealing optional. ductile iron body, bonnet, and plug; ASTM A-536, Grade 65-45-12. Plug encapsulated with synthetic rubber suitable for intended service. Welded-in nickel seat, stainless steel self-lubricating bearings. 175 PSI (1200 kPa). ANMA rigid groove dimensions may be adapted to IPS sized system through the use of Victaulic Style 307 transition couplings. Victaulic Series 377 eccentric plug balancing valves.

E. Victaulic Tooling:

1. Tools shall be manufactured and supplied by Victaulic. Use roll sets or cut groovers compatible with the pipe material and wall thickness per Victaulic installation instructions (I-100).
Contact: Mr. Marc Shaffer,
Victaulic Infrastructure
Mobile: (781)254-4192
Email: marc.shaffer@victaulic.com
2. Common wedge shaped AGS groove for pipe sizes 14" (DN350)

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through 24" (DN600) requiring one (1) common AGS roll set per tool, for use with approved Victaulic grooving tools. (VE414MC, VE416 FSD, VE424 MC, or VE436.)

3.01 Execution:

A. Installation:

1. Pipe ends shall be clean and free from indentations, projections and roll marks in the area from pipe end to groove for proper gasket sealing.
2. The gasket style and elastomeric material (grade) shall be verified as suitable for the intended service as specified.
3. Install the Victaulic AGS piping system in accordance with the latest Victaulic installation instructions.
4. AGS products shall not be installed with standard grooved end pipe or components. (Installing AGS products in combination with standard grooved end products could result in joint separation and/or leakage.)
5. Use Victaulic grooving tools with AGS roll sets to groove the pipe. Follow Victaulic guidelines for tool selection and operation.

Couplings installation shall be complete when visual metal-to-metal contact is reached.

7. See the latest copy of Victaulic's Field Assembly and Installation Instruction Pocket Handbook (I-100).

B. Training:

A Victaulic factory trained representative (direct employee) shall provide on-site training for contractor's field personnel in the use of grooving tools, application of groove, and product installation. Contact:

C. Application:

A Victaulic representative shall periodically visit the job site and review installation. Contractor shall remove and replace any improperly installed products.

Victaulic grooved mechanical pipe couplings, fittings, valves and other grooved components may be used as an option to welding, threading or flanged methods.

All grooved components shall conform to local code approval and/or as

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listed by ANSI-B-31.1, B-31.3, B-31.9, ASME, UL/JLC, FM, IAPMO or BOCA.

Grooved end product manufacturer to be ISO-9001 certified.

PART 4 PAYMENT

Payment for this section will be included in all work items related to Section 02612 to GC contract.

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SECTION 02618
LINK-SEALS MODULAR SEAL

1. GENERAL

Under this section complete LINK-SEAL modular hydrostatic seal product assembly shall be supplied as shown on drawings and discussed in specifications.

LINK-SEAL product is a modular, mechanical type seal product consisting of interlocking synthetic rubber links shaped to continuously fill the annular space between the pipe and wall opening.

2. MATERIALS

LINK-SEAL material of construction shall be in accordance with the following standards:

- Sealing Hardware - ASTM F593-95
- Pressure Plate - ASTM D-256, ASTM D-790, ASTM D638, ASTM D-792

3. DESIGN

For this application a LINK-SEAL product for use in steel sleeve will be utilized (to be field verified); WS-10-36-S - LS 410S-316.

- Seal Element: EPDM (black)
- Pressure Plates: Reinforced Nylon Polymer
- Bolts and Nuts: 316 SS

4. INSTALLATION

- A. Prior to ordering Link Seal Visually confirm that the existing Link-Seal product is sited in steel wall sleeve through which the 6" DIP is run.
- B. Existing Link-Seal product on the existing pipe is to be removed with the existing pipe. Sleeve is to be cleaned prior to insertion of new pipe and new Link-Seal.
- C. Center prepared pipe in the wall opening (plain on one end, grooved on the other to clamp pipe to new 6" plug valve). A temporary centering guide can be made to go on the Clear Wall side / back side of the Link Seal. Attach the pipe to the new valve.
- D. Loosen rear pressure plate just enough so links move freely.
- E. Check to be sure all bolt heads are facing the installer.
- F. Slide belt assembly into the annular space between DIP and wall sleeve.
- G. Starting at twelve o'clock use hand socket allen head or off-set wrench. Tighten maximum 4 turns, continue clockwise tightening each link 4 turns. Continue rotating around the pipe until all sealing elements uniformly "bulge" around the pressure plates.

5. PAINTING AND COATING

This equipment should not be painted as it may negatively effect the assembly.

6. PAYMENT

Payment for this Section shall be included in General Contract.

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END OF SECTION

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SECTION 02625
PLUG VALVES

PART 1. GENERAL

1.1 WORK SPECIFIED

- A. Gate valves six and eight inch for service inside structures.
- B. Valves to be resilient seat valves conforming to AWWA C606 cut grooves, unless otherwise specified or shown on the Contract Drawings.
- C. Provide valves in sizes and ends/joints as shown on the Contract Drawings. All plug valves will be Victaulic

1.2 RELATED WORK SPECIFIED ELSEWHERE:

- A. Excavation & Backfill:
- B. Pipeline Installation
- C. Leakage and Pressure Testing
- D. ~~Chlorination~~ ~~Disinfection~~ (Not required for this job)

1.3 APPLICABLE CODES, STANDARDS AND SPECIFICATIONS

- A. American Water Works Association (AWWA)

1.4 MANUFACTURERS

- A. Gate valves shall be furnished by manufacturers whose product conforms to the requirements of AWWA C606 and C517, and this specification, Victaulic - United States, 4901 Kesslersville Road, Easton, PA 18040, and Marc Shaffer, New England and New York Engineer, (761) 254 - 4192.

1.5 SUBMITTALS

- A. Shop Drawings
 - 1. Prior to obtaining any equipment in connection with this section, the Contractor shall submit detailed shop drawings and descriptions of all valves.
 - 2. Submit a materials list and complete parts list.
- B. Affidavit of Compliance
 - 1. Submit the manufacturer's affidavit stating that the valve(s) comply with all applicable AWWA provisions.
- C. Operation and Maintenance Manual

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- 1. Provide manuals per section entitled General Equipment Requirements.

PART 2. PRODUCTS

2.1 VALVES

- A. General Design-Valves 6" and 8".
- B. Resilient seated gate valves shall be furnished in accordance with the requirements of the latest "Specifications for Resilient Seated Gate Valves for Ordinary Water Works Service" adopted by the American Water Works Association, C509, and shall meet the specific requirements which follow:
 - 1. Ductile iron body with Victaulic groove fittings.
 - 2. 6" valve shall have lever lock handle and 8" shall have gear operator
 - 3. Welded nickel seat
 - 4. Plug shaft shall be ductile iron with EPDM plug coating / seal.
 - 5. Stem packing, adjustable chevron style - nitrile standard
 - 6. Upper / lower bearing: Type 316 stainless steel backed TFE - self-lubricating.
 - 7. Upper / lower thrust washer: Teflon / glass filled.
 - 8. Bonnet gasket: graphite
 - 9. Valves shall have a working pressure of at least 175 pounds per square inch.
 - 10. Each valve shall have maker's name, pressure rating and year of manufacture cast on the body.
 - 11. Prior to shipment each valve shall be pass hydrostatic testing at pressures equal to AWWA requirements.
 - 12. Any scratches to primer finish shall be repaired with primer as outlined in Section 09900.1. Valves to be painted with final color as per Section 09900.1
- A. General Design-Valves, 2" through 36" AWWA C500-Double disk Double-disk gate valves shall be furnished in accordance with the requirements of the latest AWWA C500 specifications and shall meet the specific requirements which follow:
 - 1. Iron body-bronze mounted
 - 2. Double disk parallel seat with four point wedging mechanism in sizes 4" and larger, and two point wedging system in sizes smaller than 4"

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3. Bronze non-rising stem
4. O-ring sealed stuffing box
5. Open by turning counter-clockwise
6. Valves shall have a maximum working pressure of 200 psig for 2" through 12" and 150 psig for 14" through 36" and shall show no leak.

D. Valve Joints

1. Plug valve joints shall be for use with AWWA C606 DIP cut grooves. Joined with Victaulic style 31 couplings or as recommended by manufacturer.

2.2 ACCESSORIES

A. Gearing

1. Gearing shall be installed on all plug valves larger than six inches in diameter unless otherwise specified. Gear ratios shall conform to AWWA C 500 and 509. Gear cases on valves installed in the ground shall be of the extended type and valve stem and stem seal shall be protected by a suitable shield to prevent contact of these parts with soil.
2. All non-rising stem valves with gearing installed above ground shall have position indicators unless otherwise specified.

B. Bypass

1. ~~Gate valves larger than 12 inches in diameter shall be equipped with bypass and bypass valve unless otherwise specified. Gate valves twelve inches and smaller shall be equipped with bypass and bypass valve when scheduled or shown on the Contract Drawings.~~
2. ~~The bypass valve shall conform to the provisions of this section.~~

C. Operators

1. ~~Plug valves, including bypass valves, installed in the ground shall be fitted with standard 2" wrench nuts. Gate valves, including bypass valves, installed above ground shall be fitted with a handwheel, unless otherwise specified or shown on the drawings (i.e., provided with a floor stand, motor operator, hydraulic or other operator if specified or shown on the drawings).~~
2. ~~Valves installed greater than five feet above an operating floor shall have a chain wheel operator with chain extending to four feet above the operating floor.~~

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shall operate all valves to show that they operate without binding or strain.

2. Any deficiencies in the valves or installation shall be corrected.

PART 4 PAYMENT

Payment for this Section shall be included in all Work Items and Bid Alternate Work Items related to waterline work and gate valve installation.

END OF SECTION

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3. Operators shall be supplied with a cast arrow showing the direction of valve opening.
4. Provide a tee wrench to operate the 2" nut and valve operator for every four underground valves provided for the work.

D. Extension Stems

1. Valves shown and valves installed in the ground with the operating nut greater than 4 feet below the finished grade shall have extension stems.
2. Valves in the ground shall have the stems extended to within 3 feet of the finished grade.
3. A centering device shall be placed on the extension stem just below the extended operating nut.

E. Valve Boxes

1. ~~Valves installed in the ground shall be equipped with valve boxes of the adjustable type with a barrel not less than five inches in diameter and with a base to fit the valve on which it is to be installed.~~
2. ~~The direction of opening of the valve shall be indicated by means of an arrow on the valve box cover. Where applicable the word "Water" shall also be cast in the cover.~~

2.3 PAINTING

A. Shop Coatings

1. Valves shall be shop coated with fused epoxy coating in accordance with AWWA C 500 or C509.

B. Field Painting

1. Valves to be field painted or coated shall have the same paint or coating as the piping of which they are a part per section 099000.1, entitled "Painting".

PART 3. EXECUTION

3.1 INSTALLATION

A. General

1. The installation of valves shall be to the configuration shown on the Contract Drawings and Shop Drawings and in accordance with the manufacturer's recommendations.
2. Valves shall be supported independently from the equipment and pipeline on concrete or other suitable supports approved by the Engineer.

B. Testing

1. Upon completion of the installation, the Contractor

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SECTION 02650
 LEAKAGE & PRESSURE TEST

PART 1 - GENERAL

1.1 WORK INCLUDED

A. Testing of all hydraulic structures, pressure and non-pressure piping for leakage as specified.
 1. The Contractor shall furnish all labor, equipment, test connections, vents, water and materials necessary for carrying out the pressure and leakage tests.

B. All testing shall be witnessed by the Engineer or Owner.

PART 3 - EXECUTION

3.1 LEAKAGE TESTS FOR STRUCTURES

A. Tanks, vaults, wells and other fluid containing structures (excluding manholes), shall be tested before backfilling by filling the structure with water to overflowing, or other level as may be directed by the Engineer, and observing the water surface level twenty-four hours thereafter.

1. When testing absorbent materials such as concrete, the structure shall be filled with water at least 24 hours before the test is started.

B. The exterior surface, especially at the construction joints, will be inspected for leakage during and upon completion of the 24 hour test.

1. Leakage will be considered to be within the allowable limits when there is no visible sign of leakage on the exterior surface and where the water surface does not drop except as associated with evaporation.

2. A slight dampness on the exterior wall surface during the test period will not be considered as leakage, except in the case of prestressed concrete structures.

3.2 TESTS ON PRESSURE PIPING FOR TRANSPORT OF WATER OR SEWAGE

A. General

- Pipelines designed to transport water or sewage under pressure shall be tested hydrostatically and for leakage prior to being placed in service.
- The length of piping and sections included in the tests shall meet the approval of the Engineer, but shall not exceed 1,000 lineal feet.
- Equipment in or attached to the pipes being tested shall be protected. Any damage to such equipment during the test shall be repaired by the Contractor at his expense.
- When piping is to be insulated or concealed in a structure, tests shall be made before the pipe is covered.
- All fittings, hydrants and appurtenances must be properly braced and harnessed before the pressure is applied. Thrust restraining devices which will become a part of the system must also be tested at the test pressure.
- When testing absorbent pipe materials such as asbestos cement or concrete, the pipeline shall be filled with water at least 24 hours before the test is made.

7. If the line fails the test, the Contractor shall explore for the cause of the excessive leakage and after repairs have been made the line shall be retested. This procedure shall be repeated until the pipe complies.

B. Pressure Test

1. Test pressure shall be as scheduled in the Pipe Schedule of Sections entitled "Pipeline Installation and Process Piping" or, where no pressure is scheduled, at 2 1/2 times working pressure.

a. Test Procedure A - 150 psi for 2 hours

b. Test Procedure B - 75 psi for 30 minutes

2. Testing of ductile iron water mains shall be done in accordance with ANSI/AWWA C600. Test pressure shall be at least 150 psi, or not less than 1.25 times the working pressure at the highest point along the test section, whichever is greater.

2. Test pressure shall be held on the piping for a period of at least 2 hours, unless a longer period is requested by the Engineer.

C. Leakage Test

1. The leakage test shall be conducted concurrently with the pressure test.

2. The rate of leakage shall be determined at 15-minute intervals by means of volumetric measurement of the makeup water added to maintain the test pressure. The test shall proceed until the rate of leakage has stabilized or is decreasing below an allowable value, for three (3) consecutive 15-minute intervals. After this, the test pressure shall be maintained for at least another 15 minutes.

a. At the completion of the test, the pressure shall be released at the furthestmost point from the point of application.

2. All exposed piping shall be examined during the test and all leaks, defective material or joints shall be repaired or replaced before repeating tests.

4. The allowable leakage for pressure pipelines shall not exceed the following in gallons per 24 hours per inch of diameter per mile of pipe:

Type of Pipe	Leakage
Ductile iron	16*
Asbestos-cement	20
Polyvinyl chloride, thermal plastic or fiberglass w/gasketed joints	0
Polyvinyl chloride, thermal plastic or fiberglass with solvent-cemented joints	0
Concrete with steel and rubber joints	0
Steel with welded joints	0

Type of Pipe	Leakage
Steel with gasketed joints	10
Wrought-steel	0
Copper	0
All piping inside structures	0

* This limit shall be reduced, when required, to conform to Equation 1 and Table 6A of ANSI/AWWA C600.

Regardless of the above allowables, any visible leaks shall be permanently stopped.

3.3 AIR, OIL AND GAS PIPING

A. All pipelines for air, oil and gas shall be cleaned and tested with air at the pressure specified and no leakage will be allowed. After these tests are complete, fuel gas lines shall be flushed out with nitrogen or carbon dioxide before fuel gas is admitted.

3.3 TESTS ON NON-PRESSURE PIPING FOR TRANSPORT OF WATER OR SEWAGE

A. General

- Pipelines designed to carry water or sewage in open channel flow or at minimal pressures shall be tested for leakage prior to being placed in service.
- The leakage shall be determined by exfiltration, infiltration or low pressure air. The testing method directed shall take into consideration the groundwater elevation of the section of pipe being tested. The maximum non-pressure pipeline to be tested for leakage shall be the section between manholes or 600 feet.
- Intermediate leakage tests during construction shall be made at the Contractor's discretion. Upon completion of any pipeline, the entire system including manholes shall be tested for compliance to allowable leakage.
- When testing absorbent pipe materials such as asbestos-cement or concrete, the pipeline shall be filled with water at least 24 hours before the test is made.
- Groundwater level shall be determined by the Contractor prior to any testing by reading the water level at the observation pipe in the manholes.
- If the line fails the test, the Contractor shall explore for the cause of the excessive leakage and after repairs have been made the line shall be retested. This procedure shall be repeated until the pipe complies.

- Exfiltration tests shall be made by filling a section of pipeline with water and measuring the quantity of leakage.
- The head of water at the beginning of the test shall be at least two feet above the highest pipe within the section being tested.
- Should groundwater be present within the section being tested, the head of water for the test shall be two feet above the hydraulic gradient of the groundwater.
- Should the requirement of two feet of water above the highest pipe subject any joint at the lower end of the test section to a differential head of greater than 11.5 feet another method of testing shall be employed.

C. Allowable Leakage for Non-Pressure Pipelines and Tanks
 The allowable leakage (exfiltration or infiltration) for non-pressure pipelines shall not exceed the following in gallons per 24 hours per inch of diameter per 1000 feet of pipe:

Type of Pipe	Leakage
Ductile iron - mechanical or push-on joints	0
Asbestos-cement "C" ring joints	20
Polyvinyl chloride, thermal plastic or fiberglass with push on or rubber joints	0
Polyvinyl chloride, thermal plastic or fiberglass with solvent-cemented joints	0
Concrete with rubber joints	20
Concrete with steel and rubber joints	10
Corrugated Steel	35
Clay with rubber gasket joints	10
Cast iron soil pipe	
1. drains and vents	0
2. sewer laterals	*
All piping inside structures	0
All structures **	0 + evaporation
* The same allowable as pipe to which it is connected.	
** Plus 1 gpm for every hydraulic relief valve.	

Regardless of the above allowable leakage any spurting leaks detected shall be permanently stopped.

- E. Air Testing
1. Air testing for acceptance shall not be performed until the backfilling has been completed.
 2. Low pressure air tests shall conform to ASTM C 828 except as specified herein and shall not be limited to type or size of pipe.
 3. All sections of pipelines shall be cleaned and flushed prior to testing.
 4. The air test shall be based on the average holding pressure of 3 psi gauge, a drop from 3.5 to 2.5 psi, within the period of time allowed for the size of pipe and the length of the test section. The time allowed for the 1 psi drop in pressure, measured in seconds, will be computed and will be based on the limits of ASTM C 828.
 5. When groundwater is present the average test pressure of 3 psig shall be above any back pressure due to the groundwater level.
 6. The maximum pressure allowed under any condition in air testing shall be 10 psig. The maximum groundwater level for air testing is 13 feet above the top of the pipe.
 7. The equipment required for air testing shall be furnished by the Contractor and shall include the necessary compressor, valves and gauges to allow for the monitoring of the pressure, release of pressure and a separate test gauge.
 8. The test gauge shall be sized to allow for the measuring of the one psig loss allowed during the test period and shall be on a separate line to the test section.

5. MANHOLE TESTING

A. General

1. Each manhole shall be tested by either exfiltration or infiltration.
2. A manhole will be acceptable if the leakage does not exceed an allowable of one gallon per vertical foot of depth for 24 hours. Regardless of the allowable leakage any leaks detected shall be permanently stopped.

B. Exfiltration test may be performed prior to or after backfilling. The test shall be made by filling the manhole with water and observing the level for a minimum of eight hours.

6. WATER TANK TESTING

A. General

Leakage testing shall be conducted for water tanks which have under gone rehabilitation, installation of a new manway or other work which could allow for tank leakage.

The tank shall be filled with potable water to a level at least one vertical foot above of the work which could cause leakage (e.g., above the top of the manway, highest tank wall weld, etc) and held for 2 hours. Drain tank and repair if visible or measurable leakage occurs after 2 hours or less,

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If no leakage occurs, fill tank to the overflow level and observe tank levels and tank exterior after 24 hours.

Repair leaks and coatings as required at no additional cost.

Repeat the tests as many times as required to prove that no leakage is occurring.

Testing may be done in conjunction with disinfection testing.

PART 4. PAYMENT

Payment for this section shall be included in all Work Items and Bid Alternate Work Items requiring leakage and pressure tests.

END OF SECTION

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SECTION 03300
CAST-IN-PLACE CONCRETE

PART 1. GENERAL

1.1 WORK INCLUDED

This section describes materials and methods for cast-in-place concrete, including materials, reinforcement, formwork, and testing. These Specifications shall apply to all concrete installed by any Contractor on the project.

The American Concrete Building Code Requirements for Reinforced Concrete ACI 318 and all standards cited in this code shall apply to all work.

1.2 SUBMITTALS

A. Testing

A laboratory test consisting of three (3) concrete cylinders shall be made of the concrete used in each major pour. The concrete contractor shall perform one such test on each day that concrete is poured and for each 50 cubic yards, or fraction thereof, as a part of the Contract. A record shall be kept showing the time and location of the batch from which the test was made. Three (3) copies of the test reports shall be transmitted to the Engineer who, in turn, will transmit one to the Owner. The cost of all concrete testing shall be borne by the Contractor.

Test specimens shall consist of 6" by 12" cylinders, prepared in accordance with the latest edition of the ASTM Standard Specifications entitled "Standard Method of Making and Curing Concrete Compression and Flexure Test Specimens in the Field". All tests will be as follows:

- 1 cyl - 7 days
- 1 cyl - 14 days
- 1 cyl - 28 days

All specimens shall be tested by a certified testing laboratory approved by the Engineer, in accordance with the latest edition of the ASTM Standard Specifications entitled "Standard Method of Test for Compressive Strength of Molded Concrete Cylinders, Serial Designation C39".

The testing laboratory shall conduct field tests for air entrainment and slump on all batches from which cylinders are collected in accordance with ASTM C173-C Standard Practice for Sampling Freshly Mixed Concrete.

Any concrete that fails to meet the specified requirements shall be removed and replaced with approved materials at the Contractor's expense, when and as directed by the Engineer.

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- C. Shop Drawings
1. The Contractor shall furnish shop drawings detailing all reinforcement indicated on the contract drawings. No reinforcement shall be fabricated prior to the approval of these drawings.
 2. The Contractor shall submit mix designs for all types of concrete to be used in the work, and the name and location of concrete material suppliers.

D. Other Items

1. The Contractor shall provide copies of all concrete batch plant truck slips at the time of delivery.

PART 2. PRODUCTS

2.1 MATERIALS

A. Delivery, Storage and Handling:

All materials shall be so delivered, stored and handled as to prevent the inclusion of foreign materials and damage of material by water. All materials shall be of the respective type specified herein.

B. Water

Water shall be clean and free from deleterious materials.

C. Cement

Cement shall conform to one of the following:

- C.1 Specifications for Portland Cement - ASTM 150
- C.2 Specifications for Blended Hydraulic Cements - ASTM C595 excluding types S and SA.

D. Aggregates

Aggregates shall conform to ASTM C-33. In addition, the amount of fine aggregate passing through a #200 sieve shall be less than 0.5%.

E. Reinforcing Bars

All reinforcement, used in this work, shall be of clean, new stock free from defects and free from bends not required by the drawings. The reinforcement shall be delivered, at the site of the work, free of mill or rust scales. The reinforcement shall be sorted for mesh and size and/or for size and length, properly identified and stored in racks suitably protected from the weather.

Reinforcing Bars shall conform to specifications for Deformed Billet Steel Bars for Concrete Reinforcement (ASTM A615). The yield strength of all bars (fy) shall be 60,000 psi, unless noted otherwise on the contract plans.

All reinforcement shall be tied in accordance with ACI recommendations for allowable movement during construction.

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F. Mesh
Reinforcement shall be welded mesh fabric of the respective weights and sizes called for on the drawings, or as may be hereinafter specified. Wire mesh shall conform in all respects to the ASTM Standard Specifications for "Cold Drawn Steel Wire for Concrete Reinforcement" - Serial Designation A185-37.

G. Admixtures
All admixtures shall be subject to approval by the Engineer.

Air Entraining admixtures shall conform to the specifications of ASTM C260.

Integral waterproofing shall be as manufactured by Anti Hydro Company, Newark, N.J., and conform to their specifications 1-1, Penetron Admix as manufactured by ICS Penetron International Ltd., or approved equal.

2.2 CONCRETE

All concreting, both labor and materials, shall conform to the following:

A. Proportioning

The aggregates shall be proportioned so as to produce a conglomerate aggregate of the minimum void content, plus the necessary excess of fines as may be required to give the desired workability. The mixed concrete shall contain a sufficient quantity of cement paste to slightly overfill the void.

B. All mixes should conform to the following table:

- Mix A - For standard structural concrete, walks
- Mix D - For thin structural elements, applications, slab toppings, and difficult placement circumstances
- Mix C - For non-structural fill concrete applications
- Mix H - For pumping applications
- Mix SW - For all sidewalks, curbing and handicapped rampa

MIX	CEMENT LB/CY	MAXW/C WT	FINE LB/CY	#1STONE "	#2STONE "	AC %	28 DAY STRENGTH	MAX SLUMP
A	606	0.46	1040	772	1158	6.5	4000	3.5
D	725	0.44	1200	1500	0	6	4000	3
C	605	0.44	1200	975	975	6	2500	3
H	675	0.44	1070	710	1060	4	4000	5
SW	564	0.44	1350	900	900	5	5000	3.25

All sidewalks shall include 1.5 lb. fiberglass fibers per cubic yard, Fibermesh, Grace or equal.

NO FLYASH TO BE USED IN ANY MIX.

Mix "C" shall be used for stream crossings and thrust blocks.

The Engineer must approve all mixes to be used prior to construction. No mix or concrete may be used without approval by the Engineer.

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The batch plant and the Contractor shall conform to all batch times and time limits specified by NYSDOT. Loads exceeding these times will be rejected.

F. EXECUTION

3.1 WORKMANSHIP

Workmanship shall be of the highest quality and only competent and experienced workmen, skilled in their trade, shall be employed on this work.

3.2 FORMING

All forms for concrete work shall be neatly constructed of tongued and grooved lumber or form plywood, surfaced on the side which comes in contact with the concrete, except that the forms for concrete that will be exposed shall be of plywood or steel. The design of the forms shall be satisfactory to the Engineer.

All exposed external corners of concrete shall be chamfered 3/4", except when noted otherwise.

Forms and centers shall be clean, substantial and unyielding, so that the finished work is plumb and true and presents a uniform appearance conforming to the shapes, lines and dimensions indicated on the drawings, or an may be required for the proper completion of their proper position during the placing and spading of the concrete. They shall be watertight, and if necessary, shall be caulked to obtain the required tightness.

Tie rods, or other means for holding the forms, shall be of a type acceptable to the Engineer. The use of wire ties will not be acceptable except where permitted by the Engineer.

Removable cleanout openings shall be provided at the bottom of wall forms.

All centers and forms shall be thoroughly cleaned and wetted just before placing the concrete or, where necessary, to secure a smooth surface, or when so directed by the Engineer, shall be coated with an approved form-oil.

The construction of forms shall be closely correlated with the pouring of concrete therein in order to eliminate the possibilities of damages caused by the shrinkage and warpage of the forms.

No centers of forms shall be struck or removed until the concrete placed therein has developed sufficient strength to safely support the loads imposed thereon and, even then, the consent of the Engineer shall be obtained before forms are removed.

Care shall be exercised to prevent damage of concrete during the removal of forms.

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The following schedule shall be considered the minimum period before formwork is removed under normal conditions when Type II cement is used; but its use shall not in any way relieve the Contractor of responsibility for the safety and appearance of the structure:

Type of Form	Above 60 Degrees Fahrenheit		
	50°-60°F	40°-50°F	
Columns & walls under 5' high	24 hours	36 hours	72 hours
Columns & walls 5'-10' high	3 days	5 days	7 days
Columns & walls over 10' high	5 days	7 days	10 days
Beam & girder side forms	24 hours	36 hours	72 hours
Bottom forms for slabs for 6' span or less*	5 days	7 days	14 days
Bottom forms for beams & girders	14 days	18 days	21 days
Construction joint bulk-heads	24 hours	36 hours	72 hours

*For slabs of more than 6 foot span, add twelve (12) hours for each additional foot over 5 feet.

- a. When the temperature to which forms or concrete surfaces are exposed drops below 40°F, the forms shall remain in place an additional time equal to the time of the sub-40°F exposure. If form insulation is used, concrete surface temperature shall apply.
- b. The Engineer may modify the form removal schedule if compressive tests indicate the in-place concrete to be of sufficient strength. Methods of field curing the cylinders shall simulate that of the concrete and shall be approved by the Engineer. All such tests shall be at the option and expense of the Contractor.
- c. When Type III cement or retarders are used, the form removal schedule may be modified by the Engineer.

Immediately following the removal of forms, the projecting ties shall be removed and all holes filled with grout flush with the wall. Care shall be taken to use the same brand of cement and same mix proportions used in the wall to prevent color differences.

3.3 CEMENT

A. The Contractor shall furnish and install all reinforcement called for on the drawings or as may be required; complete with all necessary metal chairs, spacers, metal hangers, etc., and recommended by the "Code of Standard Practice" of the Concrete Reinforcing Institute.

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B. Reinforcing bars shall be bent to the shapes shown on the drawings or as ordered by the Engineer. Bars of a single length shall be used in all cases except where the length required is greater than stock length or where the Engineer gives permission for shorter lengths. All bar splices shall be securely fastened together and the lap shall not be less than forty (40) diameters of the larger bar involved in the splice.

C. All bends, in reinforcing bars, shall be made cold around a pin having a diameter of at least four (4) times the least dimension of the bar. Hot bending shall not be permitted.

D. All reinforcement shall be carefully placed and fastened into position so as to maintain the proper spacing, during the pour, between adjacent bars, forms, etc. The methods used to place, support and secure all reinforcement shall conform in all respects to the "Code of Standard Practice" of the Concrete Reinforcing Steel Institute. Reinforcement shall be secured against displacement by firmly wiring at intersections and splices with not less than No. 18 U.S. standard gauge annealed. Reinforcement shall be supported in such a manner that no metal, such as the ends of metal chairs, will be left on exposed concrete surfaces. Nails shall not be driven into the outside to support reinforcement.

E. Reinforcement shall be kept free from oil and shall be satisfactorily cleaned of all rust, dirt and flaky scale before being placed in the work. If, after being placed in the work, the placing of concrete is delayed for several days, the steel shall be protected to the satisfaction of the Engineer. Exposed bars, intended for bonding with future work, shall be protected from corrosion by wrappings of burlap saturated with bituminous material or by other approved covering.

F. No reinforcing bars shall be driven or forced into the concrete after the concrete has attained its initial set.

G. All reinforcement shall be protected with concrete in accordance with governing codes, or in the absence of such codes, and unless otherwise shown on the drawings, by the following minimum requirements:

- Foundation mats, footings, etc.
- Bottom of floor slabs on earth
- Walls and beams
- Top and bottom of supported floor slabs

H. No concrete shall be placed until the forms and reinforcing, in conjunction therewith, have been inspected and approved by the Engineer. The Contractor is required to give the Engineer 24 hours notice prior to concrete pour.

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3.4 MIXING

Concrete is to be mixed uniformly with other elements and shall be mixed a minimum of two (2) minutes at a peripheral speed of two hundred (200) feet per minute after all the materials and water are in the mixer.

The entire contents of the drum shall be discharged before recharging. The mixer shall be cleaned whenever mixing is suspended and at frequent intervals when in use.

The volume of the mixed material per batch shall not exceed the manufacturer's rated capacity of the mixer.

Concrete shall be mixed in such quantities and at such time that any batch can be placed in the work within thirty (30) minutes after the time of mixing. No concrete shall be placed in the work after its initial set has occurred and re-tempered concrete shall not be used under any conditions.

Concrete shall not be mixed or deposited at any time during inclement or freezing weather without the explicit permission of the Engineer. If permitted to build concrete structures in freezing weather, the Contractor shall provide and use proper facilities for heating water and aggregate and protecting the newly mixed and placed concrete from freezing. Satisfactory appliances shall be provided and used, as approved by the Engineer, for covering and keeping warm the newly laid concrete.

Calcium chloride shall not be used in the work and protection of the concrete from freezing shall be accomplished by other means than through the use of an admixture, unless otherwise specified herein or directed by the Engineer.

3.5 READY-MIXED CONCRETE

Ready-Mixed Concrete - Conforming in every respect to the foregoing requirements and to the applicable portions of the ASTM Standard Specifications for "Ready-Mixed Concrete", Serial Designation: C94, not conflicting with the foregoing requirements will be acceptable for use on this project, providing that, in addition thereto, the following special conditions, concerning transit-mixed concrete, are observed:

1. The Engineer, or his representative, shall have access to the plant, from which the ready-mixed concrete is supplied, for the purpose of inspecting materials used in the mix and for checking and reporting the time of departure of each truck from the mixing plant to the job site.
2. The mix truck, used in transporting the concrete shall have its drum rotating from the time it is charged until it is discharged.

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No concrete shall be deposited during freezing temperatures without explicit permission of the Engineer.

Whenever the temperature of the surrounding air is below forty (40) degrees F., adequate means, as described in the following section entitled "Protection of New Work" shall be provided for maintaining the concrete at a temperature of not less than seventy (70) degrees F. until after the seventh day.

B. Cold Weather Concreting

1. Adequate equipment shall be provided for heating the concrete materials and protecting the concrete during freezing or near-freezing weather.
2. No frozen materials nor materials containing ice shall be used.
3. All concreting operations in cold weather, when temperatures are below 40°F or are expected to fall below 40°F shall conform to the requirements of ACI306.
 - a. Special attention is drawn to the minimum required placing and curing temperatures.
4. Only the specified non-chloride accelerator may be used. Calcium chloride or admixtures containing more than 0.1% chloride ions are not permitted.
5. Concrete damaged by freezing shall be removed and replaced at the Contractor's own expense.

C. Hot Weather Concreting

1. Care shall be taken to protect the concrete or schedule the operations to avoid problems incurred with flash set or too-rapid drying conditions.
2. All concreting operations during hot weather shall conform to the requirements of ACI305.
3. During hot weather, consideration shall be given to maintaining the temperature of the cement, aggregates and mixing water, such that the temperature of the concrete at the time of delivery to the job site shall in no case exceed 90° F.
4. When the concrete temperature exceeds 80° F, the water reducing, retarding admixture (Type D) may be required.

3.8 PROTECTION OF NEW WORK

All concrete shall be adequately protected from mechanical injury or by actions of the elements until such time as the concrete is thoroughly set.

Should the Engineer permit the pouring of concrete during inclement or freezing weather, the Contractor shall provide and use proper facilities, as approved by the Engineer, for adequately protecting the concrete against the weather and such protection shall be maintained continuously until the concrete is thoroughly set (see preceding article entitled "Temperatures of Concrete"). Projecting reinforcement, inserts, etc., shall be protected from disturbances until the concrete has sufficiently set to hold such items immovable.

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3. The concrete shall be on the job site and placed within a period of ninety (90) minutes after being loaded at the ready-mix plant and any concrete enroute in excess of this time limit may, at the discretion of the Engineer, be rejected.

4. Weight-tickets shall be prepared and delivered, in duplicate, with each truck showing the normal batch size, the actual weights of cement, aggregate and water and the time of loading at the ready-mix plant. A blank shall also be provided on the weigh-ticket for the time of arrival at the site; this space is to be filled in and initialed by the Contractor's superintendent or foreman. A copy of the weigh-ticket shall be delivered to the Engineer for each batch of concrete delivered to the site.

5. Drums of the mix truck shall be cleaned thoroughly with clear water after each batch.

3.6 PLACING

Before placing concrete, the forms shall be thoroughly cleaned of all chips, shavings and other debris. Provisions shall be made for transporting the concrete rapidly from the place of mixing to the work with as little jostling as possible so that the tendency of the water to rise to the top may be reduced to a minimum.

The concrete shall be placed before it has had time to attain the initial set and under no conditions shall it be re-tempered and used. Any concrete that may have become compacted shall be satisfactorily re-mixed just before placed in the forms.

Concrete shall not be deposited in free standing water, loose dirt, rubbish or other foreign matter, nor shall water be permitted to rise on or flow over freshly placed concrete until the concrete has set for at least twenty four (24) hours.

Concrete shall be thoroughly worked around reinforcement, imbedded accessories and into the corners of the forms. Concreting shall be carried on at such a rate that the concrete is, at all times, plastic and flows readily into the space between the bars.

During and after placing concrete, it shall be continuously and sufficiently forked or, if so approved, vibrated to expel entrapped air. All large stones shall be kept away from the faces by means of a spading fork.

In placing concrete, care shall be taken to avoid disturbing the steel reinforcing extending into the concrete that has partially set.

3.7 TEMPERATURE OF CONCRETE

A. Concrete, when deposited, shall have a temperature ranging between a minimum of fifty (50) degrees F. and a maximum of ninety (90) degrees F.

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It shall be the responsibility of the Contractor, through the Engineer, to see that other contractors carry out their respective work over his finished concrete properly and protect same from injury in the manner prescribed by the Engineer.

3.9 CURING

A. As soon as the concrete slabs, walks, etc. and all other exposed horizontal surfaces have been finished and are sufficiently hardened so that they will not be easily scratched, they shall be cured, as directed by the Engineer, by one of the methods outlined below:

All exposed surfaces of walls, slabs, etc. after forms have been removed, shall be kept constantly moist by sprinkling with clean water at short intervals, or by covering with burlap which shall be continuously moist, except during freezing weather water curing will not be included. The moistening shall be continued until the permanent covering is in place or until the concrete has sufficiently set.

B. Sisalkraft Paper:

All finished concrete surfaces shall be cured through the use of paper conforming to the ASTM Tentative Specifications, for "Waterproof Paper for Curing Concrete's, Serial Designation" C171 42T.

The Sisalkraft paper shall be lapped 6 inches along all edges and remain covering the concrete for at least seven (7) days. All joints shall be taped and any tears resulting from subsequent operations on the slab within the seven days shall be taped or the sheet replaced.

3.10 DEFECTIVE WORK

All concrete work, not formed as shown on the drawings, out of alignment or level, or showing a defective surface, shall be removed and completely replaced in a manner meeting with the Engineer's approval. Slight imperfections, which may be patched without impairing the strength or appearance of the structure, may be patched, providing the Engineer's permission is obtained prior to the patching.

Permission to patch work shall not be considered as a waiver of the Owner's right to require complete removal of such defective work if the patching done fails to satisfactorily restore the quality and appearance of the work. In short, all defective concrete work shall be made good by patching or replacement, regardless of any previous permission that the Contractor may have received regarding procedure or methods of concrete operations.

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Defective areas, which are to be replaced when so directed by the Engineer, shall be chipped away to a depth not less than two (2) inches clear inside of the reinforcement and the edges of the cut shall be perpendicular to the finished surface. The surfaces of the cut and a space at least six (6) inches wide, entirely surrounding the cut, shall be wetted thoroughly to prevent absorption of water from the patching mortar. The patch shall be made of the same materials and of the same proportions as were used for the original concrete except that the coarse aggregate shall be omitted and fine aggregate substituted therefore. In order for the patch to match the surrounding concrete, it may be necessary to substitute white cement for a part of the gray cement. The amount of water used in mixing shall be as little as is consistent with the requirements of handling and placing. The mortar shall be thoroughly compacted into place and shall be finished slightly higher than the surrounding surface. It shall then be left undisturbed from two (2) to three (3) hours to permit the initial shrinkage before being finished. The patch shall be finished to match the adjoining surfaces and shall be protected and cured as provided herein before.

3.11 POINTING AND PATCHING

Immediately after the removal of forms, the concrete surfaces shall be inspected for defective areas and the Contractor shall immediately replace and/or patch all imperfections in accordance with these Specifications. No pointing or patching shall be done prior to the inspection of such imperfections by the Engineer and then shall be done only after his approval has been given.

All grout shall be composed of one (1) part Portland Cement and two (2) parts sand.

3.12 FINISH

All exposed concrete, unless otherwise specified hereinafter, shall have a smooth-finished surface, comparable in appearance with a light limestone surface. The method of obtaining this smooth-finished surface is left entirely to the discretion of the Contractor. No paints or other prepared coating will be permitted. The smooth-finish shall be carried approximately six (6) inches below the finished grade.

3.13 CLEANUP

Any and all work, of this and/or other trades, soiled or damaged in the execution of the work covered by this Section of the Specifications, shall be thoroughly cleaned, repaired and/or replaced, as directed by the Engineer, at this Contractor's expense.

Upon completion of his work, this Contractor shall remove all his tools, equipment, surplus material, debris, etc., leaving the premises in an orderly and clean condition.

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CONTRACT No. TD1-G-21 GENERAL

**SECTION 05120
KINDORF METAL FRAMING SYSTEM**

PART 1 GENERAL

1.01 PRODUCTS TO BE INSTALLED

- A. Kindorf Modular Metal Framing system in 304 stainless steel. Offered by Thomas & Betts, an ABB company

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Plug Valve: Section 02629.

1.03 REFERENCES

- A. Except as shown or specified otherwise, the Work of this Section shall meet the requirements of the following:
 - 1. General Standard: "Specification for the Design of Cold-Formed Steel Structural Members" by the American Iron and Steel Institute (AISI Specification).
- B. Organizations:
 - 1. ASTM: ASTM International, 100 Barr Harbor Dr., PO Box C700, West Conshohocken, PA, 19428-2959, (610) 832-9500, www.astm.org.

1.04 SYSTEM DESCRIPTION

- A. Type of Metal Framing: Load carrying, channel steel framing.
 - 1. Framing with Kindorf Channel and accessories.

1.05 SUBMITTALS

- A. Shop Drawings: Prior to installation General Contractor shall review the site area with engineer and Operator(s) for siting of framing.
 - 1. Include the following in any submission:
 - a. Erection drawings indicating sizes and locations of devices to be mounted on framing members.
 - b. Anchor bolt plan showing anchor bolts, if any, to be placed in cast-in-place concrete Work.

3.14 COORDINATION

The General Contractor shall coordinate with other contractors as to providing sleeves, anchors, and pads, and other requirements that are necessary to complete construction. The General Contractor shall be responsible for placement of such items for the other contractors.

PART 4. PAYMENT

Payment for this section shall be included in Work Items and Bid Alternate Work Items related to concrete.

END OF SECTION

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- 2. Do not submit fabrication drawings, other than for anchor bolts, until after approval of the erection drawings.
- 3. Contractor should plan on erecting Kindorf frame after installation of the UV disinfection system.

- B. Product Data: Manufacturer's printed specifications and installation instructions for each type of metal framing and accessory, including data required to show compliance with the Drawings and Specifications.

- C. Quality Control Submittals:
 - 1. Certificates: Affidavit required under Quality Assurance Article.

1.06 QUALITY ASSURANCE

- A. Certification: Affidavit certifying that sheet steel complies with specified quality, grade, and zinc-coating.
- B. Fire Rated Construction: Wherever a fire resistance classification is indicated for metal framing components, provide framing and accessories which have been tested and classified or listed for the construction and rating shown.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver metal framing to the Site in manufacturer's unopened containers or bundles, identified with brand, type, and gage.
- B. Protect metal framing from damage and rusting. Store off the ground in dry, ventilated space.
- C. Store and handle metal framing in a manner that will not cause distortion.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Framing (Channels):
 - 1. 1 1/2" x 1 1/4" 304 SS. 12 Gauge minimum.
- B. Accessories and Fasteners:
 - 1. Three-hole angle connectors, Post base connectors (4 bolt - anchor),
 - 2. Channel nuts Kindorf (stainless steel), 3/8" 304 ss bolts for joining,

C. Galvanizing: All Klordorf Channel and fittings to be 304 Stainless Steel.

2.02 FABRICATION

- A. Fabricate metal framing in accordance with "Agreed Upon" or "Agreed as Noted" fabrication drawings only.
1. When fabrication drawings are "Approved as Noted", progress fabrication in strict accordance with the marks and notes thereon.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions: Examine surfaces to receive metal framing for defects that will adversely affect the execution and quality of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 SURFACE PREPARATION

- A. Clean surfaces that support the Work of this Section.

3.03 INSTALLATION

- A. Install metal framing and accessories in accordance with approved shop drawings, and with the metal framing manufacturer's printed installation instructions.
- B. Provide temporary bracing to ensure stability of the structure during construction.
- D. Tolerances:
1. Vertical Alignment (Plumbness) of Studs: Within 1/960th (1/8 inch in 10 feet) of the height.
 2. Horizontal Alignment (Levelness) of Walls: Within 1/960th (1/8 inch in 10 feet) of their respective lengths.
 3. Spacing of Studs: Not more than + 1/8 inch from the designed spacing, providing that the cumulative error does not exceed the requirements of the finishing materials.
- E. ~~For metal framing indicated to receive insulation, install full width insulation in voids which will be inaccessible after erection.~~
- F. ~~Installation of Runner Tracks.~~

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1. ~~Install continuous bottom and top tracks of size and gage shown. Align track accurately and, unless otherwise shown, attach to supporting structure with power driven fasteners at 16 inches oc. Install fasteners at corners and ends of tracks.~~
2. ~~At track butt joints, securely attach abutting pieces of track to a common structural element, or splice them with a welded butt joint.~~

END OF SECTION

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SECTION 09900.1
PAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. Paint and finish exposed surfaces using the combination of materials listed on Painting Schedule in Part 3 of this Section, as specified herein, and as needed for a complete and proper installation.

B. Related work:

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

2. Priming or priming and finishing of certain surfaces may be specified to be factory-performed or installer-performed under pertinent other Sections.

C. Work not included:

1. Unless otherwise indicated, painting is not required on surfaces in concealed areas and inaccessible areas such as furred spaces, foundation spaces, utility tunnels, pipe spaces, and duct shafts.

2. Metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze, and similar finished materials will not require painting under this Section except as may be so specified.

3. Do not paint moving parts of operating units; mechanical or electrical parts such as valve operators; linkages; sensing devices; and motor shafts, unless otherwise indicated.

4. Do not paint over required labels or equipment identification, performance rating, name or nomenclature plates.

5. Do not paint concrete which has been sandblasted.

D. Definitions:

1. "Paint", as used herein, means coating systems materials including primers, emulsions, epoxy, enamels, sealers, fillers, and other applied materials whether used as prime, intermediate, or finish coats.

1.2 SUBMITTALS

A. Comply with pertinent provisions of Division 1.

B. Product data: Within 35 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:

1. Materials list of items proposed to be provided under this Section;

2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.

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manufacturers' printed instructions as approved by the Engineer.

B. Weather conditions:

1. Do not apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85%; or to damp or wet surfaces, unless otherwise permitted by the manufacturers' printed instructions as approved by the Engineer.

2. Applications may be continued during inclement weather only within the temperature limits specified by the paint manufacturer as being suitable for use during application and drying periods.

1.6 MAINTENANCE

A. Upon completion of the work of this Section, deliver to the Owner an extra stock equaling 10% of each color, type, and gloss of paint used in the work, tightly sealing each container, and clearly labeling with contents and location where used.

PART 2 - PRODUCTS

2.1 PAINT MATERIALS

A. Acceptable materials:

1. The Painting Schedule in Part 3 of this Section is based, in general, on products of the Sinclair Paint Company.

2. Equal products of other manufacturers approved in advance by the Engineer, may be substituted in accordance with provisions of the Contract.

3. Where products are proposed other than those specified by name and number in the Painting Schedule, provide under the product data submittal required by Article 1.2 of this Section a new painting schedule compiled in the same format used for the Painting Schedule included in this Section.

B. Undercoats and thinners:

1. Provide undercoat paint produced by the same manufacturer as the finish coat.

2. Use only the thinners recommended by the paint manufacturer, and use only to the recommended limits.

3. Insofar as practicable, use undercoat, finish coat, and thinner material as parts of a unified system of paint finish.

2.2 COLOR SCHEDULES

A. The Engineer will prepare a color schedule with samples for guidance in painting.

B. The Engineer may select, allocate, and vary colors on different surfaces throughout the work, subject to the following:

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C. Samples:

1. Following the selection of colors and glosses by the Engineer, submit samples for the Engineer's review.

a. Provide three (3) samples of each color and each gloss for each material on which the finish is specified to be applied.

b. Except as otherwise directed by the Engineer, make samples approximately 8" x 10" in size.

c. If so directed by the Engineer, submit samples during progress of the work in the form of actual application of the approved materials on actual surfaces to be painted.

2. Revise and resubmit each sample as requested until the required gloss, color, and texture is achieved. Such samples, when approved, will become standards of color and finish for accepting or rejecting the work of this Section.

3. Do not commence finish painting until approved samples are on file at the job site.

1.3 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Paint coordination:

1. Provide finish coats which are compatible with the prime coats actually used.

2. Review other Sections of these Specifications as required, verifying the prime coats to be used and assuring compatibility of the total coating system for the various substrata.

3. Upon request, furnish information on the characteristics of the specific finish materials to assure that compatible prime coats are used.

4. Provide barrier coats over noncompatible primers, or remove the primer and reprime as required.

5. Notify the Engineer in writing of anticipated problems in using the specified coating systems over prime coatings supplied under other Sections.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Comply with pertinent provisions of Section 01620.

1.5 SITE CONDITIONS

A. Do not apply solvent-thinned paints when the temperature of surfaces to be painted and the surrounding air temperatures are below 45° F, unless otherwise permitted by the

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1. Exterior work: A maximum of five (5) different colors will be used, with variations for trim, doors, miscellaneous work, and metal work.

2. Interior work: A maximum of fifteen (15) different pigmented colors will be used, with variations for trim and wall surfaces and wainscots.

3. Dark tones: A maximum of ten (10) dark tones will be used as accent colors for interior.

2.3 APPLICATION EQUIPMENT

A. For application of the approved paint, use only such equipment as is recommended for application of the particular paint by the manufacturer of the particular paint, and as approved by the Engineer.

B. Prior to use of application equipment, verify that the proposed equipment is actually compatible with the material to be applied, and that integrity of the finish will not be jeopardized by use of the proposed equipment.

2.4 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Engineer.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.2 MATERIALS PREPARATION

A. General:

1. Mix and prepare paint materials in strict accordance with the manufacturers' recommendations as approved by the Engineer.

2. When materials are not in use, store in tightly covered containers.

3. Maintain containers used in storage, mixing, and application of paint in a clean condition, free from foreign materials and residue.

B. Stirring:

1. Stir materials before application, producing a mixture of uniform density.

2. Do not stir into the material any film which may form on the surface, but remove the film and, if necessary, strain the material before using.

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3.3 SURFACE PREPARATION PRIOR TO PRIMER COAT

- A. General:
1. Perform preparation and cleaning procedures in strict accordance with the paint manufacturers' recommendations as approved by the Engineer.
 2. Remove removable items which are in place and are not scheduled to receive paint finish; or provide surface-applied protection prior to surface preparation and painting operations.
 3. Following completion of painting in each space or area, reinstall the removed items by using workmen who are skilled in the necessary trades.
 4. Clean each surface to be painted prior to applying paint or surface treatment.
 5. Remove oil and grease with clean cloths and cleaning solvent of low toxicity and flash point in excess of 200° F, prior to start of mechanical cleaning.
 6. Schedule the cleaning and painting so that dust and other contaminants from the cleaning process will not fall onto wet newly painted surfaces.
- B. Preparation of wood surfaces:
1. Clean wood surfaces until free from dirt, oil, and other foreign substance.
 2. Smooth finished wood surfaces exposed to view, using the proper sandpaper. Where so required, use varying degrees of coarseness in sandpaper to produce a uniformly smooth and unmarred wood surface.
 3. Unless specifically approved by the Engineer, do not proceed with painting of wood surfaces until the moisture content of the wood is 12% or less as measured by a moisture meter approved by the Engineer.
- C. Preparation of metal surfaces:
1. Thoroughly clean surfaces until free from dirt, oil, and grease.
 2. On galvanized surfaces, use solvent for the initial cleaning, and then treat the surface thoroughly with phosphoric acid etch. Remove etching solution completely before proceeding.
 3. Allow to dry thoroughly before application of paint.

3.4 PAINT APPLICATION

- A. General:
1. Touchup shop-applied prime coats which have been damaged, and touchup bare areas prior to start of finish coats application.
 2. Slightly vary the color of succeeding coats.
- a. Do not apply additional coats until the completed coat has been inspected and approved.

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- b. Only the inspected and approved coats of paint will be considered in determining the number of coats applied.
3. Sand and dust between coats to remove defects visible to the unaided eye from a distance of five feet.
 4. On removable panels and hinged panels, paint the back sides to match the exposed sides.
- B. Drying:
1. Allow sufficient drying time between coats, modifying the period as recommended by the material manufacturer to suit adverse weather conditions.
 2. Consider oil-base and oleo-resinous solvent-type paint as dry for recoating when the paint feels firm, does not deform or feel sticky under moderate pressure of the thumb, and when the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.
- C. Brush applications:
1. Brush out and work the brush coats onto the surface in an even film.
 2. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, and other surface imperfections will not be acceptable.
- D. Spray application:
1. Except as specifically otherwise approved by the Engineer, confine spray application to metal framework and similar surfaces where hand brush work would be inferior.
 2. Where spray application is used, apply each coat to provide the hiding equivalent of brush coats.
 3. Do not double back with spray equipment to build up film thickness of two coats in one pass.
- E. For completed work, match the approved samples as to texture, color, and coverage. Remove, refinish, or repaint work not in compliance with the specified requirements.
- F. Miscellaneous surfaces and procedures:
1. Exposed mechanical items:
 - a. Finish electric panels, access doors, conduits, pipes, ducts, grilles, registers, vents, and items of similar nature to match the adjacent wall and ceiling surfaces, or as directed.
 - b. Paint visible duct surfaces behind vents, registers, and grilles flat black.
 - c. Wash metal with solvent, prime, and apply two coats of alkyd enamel.

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2. Exposed pipe:
 - a. Wipe all oil off of pipe
 - b. Conduct abrasive blast cleaning of piping prior to painting.
 - c. Remove band before painting, and replace after painting.
3. Hardware:
 - a. ~~Paint prime coated hardware to match adjacent surfaces.~~
 - b. ~~Paint metal portions of head seals, jamb seals, and astragal seals to match the color of the door frame unless otherwise directed by the Engineer.~~
4. Wet areas:
 - a. ~~In toilet rooms and contiguous areas, add an approved fungicide to paint.~~
 - b. ~~For oil base paints, use 1% phenylmercuric or 4% tetrachlorophenol.~~
 - c. ~~For water emulsion and glue size surfaces, use 4% sodium tetrachlorophenolate.~~
5. Interior: ~~Use "Chippie" finish where enamel is specified.~~
6. Exposed vents: Apply two coats of heat-resistant paint approved by the Engineer.

3.5 PAINTING SCHEDULE

- Provide the following paint finishes:
- A. Ductile Iron Pipe and Valves, Interior - Non Immersion:
1. Shop Surface Preparation: NAPD 500-03-04 Abrasive Blast Cleaning
 2. Prime coat: Series 394 PerimePrime
 3. Finish coats: Two Coats of V69F

PART 4 PAYMENT

Payment for this section shall be included in Work Items and Bid Alternate Work Items related to PAINTING.
END OF SECTION

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SECTION 11262
ULTRAVIOLET DISINFECTION EQUIPMENT

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Scope:
Furnish all labor, materials, equipment and appurtenances required to provide an open channel gravity flow ultraviolet (UV) disinfection system. To be complete and operational with all control equipment and accessories as shown and specified.
- B. Related Work (Specified Elsewhere):
1. Section 03300 Cast-in-Place Concrete.
 2. Section 03345 Anchor Bolts, Expansion Anchors and Concrete Inserts.
 3. Section 16143 Power Splitting Device with Receptacles
 4. Section 16400 Electrical.

1.2 QUALITY ASSURANCE

- A. Pre-qualification Requirements: Any alternate UV manufacturer that is not named or listed as approved equal must submit the following 15 days prior to bid to be considered for approval.
1. To be considered, the manufacturer will be regularly engaged in the manufacture of UV systems with a proven track record of at least one thousand (1000) municipal installations in North America.
 2. The manufacturer will provide documentation of previous experience with municipal UV disinfection systems in wastewater applications with electronic ballasts.
 3. Pre-qualification submittals from manufacturers will include a complete and detailed proposal of equipment offered, including the number of lamps proposed and a detailed description of any exceptions taken to the specification.
 4. To be considered, the manufacturer will submit a bioassay evaluation for the proposed reactor. This bioassay will have been validated by an independent third party and have followed protocols described in the US EPA Design Manual - Municipal Wastewater Disinfection (EPA/625/1-86/021), without exception. The manufacturer's bioassay report must demonstrate that the proposed UV system design and number of lamps will deliver the specified dose.
 5. Documentation of UV manufacturer's service capabilities including location and experience.
 6. Sample disinfection performance guarantee including scope and duration of guarantee.
 7. All UV manufacturers will be required to pre-qualify, unless the manufacturer is the base bid manufacturer.

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Standard Methods for the Examination of Water and Wastewater, 19th Ed.

3. UV system supplied will operate as two independent systems even though the two (2) banks will be in one channel. Each bank will have its own controller and be supplied power via its own 20 amp breaker.

1.3 SUBMITTALS

- A. Shop Drawings:
Submit for review shop drawings showing the following:
1. Complete description in sufficient detail to permit an item comparison with the specification.
 2. Dimensions and installation requirements.
 3. Descriptive information including catalog cuts and manufacturer's specifications for all components.
 4. Electrical schematics and layouts.
 5. Independent bioassay report demonstrating dose delivered under design conditions.
 6. Experience documentation.

1.4 GUARANTEE

- A. Equipment:
The equipment furnished under this section will be free of defects in material and workmanship, including damages that may be incurred during shipping for a period of 12 months from date of start-up or 18 months after shipment, whichever comes first.
- B. UV Lamps:
The UV lamps to be warranted for a minimum of 12,000 hours (non-prorated). Pro-rated lamp warranties will not be accepted.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Trojan Technologies of London, Ontario, Canada. If other equipment is proposed, the Contractor must demonstrate to the Engineer and the Owner that all requirements of materials, validation, experience, performance, and workmanship have been met or exceeded by the equipment proposed. Contractors proposing alternate manufacturers will be responsible for all costs associated with system evaluation and redesign including all electrical, mechanical and civil aspects of the installation.
- B. Other, considered must match specifications in Section 1.2, Quality Assurance, Parts A, B and C. Any engineering changes required to mechanical installation, electrical and unit supports will be borne by the General Contractor.

2.2 GENERAL REQUIREMENTS

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B. Design Criteria:

1. Provide equipment which will disinfect an effluent with the following characteristics:

a. Permit Flow:	0.10 MGD
Maximum experienced flow	0.198 MGD
Peak Hour Flow (influent to plant)	0.350 MGD
Maximum forward flow from Post EQ	0.202 MGD (140 gpm w/ two pumps running)
 - c. Total Suspended Solids: 10 mg/l, maximum, grab samples (per permit)
 - d. Ultraviolet Transmittance @ 253.7 nm: 65 %, minimum
 - e. Annual Effluent Temperature Range: 33 to 85 °F
 - f. Effluent standard to be guaranteed: 200 / 100 ml fecal coliform, based on a 30 day Geometric Mean, grab samples.
2. UV units to be sized based on Maximum forward flow from Post EQ - 140 gpm. Each Bank shall be able to handle Maximum forward flow from Post EQ with other bank out of service.
3. The UV equipment will be installed in a stainless steel channel furnished as part of this system, and having dimensions as shown on the drawings.
4. The system supplied will be arranged in the following manner.
- a. Number of Lamps in each UV Module: 2
 - b. Number of UV Modules per Bank: 4
 - c. Number of UV Banks: 2 (1 duty, 1 standby at Maximum forward flow from Post EQ - 140 gpm)
 - d. Total number of UV bulbs for system: 16
 - e. Number of System Controller: 2
 - f. Number of UV detection Systems: 4 (2 per bank)
 - g. Number of UV power distribution Units: 2
 - h. Number of GFCI outlets per Bank: 4 (4 outlets for modules)
5. The lamp array configuration will be evenly spaced in both horizontal and vertical rows with all lamps parallel to each other and to the effluent flow.
6. Each Bank will be powered separately from the other utilizing separate 20 amp breakers.

C. Performance Requirements:

1. The UV system will be designed to deliver a minimum UV dose of >30,000 (mWs)/cm², in effluent with a UV Transmission of 65% after reductions for quartz sleeve absorption, sleeve fouling, and lamp aging. The basis for evaluating the UV dose delivered by the UV system will be the manufacturer's bioassay as carried out by an independent third party. Bioassay validation methodology to follow protocols described in US EPA Design Manual - Municipal Wastewater Disinfection (EPA/625/1-86/021), without exception.
2. The UV system will produce an effluent conforming to the following discharge permit: 200 fecal coliform/100 ml, based on a 30-day Geometric Mean. Grab samples will be taken in accordance with the Microbiology Sampling Techniques found in

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- A. Provide a UV disinfection system complete with UV lamp modules, effluent channel, level control, and UV monitoring system as shown on the Contract Drawings and as herein specified.
- B. UV system will be designed as complete installation, without supplemental cooling or heating required.

2.3 DESIGN, CONSTRUCTION AND MATERIALS

A. General:

1. All material in contact with effluent will be stainless steel or quartz.
2. All material exposed to UV light will be stainless steel, anodized aluminum, quartz 214, or teflon.
3. UV3000PTP-UV3200K 1 channel, 2 Banks, with Weir and Turnbox.

B. UV Module (UVM):

1. Each UV lamp module will consist of 2 lamps/module and their corresponding electronic ballast. Each lamp will be enclosed in its individual quartz sleeve, one end of which will be closed and the other end sealed by a lamp end seal and holder.
2. The electrical wires connecting the lamps to the electronic ballasts will be enclosed in the stainless steel frame. Systems where lamp wiring is submerged in the effluent and exposed to UV light will not be allowed.
3. Each UV module will be provided with a standard 120 Volt plug and weatherproof cable for connection to a receptacle. The cable will be 10 feet long. A total of 8 UV modules will be supplied. Lamp status will be displayed on top of each UV module using watertight LED indicator lights.

C. UV Lamps:

1. UV system will use low pressure mercury slimline lamps of the hot cathode, instant start design.
2. 90% of UV output will be within the wavelengths of 233.7 to 273.7 nm.
3. The operating life of the lamp will be guaranteed for 12,000 hours, pro-rated.
4. Independent validation of lamps aging factor is required.

D. Lamp End Seal and Lamp Holder:

1. The open end of the lamp sleeve will be sealed by means of a sleeve nut which threads onto a sleeve cup and compresses the sleeve 'O' ring.
2. The sleeve nut will have a knurled surface to allow a positive handgrip for tightening. The sleeve nut will not require any tools for removal.

E. UV Lamp Sleeves:

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1. Quartz sleeves to be Type 214 clear fused quartz circular tubing as manufactured by General Electric or equal.
 2. Quartz to be rated for UV transmission of 89% and not subject to solarization.
 3. The nominal wall thickness will be 1.0 to 2.0 mm to maximize UV transmission.
- F. Effluent Channel:
1. Each UV unit will be provided with one (1) stainless steel 304, 14 gauge effluent channel complete with drain, UV module support rack and downstream level control weir.
 2. Each effluent channel will have the following inside dimensions: Bulb length 68 1/2 inches, width 12 inches, height 8 inches (Bulb channel).
- G. Level Control Weir:
1. Weir will be located downstream of the UV modules to maintain an average water depth of 8 inches and ensure lamp submergence at all times.
 2. Maximum effluent level variance from zero to peak flow will not exceed 1.5 inches.
 3. Weir will be welded water tight and include a drain. Drain shall not be blocked with UV supports.
- H. Electrical:
1. The UV disinfection system will be divided into 2 UV Banks.
 2. Interconnecting cables to be standard 120 Volt, weatherproof, 10 feet long and will be suitable for outdoor installation. Four plugs per bank.
 3. Power Distribution Receptacles (to be supplied by GC):
 - a. Power splitter panel
 - b. 120 Volt receptacles rated for continuous outdoor use will be provided. All receptacles will be of the duplex type complete with ground fault interrupt circuitry.
 - c. Receptacles to be provided by the Electrician / General Contractor.
 4. Power Consumption:
 - a. Maximum power draw to UV System will be 1400 watts or 12.8 amps. (UV and Controller)
 - b. A separate 120 volt, connection is to be provided for the Monitoring System
 - c. All electrical supplies will be 120 Volt, 60 Hz.
 - d. A separate 120 volt connection will be made to the controller.
- I. Cleaning Procedure:
- The UV lamp modules will be cleaned by removing from the effluent channel and hand wiping the sleeves with an acid solution, using a non-abrasive cloth.
- J. Monitoring System:

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1. Two (2) submersible UV sensors will continuously monitor the UV intensity produced in the bank of UV lamp modules. The sensor will measure only the germicidal portion of the light emitted by the UV lamps.
 2. UV intensity will be indicated on a 3 character display in mW/cm².
 3. Elapsed time in hours (lamp age) will be indicated on a 5 character display.
 4. Both displays will utilize LEDs and will be visible through the panel door.
 5. A dry contact will be provided for remote indication of Low UV intensity alarm.
 6. Monitoring System will be enclosed in a fiberglass Type 4X wall mounted panel (provided with UV system) and is to be located less than twelve (12) feet from the LED end of the UV Module.
- K. Power Distribution Receptacle (PDR) (previously mentioned in H-3):
1. Duplex ground fault interrupter receptacle(s) will be provided by GC or GC's e
 2. Receptacles will be mounted in an individual, painted cast aluminum junction box complete with a Type 3R rain shield for outdoor installation.
 3. Contractor can provide in one enclosure, Midwest U011010 Unmetered Feed Heavy Duty Power Outlet; 120 / 240 volt, 20 amp, galvanized steel
 4. Contractor to supply appropriate 120 Volt, single phase, 60 Hz circuit to power Control box - Monitor panel.
 5. Contractor to be responsible for distributing the power from the main 120 Volt feed to the individual PDRs.
 6. Responsibility to be all encompassing and in accordance with the local electrical codes.
- L. Alarm Wiring:
1. Electrician is to consult controls company Avanti Control Systems (ACS) on alarm wires running to Sensaphone in Office / Lab. ACS will terminate alarm wires into Sensaphone panel. Electrician to run wires and conduit from the two control boxes through CMU wall to the Sensaphone (leaving approximately 4 foot coil of labeled control wires at Sensaphone).
 2. Install 16 gauge wires from the control - monitor boxes back to the Office / Lab. Blue wire
 3. Termination and programming of Sensaphone for Alarms will be performed by ACS under allowance.
- M. Spare Parts:
- The following additional parts will be furnished:
- 1 Complete Spare UV Module
 - 8 UV Lamps

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- 8 Quartz Sleeves
8 Lamp Holders
1 Operator Kit (including 1 face shield, gloves, cleaning solution)

PART 3 - EXECUTION

3.1 INSTALLATION

- A. In accordance with shop drawings, shop and Manufacturer's instructions.
Contractor to field measure and verify all dimensions.
- B. General Contractor and their electrician responsible for installing / terminating all conduits and conductors needed to power the UV system, controller and alarm signal (alarm signal termination at Sensaphone to be handles via allowance by Avanti Controls,

3.2 MANUFACTURER'S REPRESENTATIVE'S SERVICES

- A. Installation assistance and certification: As required for proper installation prior to start up.
- B. Start-up and field testing: 3 full days on site, including all travel expenses.
- C. Operator Training: 1 full day on site.
- D. Warranty Service: As required during the warranty period.

3.3 START UP AND PERFORMANCE TESTING

- A. General Contractor shall perform all work including but not limited to, sample collection and laboratory testing, as required to verify UV disinfection system performance to satisfy the effluent characteristics as outlined above. This includes all work associated with sampling and analysis including but not limited to retaining NYS ELAP certified laboratory to provide sample containers, pick up of samples, perform laboratory analysis and provide analysis report, sample collection/refrigeration/storage of samples to maintain sample quality.

The UV disinfection system performance testing schedule shall consist of three (3), grab samples per week for two (2) consecutive weeks. Samples shall be collected from the post aeration tank influent and effluent chamber.

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	Sampling Matrix		
	Post SBR Equalization Chamber	Post UV Disinfection	UV Effluent Req't
Fecal Coliform (No./100 ml)	-	X	< 200
UV Transmittance, UV 254 (abs/cm)	X	-	-
Total Suspended Solids (mg/l)	X	-	-

Notes:

- 1) Frequency: Three (3) per week, for two (2) consecutive weeks
- 2) Sample type: Grab hour composite Post SBR Equalization Chamber

Total number of samples:

- Six Fecal Coliform tests on Post UV Disinfection.
- Six UV transmittance, UV 254 tests on Post SBR Equalization Chamber
- Six TSS tests on Post SBR Equalization Chamber.

Sampling and analysis will be performed for two (2) consecutive weeks.

Exact sampling location to be supplied by wastewater plant Management and labeled.

The contractor shall require and compensate the laboratory to perform sample analysis, and reporting, in the shortest time frame possible.

Sampling data will then be summarized by the Contractor in spreadsheet form (date of sample, sample parameter, sample result, etc.) and the summary table, as well as individual sample result sheets, will be forwarded to the Engineer along with a statement of compliance with the requirements or a plan for subsequent testing.

UV disinfection system performance will be deemed acceptable once all sample parameters meet the effluent requirements listed in 2.2B above (and repeated in the sampling matrix above) for a minimum of two (2) consecutive weeks.

If all parameter requirements are not met, sampling and analysis, as well as summarizing and forwarding sampling results to the

Engineer, will be repeated in two (2) consecutive week blocks until all parameters are met for a minimum of two consecutive weeks.

PART 4 PAYMENT

Payment for this section will be included in all Work Items related to ULTRAVIOLET DISINFECTION SYSTEM.

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SECTION 15000
GENERAL EQUIPMENT REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

A. This section sets forth general requirements related to furnishing, installing and testing of any and all equipment specified under any and all sections of these specifications.

1.2 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.
1. IEEE C2 2002 National Electrical Safety Code
 2. NEMA MG 1 2003 Motors and Generators
 3. NEMA MG 10 2001 Energy Management Guide for Selection and Use of Fixed Frequency Medium AC Squirrel-Cage Polyphase Induction Motors
 4. NEMA MG 11 1977; R 1997; R 2001 Energy Management Guide for Selection and Use of Single Phase Motors
 5. NFPA 70 2002 National Electrical Code

1.3 RELATED REQUIREMENTS

A. Related work, includes but is not limited to the following Technical Specification Sections:

1. 01300 SUBMITTALS
2. 03300 CONCRETE
3. 04070 NON-SHRINK GROUT
4. 09900 PAINTING
5. 15076 MECHANICAL IDENTIFICATION
6. 16400 ELECTRICAL

B. This section applies to all sections of this specification.

1.4 PERFORMANCE AFFIDAVITS

- A. The Contractor(s) shall submit manufacturer's performance affidavits for equipment to be furnished for this project when required in the appropriate equipment Technical Specification Section and/or the General Equipment Schedule of this Section.
- B. In the performance affidavit submittal, each Manufacturer (Supplier) must certify to the Contractor and the Owner, jointly, that he/she has examined the Contract Documents and that the equipment, apparatus, process or system he/she offers to furnish will meet in every way the performance requirements set forth in the Contract Documents. Equipment design, manufacturing, and assembly specifications are an integral part of the performance

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the Manufacturer's production schedule by the Contractor as required to meet the finalized project work schedule.

1.7 SUBMITTALS

- A. All submittals (i.e., shop drawings, descriptive data, performance characteristics, material specifications, spare parts, piping and wiring diagrams, etc., as appropriate) showing conformance of all equipment to the Contract Documents, shall be submitted to the Engineer for his or her review in accordance with Section 01300.
- B. Submittals on items requiring performance affidavits will not be reviewed until acceptable performance affidavits are received.
- C. Where submittals include information (such as piping and wiring diagrams), which is pertinent to other contractors on the project, approved copies of these submittals shall be forwarded by the Engineer to the other prime contractors concerned.
- D. All submittals must be complete, accurate, and provide sufficient details to indicate item-by-item compliance with the Contract Documents. If the submittal deviates from the requirements of the Specifications in any way, it shall be clearly marked in the submittal with the justifying reason stated for subsequent evaluation by the Engineer.
- E. All electrical motor shop drawings shall include information tabulated in one location.
- F. Submit a certified list of qualified permanent service organizations for support of the equipment which includes their addresses and qualifications.

1.8 DESIGN OF EQUIPMENT

- A. The equipment supplier or manufacturer shall review all plans and specifications, including all details, to verify the space requirements. All modifications must be clearly indicated on the shop drawings and shall be at the Contractor's or equipment suppliers' expense.
- B. All equipment/products and associated appurtenances shall be designed in conformance with NEMA, IEEE, ASME, ANSI, ASTM and other generally accepted applicable standards, and shall be of rugged construction and of sufficient strength to withstand all stresses which may occur during fabrication, testing, transportation, installation and all conditions of operation. All bearings and moving parts shall be adequately protected by bushings or other approved means against wear, and provision shall be made for adequate lubrication by readily accessible devices. Details shall be designed for appearance as well as utility. Protruding members, joints, corners, gear covers, etc., shall be finished in appearance. All exposed welds on machinery shall be ground smooth and the corners of structural shapes shall be rounded or chamfered.
- C. All machinery parts shall conform within allowable tolerances to the dimensions shown on the working drawings. Corresponding parts of identical machines shall be interchangeable.

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requirements. The Contractor must transmit to the Engineer four (4) copies of the affidavit provided to him/her by the Manufacturer or Supplier in conjunction with initial shop drawing submittals. Shop drawings will not be reviewed prior to receipt by the Engineer of an acceptable performance affidavit. The performance affidavit must be signed by an officer of the basic corporation, partnership, or company manufacturing or supplying the equipment, and witnessed by a notary public.

- C. Format for the performance affidavit shall be as follows:

Project: Contract No.: TDI-G-20 GENERAL,
TDI-E-20 ELECTRICAL
Project Title: DELANSON WWTP LONG TERM IMPROVEMENTS
City, State: DUANESBURG, NY

D. Content:
(At minimum, a statement shall be made that:)
"(Manufacturer's Name) has examined the Contract Documents and that the Equipment/Product meets in every way, the design specifications and performance requirements set forth in Technical Specification Section(s) _____ of the Contract Documents."

E. Signature: Person signing the affidavit shall be a corporate officer, vice president level or higher, unless a statement authorizing signature by another is attached.

F. Signature(s) must be notarized.

G. Address To:

Delaware Engineering, D.P.C.
55 South Main St.
Oneonta, New York 13820
and
Contractor

1.5 QUALITY ASSURANCE

- A. Material and Equipment Qualifications: Provide materials and equipment that are standard products of manufacturers regularly engaged in the manufacture of such products, which are of a similar material, design and workmanship. Standard products shall have been in satisfactory commercial or industrial use for 2 years prior to bid opening. The 2-year use shall include applications of equipment and materials under similar circumstances and of similar size. The product shall have been for sale on the commercial market through advertisements, manufacturers' catalogs, or brochures during the 2 year period.

1.6 DELIVERY, STORAGE, AND HANDLING OF EQUIPMENT

- A. Delivery dates for equipment/products shall be coordinated with

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- D. All machinery and equipment shall be safeguarded in accordance with the safety codes of the ANSI and OSHA and the New York State Industrial Code. All rotating shafts, couplings or other moving pieces of equipment shall be provided with suitable protective guards of sheet metal or wire mesh neatly and rigidly supported. Guards shall be removable as necessary to provide access for repairs.
- E. Details promoting maintenance, ease of replacing parts, and lubrication shall be a prime consideration in design. Products shall be designed for corrosion resistance and shall not be constructed of materials which may prohibit ease of maintenance due to corrosion. All fasteners on areas requiring access for maintenance and lubrication shall be Type 316 stainless steel unless otherwise specified. Zinc or cadmium plated fasteners for these areas shall not be used.

1.9 EQUIPMENT IDENTIFICATION

- A. Identification. All equipment provided by this Contractor shall be clearly identified. Refer to Section 15076
- B. Each product, piece of equipment, etc., shall be furnished with a substantial stainless steel or brass Manufacturer's nameplate. The nameplate shall be conspicuously located and securely fastened and shall be clearly inscribed with, at minimum, the manufacturer's name, address and telephone number, equipment serial number and model number (when applicable), principal rating data and year of manufacture.
- C. Each piece of mechanical equipment (i.e., pumps, control valves, etc.) shall be identified as to name and number according to the Mechanical Identification specification section.
- D. Names and numbers of mechanical equipment shall be coordinated to match same on remotely located controls, control panels, etc.
- E. Labels shall be black plastic with 3/8-inch minimum height white engraved lettering.
- F. The Contractor shall submit a list of equipment labels to the Engineer prior to the 70 percent point of construction.
- G. Nameplates and labels which have been painted over will not be accepted.

1.10 ELECTRICAL REQUIREMENTS

- A. Furnish motors, controllers, disconnects and contactors with their respective pieces of equipment.
- B. Motors, controllers, disconnects and contactors shall conform to and have electrical connections provided under the appropriate section of the 16000 sections of this specification.
- C. Furnish internal wiring for components of packaged equipment as an integral part of the equipment.
- D. Controllers and contactors shall have a maximum of 120 volt control circuits, and shall have auxiliary contacts for use with the controls furnished.
- E. When motors and equipment furnished are larger than sizes indicated, the cost of additional electrical service and related

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work shall be included under the work category that supplied that motor or equipment. Power wiring and conduit for field installed equipment shall be provided under and shall conform to the appropriate 16000 section of this specification.

- F. The supplier of the equipment shall furnish and install all disconnect switches or other approved overcurrent devices as indicated on the drawings. The electrical contractor shall furnish and install all line side wiring up to and including line side connection within the disconnect switch. All circuitry from the load side connection of the disconnect switch to the final electrical connection in the equipment shall be performed by the equipment supplier. Disconnect switches shall be properly selected and sized by the equipment supplier. (NOTE: In the absence of specific instructions on the drawing it shall be understood that all equipment furnished and installed under this requirement shall be provided with local disconnecting means.)

G. Electrical installations shall conform to IEEE C2, NFPA 70, and requirements specified herein.

H. Motors

1. High Efficiency Single-Phase Motors: Unless otherwise specified, single-phase fractional-horsepower alternating-current motors shall be high efficiency types corresponding to the applications listed in NEMA MG 11.
2. High Efficiency Polyphase Motors: Unless otherwise specified, polyphase motors shall be selected based on high efficiency characteristics relative to the applications as listed in NEMA MG 10. Additionally, polyphase squirrel-cage medium induction motors with continuous ratings shall meet or exceed energy efficient ratings in accordance with Table 12-6C of NEMA MG 1.
3. Three-Phase Motor Protection: Provide controllers for motors rated one 1.34 kilowatts one horsepower and larger with electronic phase-voltage monitors designed to protect motors from phase-loss, undervoltage, and overvoltage. Provide protection for motors from immediate restart by a time adjustable restart relay.

1.12 STANDARDIZATION OF GREASE FITTINGS

- A. The grease fittings on all mechanical equipment shall be such that they can be serviced with a single type of grease gun. Fittings shall be hydraulic type, Alemite #1600 Series or Lincoln, unless otherwise stated in the detailed equipment specifications.

1.13 SPARE PARTS AND ACCESSORIES

- A. Spare parts and accessories for equipment shall be furnished as specified in the appropriate Materials and Performance equipment section.
- B. Spare parts shall be identical and interchangeable with original parts. Parts shall be supplied in clearly identified containers,

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- C. except that large or bulky items may be wrapped in polyethylene. Each part (or group of small parts) shall be tagged. Tags shall carry the following information:

1. Identity of the equipment for which the spare part is supplied
 2. Identity or name of the part
 3. Manufacturer's name and identification number of the part.
- D. Spare parts shall be stored separately in a locked area, maintained by the Contractor and shall be turned over to the Owner in a group at initial operation.

1.14 SERVICES OF MANUFACTURER'S REPRESENTATIVE

- A. Service Support: The equipment items shall be supported by service organizations. Submit a certified list of qualified permanent service organizations for support of the equipment which includes their addresses and qualifications. These service organizations shall be reasonably convenient to the equipment installation and able to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.
- B. Where specially called for in particular Technical Specification Sections, the Contractor shall arrange for the equipment manufacturer to furnish the services of a qualified manufacturer's representative. The time period for the supervision and instructions is outlined in the respective applicable provision of the respective Section and/or in the General Equipment Schedule in this Section. Where no specific duration of visit is listed, the length of time shall be such to allow the equipment representative ample time to follow out the requirements outlined in this Section.
- C. The factory representative provided shall be trained and fully qualified and capable of performing the services required. Factory representatives shall arrive at the site with all tools, instruments, equipment, documentation, or other materials necessary to perform the required services.
- D. Time spent in travel to the site shall not be applied toward the required duration of services. Time spent at the site if not properly prepared or equipped to perform the required services shall not be applied toward meeting the specified durations. For installation, initial operation, testing, start-up and adjustment services, the durations shown in the equipment specification sections shall be considered minimums.
- E. The Contractor shall be responsible for any additional time required for the manufacturer's representative to resolve equipment installation and/or operation problems due to a lack of coordination between the supplied equipment and the Contract Documents such as, but not limited to, dimensions, electrical problems or performance.
- F. When the equipment representative is required to visit the facility on occasions after initial start up and during the first year of operation, the purpose of these visits shall be to review equipment operation, assist the operators in correcting

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operational problems, and basic inspection of the equipment. A partial list of equipment requiring services of manufacturer's representatives may be provided for convenience at the end of this Section in the General Equipment Schedule.

- C. The manufacturer's representative shall be present at installation to observe equipment installation and shall be responsible for recommending and/or making (as approved by the Engineer) minor adjustments and shall supervise field testing of the equipment.

H. Following successful installation and testing of equipment, the manufacturer's representative shall submit three (3) written copies of certification (one each to the Owner, the Engineer, and the Contractor) stating that the equipment manufacturer or supplier by their company has been installed and tested to their satisfaction and that all required final adjustments have been made. The certification shall also include the date of final/acceptance field testing and a listing of all persons present during testing.

- I. Additional information relative to services by a manufacturer's representative may be contained in the Contract Documents including the Special Conditions.

1.15 OWNER TRAINING BASIC REQUIREMENTS

- A. The Contractor shall submit to the Engineer for the Owner's review and approval a training outline or lesson plan clearly indicating the subject matter and depth of detail proposed to be presented at the training session. This material shall be sent to the Engineer not less than 20 calendar days in advance of training. No training shall be performed in the absence of a previously reviewed lesson plan or outline. Prior to scheduling training sessions, any and all equipment manuals, as specified elsewhere, shall be submitted and reviewed by the Owner. No training shall be performed in the absence of previously reviewed equipment manuals. Training which is provided that does not follow reviewed lesson plans or outlines, or where the manufacturer's representative is not properly prepared or qualified shall not be accepted by the Owner as meeting the training requirements.

B. Training shall be scheduled at least two (2) weeks in advance so as to provide the Owner an opportunity to adjust work schedules to permit all appropriate personnel to attend. If applicable to the particular training to be provided, the Owner can make its training room facilities available.

C. A written report by the instructor covering instructions given shall be sent to the Owner, Engineer and Contractor(s) within 14 calendar days of completion of instruction.

B. Instructors shall be thoroughly familiar with all parts of the installation and shall be trained in operating theory as well as practical operation and maintenance work.

1.16 EQUIPMENT MANUALS

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- A. The Contractor shall furnish and deliver to the Engineer three (3) complete sets of information required for the proper operation, maintenance and repair of equipment supplied for this project. These equipment manuals shall be delivered prior to the 60 percent completion point of the project.

B. All instructions shall be bound into a series of identical heavy-duty, three-ring binders. Binder covers shall be identified with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", "PROJECT NAME". Information shall be organized by sections, each section covering a specific equipment item. Sections shall be listed in a Table of Contents at the front of each volume. Each section shall contain the following as a minimum:

1. Title page identifying equipment item, manufacturer, model number/name, serial numbers, project title, owner, location, and date of issuance.
 2. Section Table of Contents.
 3. Written instructions, including technical bulletins and functional diagrams.
 4. Complete parts lists and parts diagrams for all equipment, including motors and drive units, showing manufacturer's identification numbers for each part.
 5. Copies of shop drawings, where required, to adequately describe interrelation of components within a system.
 6. Complete electrical and control schematics with labeled terminations.
 7. List of special tools required for operation and maintenance.
 8. List of spare parts supplied with the equipment, identified by manufacturer's part numbers.
 9. Source of replacement parts and address and telephone number of the manufacturer's service representative.
 10. Recommended installation arrangement, locations, wiring, criteria, procedure, etc.
 11. Copy of manufacturer's warranties and certificates.
 12. Normal and emergency operating instructions, procedures, and sequences for each possible mode of operation (as applicable).
 13. Normal and emergency operating instructions, procedures, and sequences for each possible mode of operation.
 14. Troubleshooting procedures (as applicable).
- C. Separate sections shall be clearly marked with dividers. Folded drawings or small items shall be provided in heavy-duty, three-ring plastic pockets.
- D. Information not applicable to a specific piece of equipment installed on this project shall be removed from or crossed off on the submission.
- E. Written operation and maintenance instructions shall be required on equipment where called for in other Technical Specification Sections of the specifications.
- F. At the end of each section, the Contractor shall include a

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detailed maintenance and lubrication schedule for equipment covered in the section. Schedule shall include the following, as a minimum, for each equipment item:

1. List and frequency of maintenance activities, other than lubrication.
 2. Lubrication frequency and application points.
 3. Lubricant type (weight or grade and recommended manufacturers) and method of application.
 4. Motors and drive units furnished as part of the equipment shall be included in the schedule.
- G. Information not applicable to specific piece of equipment shall be included in a separate section. This shall include the following:
1. Shop drawings and product data.
 2. Air and water balance reports.
 3. Certificates.
 4. Photocopies of warranties.
 5. Valve charts
 6. Tubing identification schedule
- H. Providing complete equipment manuals, as specified here, for all equipment, devices or materials furnished under the Contract is a part of the work of this Contract and the Contractor is wholly responsible for obtaining acceptable equipment manuals from equipment manufacturers.
- I. Two copies of each equipment manual shall be submitted to the Engineer by the Contractor for Engineer's transmittal to the Owner for review. At the completion of the work, the Engineer will submit one copy of the Owner-accepted equipment manual to the Owner.
- J. Each copy of each equipment manual must be complete, as specified herein, and must be easily legible and clearly reproduced.
- K. Over and above and in addition to any other retainage provided for in the Contract, 5 percent of the value of equipment, devices, or materials requiring equipment manuals shall be retained from payments otherwise due the Contractor until acceptable equipment manuals for the applicable items are received by the Owner. For the purposes of applying this retainage, the value of equipment, devices, or material shall be determined from actual invoices presented by the Contractor to the Engineer. In the absence of actual invoices, by an estimate of fair and reasonable value will be determined by the Engineer.
- L. The Contractor is advised to include these requirements and applicable provisions of this section in all applicable purchase orders and to provide a similar retainage provision in all applicable purchase orders or purchase agreements.

1.18 FAILURE OF EQUIPMENT TO PERFORM

- A. Any defects in the equipment, or failure to meet guarantee or performance requirements of the specifications shall be promptly corrected by the Contractor by replacement or otherwise.
- B. If the Contractor fails to make these corrections, or if the

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improved equipment fails to meet the guarantees or specified requirements, the Owner, notwithstanding his having made partial payment for work and materials which have entered into the manufacture of said equipment, may reject said equipment and order the Contractor to remove it from the premises at the Contractor's expense.

- C. Performance Tests. If it is the opinion of the Engineer that reasonable doubt exists that equipment installed in this contract still within the guarantee period fails to meet the performance requirements for the purpose for which it is intended, the Owner reserves the right for the Owner and/or Engineer to test such equipment to determine whether it is functioning properly and performing at required capacity. If such tests show proper functioning, the cost of the test will be paid by the Owner. If such tests indicate a deficiency in equipment capacity or performance, the Contractor shall pay the cost of the test and shall also correct any deficiencies shown by the test - to the full satisfaction of the Owner and the Engineer.
- #### 1.19 GUARANTEE
- A. All equipment shall be guaranteed in accordance with the General Conditions. Guarantee requirements may be added to or modified in the detailed sections for a certain piece of equipment.
- B. By supplying a product under the contract, the manufacturer/supplier and Contractor jointly agree that all manufacturer's warranties, expressed or implied, pass through the Contractor to Owner. This warranty obligation starts on the date of the Substantial Completion and survives any inspection by, delivery to, acceptance by or payment by the Owner or Contractor for the goods furnished by the manufacturer. Further, this warrants that the equipment designed, manufactured and/or used meets all applicable federal, state and local laws, rules and regulations, including applicable OSHA standards. This requirement does not change or limit the requirements for performance affidavits previously described in Part 2.

1.20 GENERAL WORK SCHEDULE

- A. A general work schedule which serves to summarize some requirements of this section and other detailed equipment Sections is contained in the table which follows this page.

1.21 COORDINATION

- A. Coordinate installation of required supporting devices and set sleeves in poured-in-place concrete and other structural components as they are constructed.
- B. Coordinate requirements for access panels and doors for mechanical items requiring access that are concealed behind finished surfaces.

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- C. Generally the design has been based on standard and/or single manufacturer's equipment and devices. Prior to releasing equipment for fabrication, the Contractor shall confirm and coordinate for the specific items being provided. Any changes required due to substitution of another manufacturer's equipment. Those include any electrical, structural, piping, connection, ductwork, supports, re-coordination devices, etc. All costs associated with the substitution are the responsibility of the contractor.
- D. Coordination drawings shall be created for all trades. Coordination drawings shall indicate all service, maintenances and code required clearances for the mechanical, electrical and all associated trade work. The drawings are required to be signed off by each trade as "complete and correct" and submitted to the Engineer prior to releasing, fabricating or providing any materials or equipment. Any work performed as purchases prior to this being done is at the sole risk and expense of the Contractor.

PART 2 PRODUCTS

2.1 This section not used

PART 3 EXECUTION

3.1 EQUIPMENT INSTALLATION

- A. The Contractor shall obtain written installation manuals from the approved equipment manufacturer prior to installation. Equipment shall be installed strictly in accordance with recommendations of the manufacturer. A copy of all installation instructions shall be furnished to the Engineer's field representative not less than one week prior to scheduled installation. The Contractor shall have on hand sufficient and proper construction equipment and necessary accessories of ample capacity to facilitate the work and to handle any emergencies.
- B. To minimize field erection and installation problems, mechanical units shall be factory-assembled where size and weight permit.
- C. Equipment shall be erected in a neat and workmanlike manner on the foundations at the locations and elevations shown on the Contract Drawings.
- D. For equipment such as pumps, which require field alignment and connections, the Contractor shall provide the services of a qualified mechanic, millwright or machinist, to align the pump and motor prior to making piping connections or anchoring the pump base.
- E. All field wiring, conduit, etc., required to interconnect equipment furnished by all Contractors shall be furnished and installed by the Electrical Contractor unless otherwise noted.

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3.2 ACCESSIBILITY

- A. Install all work so that parts requiring periodic inspection, operation, maintenance, and repair are readily accessible. Equipment which will be installed and concealed behind a finished surface shall be made accessible by the installation of suitable access doors. Include costs for furnishing doors and for installation by the General Contractor.
- B. Coordinate pipe spaces, chasos, slots, and openings in building structure during construction, to allow for mechanical installations.
- C. Install equipment to allow maximum possible headroom unless specific mounting heights are indicated.
- D. Install equipment level and plumb, parallel and perpendicular to other building systems and components in exposed interior spaces, unless otherwise indicated.
- E. Install mechanical equipment to facilitate service, maintenance, and repair or replacement of components. Connect equipment for ease of disconnecting, with minimum interference to other installations. Extend grease fittings to accessible locations.

3.3 ANCHORING AND SUPPORT

- A. The Contractor shall furnish, install and protect all necessary anchor and attachment bolts, bearing plates, guides and all other appurtenances necessary for installation of the equipment/devices included with the specified equipment. The equipment manufacturer shall provide suitable working drawings for equipment installation and the Contractor shall use suitable templates as required.
- B. Anchor bolts shall be of size and strength suitable for the purpose intended, and shall be in accordance with Technical Specification Section entitled "Miscellaneous Metals", the detailed equipment specifications and the Contract Drawings. Unless otherwise specified, all anchor bolts shall be Type 316 stainless steel. Unless otherwise specified, the Contractor furnishing equipment shall also furnish anchors and templates to the General Contractor.
- C. The General Contractor shall provide, unless otherwise specified in the Contract Documents, a concrete equipment pad or 4-inch high housekeeping pad, of Class "A" reinforced concrete, for all mechanical, heating and ventilating, plumbing and electrical equipment. The General Contractor shall coordinate with the other prime contractors before pad placement to confirm final dimensions, location and anchor requirements.
- D. All floor-mounted items not requiring equipment pads shall have housekeeping pads.

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- B. Pipe sleeves or other means of adjusting anchor bolts shall be provided where indicated or needed. Equipment shall be leveled by first using sitting nuts on the anchor bolts and then filling the space between the equipment base and concrete pedestal with grout. Grout shall be non-shrink grout as described in the section entitled "Concrete".
- F. Where equipment bases (e.g., pump supports) are installed with grout holes, subsequent to field testing those bases shall be totally filled with grout.
- G. Construct concrete bases of dimensions indicated, but not less than 4 inches larger in both directions than supported unit.
- H. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch centers around the full perimeter of the base.
- I. Install epoxy-coated anchor bolts for supported equipment that extend through concrete base, and anchor into structural concrete floor.
- J. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.4 PAINTING OF NEW EQUIPMENT:

- A. New equipment painting shall be factory applied or shop applied, and shall be as specified herein, and provided under each individual section.
- B. Shop Painting Systems for Metal Surfaces:
 1. Apply coatings to clean dry surfaces. Clean, pretreat, prime and paint metal surfaces; except aluminum surfaces need not be painted. Clean the surfaces to remove dust, dirt, rust, oil and grease by wire brushing and solvent degreasing prior to application of paint, except metal surfaces subject to temperatures in excess of 50 degrees C 120 degrees F shall be cleaned to bare metal.
 2. Where more than one coat of paint is specified, apply the second coat after the preceding coat is thoroughly dry. Lightly sand damaged painting and retouch before applying the succeeding coat. Color of finish coat shall be aluminum or light grey.
 3. Temperatures Less Than 50 Degrees C 120 Degrees F: Immediately after cleaning, the metal surfaces shall receive one coat of pretreatment primer applied to a minimum dry film thickness of 0.0076 mm 0.3 mil, one coat of primer applied to a minimum dry film thickness of 0.0255 mm one mil; and two coats of enamel applied to a minimum dry film thickness of 0.0255 mm one mil per coat.

- 4. Temperatures Between 50 and 205 Degrees C 120 and 400 Degrees F: Metal surfaces subject to temperatures between 50 and 205 degrees C 120 and 400 degrees F shall receive two coats of 205 degrees C 400 degrees F heat-resisting enamel applied to a total minimum thickness of 0.05 mm 2 mils.
- 5. Temperatures Greater Than 205 Degrees C 400 Degrees F: Metal surfaces subject to temperatures greater than 205 degrees C 400 degrees F shall receive two coats of 315 degrees C 600 degrees F heat-resisting paint applied to a total minimum dry film thickness of 0.05 mm 2 mils.

3.5 EQUIPMENT CLEANING

- A. Completely clean to new condition (inside and outside) all equipment installed by him or her. This Contractor shall also be responsible for cleaning the equipment and surfaces of work installed by others when soiled, to like new condition. Any equipment or surfaces of work installed by others which is damaged by this Contractor shall be completely repaired or replaced at this Contractor's expense.

3.6 SHOP TESTING

- A. All equipment so noted in the General Equipment Schedule in this Section or in other Technical Specification Sections, shall be tested in the shop of the manufacturer in a manner which shall conclusively prove that its characteristics, including any specified pressure, duty capacity, rating, efficiency, performance, function, or other special requirements, comply fully with the requirements of the Contract Documents and that it will operate in the manner specified. When specifically required in the detailed equipment specifications, arrangements shall be made for the Engineer to witness performance tests in the manufacturer's shop.
- B. Four (4) certified copies of the manufacturer's actual test data and interpreted results thereof shall be forwarded to the Engineer for review.

3.7 FIELD TESTING

- A. Field testing of equipment shall be performed as specified herein and/or as specially required by other Technical Specification Sections.
- B. The Contractor shall be solely responsible for the proper operation of all equipment during testing and instruction periods and shall neither have nor make any claim for damage which may occur to equipment prior to Substantial Completion of the Contract.

- C. Preliminary Field Testing: The Contractor shall furnish all labor, materials, instruments, gauges, etc., as required, and shall perform preliminary field tests on equipment as soon as conditions will allow. If the preliminary field tests disclose any equipment furnished under this Contract which does not comply with the requirements of the Contract Documents, the Contractor shall, prior to the final acceptance tests, make all changes, adjustments and replacements required.
- D. Final/Acceptance Testing: Prior to start-up, all equipment and appurtenances installed under this Contract shall be subjected to final/acceptance tests as specified or required to prove compliance with the Contract Documents. The Contractor shall furnish labor, fuel, lubricants, energy, water and all other materials, equipment and instruments necessary for all acceptance tests. Tests shall be supervised by the manufacturer's representative in accordance with Part 13 of this Section.
- E. At minimum, final/acceptance testing shall include:
 1. Verification that equipment has been properly aligned, adjusted and lubricated.
 2. Verification that equipment shall meet all specified performance requirements and shall perform without any unusual noise, vibration or other signs of possible malfunction.
 3. Verification that all controls (both electrical and mechanical) are properly connected and operating.
 4. Verification that each mode and/or function is properly performing for multi-mode and/or multi-operation equipment.
 5. Motor field testing where required.
- F. Unless specifically allowed by the Owner or specified elsewhere in the Contract Documents, all field tests of liquid handling equipment shall be conducted using water from the public water supply. Costs associated with supplying this water shall be borne by the General Contractor.

3.8 INSTALLATION OF FILTERS

- A. All air equipment with filters shall be supplied with two sets of filters except as noted below.
 1. Active carbon filters.
 2. Final filters.
- B. Contractor shall install the first set of filters in air moving equipment to protect the air handler from the construction environment.
 1. Units with provisions for both pre-filters and final filters shall initially have the same quality filter installed in the final filter location as the pre-filter.

- C. Coordinate with the Owner's representative regarding the timing for installing active carbon filters.
- D. The contractor shall install the second set, the owner's set, of filters just prior to the balancing contractor starting their work.

PART 4 PAYMENT

Payment for this section will be included in all Base Bid and Alternate Work Items related to GENERAL EQUIPMENT REQUIREMENTS.

GENERAL EQUIPMENT SCHEDULE
DUANESBURG, NY - MARIAVILLE WWTP ULTRAVIOLET DISINFECTION
Contracts TD1-G-21

REQUIRED ITEMS AND REFERENCED CLAUSES

Technical Specification Section	Equipment Item	Performance Affidavit (Part 2)	Shop Tests (Part 11)	Field Tests (Part 12)	Certification (Part 13)	Equipment Manuals (Part 14)	Services of Manufacturers Rep.	
							Inspection/In-Station and Station	Final Acceptance Testing
11262	UV System	Yes	No	Yes	Yes	Yes	8	8
16400	Electrical	No	No	Yes	Yes	Yes	As Req'd	

¹ Analytical testing of General Contractor taken samples conducted in an ELAP certified facility. See Specification 11262.

SECTION 15050
PROCESS PIPING

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work Included

1. The Contractor shall furnish all labor, materials, equipment, tools, and services required for the furnishing and installation of all inside process piping, and such work shall be accomplished in compliance with the following specifications.
 2. Piping shall be furnished and installed of the material, sizes, classes, and at the locations shown on the Contact Drawings and/or designated in these Specifications. Piping shall include all fittings, adapter pieces, couplings, bolts, gaskets, sleeves, hangers, supports, and other associated appurtenances for required connections to equipment, valves or tanks.
- B. Related Work Specified Elsewhere
1. Section Pertinent to the Type of Pipe to be Installed
 2. Pipe Hangers and Supports
 3. Wall Castings and Sleeves
 4. Flexible Pipe Couplings
 5. Painting
 6. Mechanical Identification

1.02 QUALITY ASSURANCE

A. Standards

1. All references to any ANSI, AWWA OR ASTM standard implies use of the most recent revision of said standard.

B. Compatibility of Piping

1. Where process piping assemblies connect to equipment, valves or tanks, such piping shall be rendered compatible with the approved equipment, valve or tank installed and any necessary modifications to the original piping shall be shown in scaled layout or appropriate shop drawings submitted to the Engineer.

C. Location and Support

1. Piping assemblies under 4 inch size shall be essentially supported on walls and ceilings, unless otherwise shown on the Contract Drawings. Such piping shall be kept clear of openings and positioned above "head-room" space and run in neat clusters, plumb and level along walls, and parallel to overhead beams, unless shown otherwise.

D. Interrelationship of Related Specifications

1. The requirements of this general specification section shall apply to each technical detailed specification section listed.

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1.03 SUBMITTALS

A. Shop Drawings

1. Shop drawings for inside process piping shall be prepared and submitted in accordance with the Specifications. Shop drawings shall show completed piping layout, including materials, sizes, classes, locations, necessary dimensions, supports, hanger details, and shall be submitted prior to obtaining any equipment in connection with this section.

PART 2 - PRODUCTS

2.01 MATERIAL

A. Outside Coatings

1. All exposed steel, cast or ductile iron piping shall receive a rust inhibitive shop primer plus cover coats in accordance with the section entitled "Painting". Surfaces to be painted shall be prepared in a workmanlike manner with the objective of obtaining a smooth, clean and dry surface. Rust, dust, scale, oil, grease, as well as all other loose or foreign substances, including weld splatters, fins, and burrs shall be removed by cleaning, wire brushing, chipping, or sandblasting. To prevent new rusting, cleaned surfaces shall be painted immediately after cleaning. Surfaces located within 2 inches of joints which are to be field welded shall be left unpainted.

B. Wall Castings/Sleeves

1. All piping passing through walls and floors shall be installed in sleeves accurately located before concrete is poured, or placed in position during construction of masonry walls. Sleeves passing through floors shall extend from the bottom of the floor to a point 3 inches above the finished floor, unless shown otherwise. Water-stop flanges are required on all sleeves located on floors or walls which are continually wet or under hydrostatic pressure on one or both sides of the floor or wall.
2. The annular space between the installed piping and sleeve shall be completely sealed against a maximum hydrostatic (or gas) pressure of 20 psig with a modular mechanical type seal consisting of interlocking synthetic rubber links connected by stainless steel bolts and nuts with pressure plates under each end. Tightening the bolts shall compress the neoprene links causing them to expand and form a continuous, air-tight, water-tight seal between pipe and sleeve. The seal shall be "Link-Seal", as manufactured by GPT Corporation, Wheat Ridge, Colorado; or approved equal. Seal type, size, and installation thereof shall be in strict accordance with the manufacturer's recommendations.

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3. In general, sleeves installed in walls, floors or roofs against one side of which will develop a hydrostatic (or gas) pressure, or through which leakage of liquid will occur, shall be so sealed. Refer to standard details as shown on the Contract Drawings for wall, floor, and deck sleeve details. Refer to the section entitled "Wall Castings and Sleeves" and the Contract drawings.

C. Couplings and Adapters

1. Couplings and/or adapters shall be provided by the Contractor for the alignment of similar types of pipe or connecting dissimilar pipe materials as required in accordance with the detail shown on the Contract Drawings.
2. Unions shall be provided adjacent to all pumps, tanks, valves, and other pieces of equipment where soldered or screwed joints are utilized.
3. Provide couplings and flanged adapters as required and in accordance with this clause. Where couplings and adapters are to be used, they shall be installed in complete accordance with the manufacturer's recommendations.
4. Couplings for welded steel pipe shall be Dresser Style 38, Rockwell 411, or equal. See Section entitled "Flexible Pipe Couplings" for additional information and requirements.

D. Expansion Joints

1. Expansion joints shall be installed where indicated on the Drawings and as specified herein. Expansion joints shall be installed at all pump discharges and on all piping and conduit wherever such piping crosses a structural expansion joint.
2. Expansion joints shall be capable of working pressures of 150 psig minimum. The expansion joint shall be flanged with flanges drilled to match the attached piping. The flanges shall be constructed of Zinc plated steel. The expansion joint body shall be neoprene tube with neoprene cover reinforced with nylon cord. The expansion joints shall be style 1010 as manufactured by General Rubber Corp., style 8100 as manufactured by Garlock Corp., or equal.
3. Contractor shall provide permanent restraints for all expansion joints installed on piping. Restraints shall keep pipe from separating when subjected to pressures up to 175 psig. Permanent restraints shall consist of tie rods and straps or welded clip angles as shown on the Contract Drawings. Permanent restraints shall also be furnished and installed on piping at adjacent pipe supports to prevent any longitudinal movement.

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E. Pipe Insulation

1. The Contractor shall furnish and install pipe insulation on the pipe lines as shown on the Contract Drawings, as required by the Pipe Schedule, or as required by the Specifications. All insulating and covering shall be done in accordance with the manufacturer's recommendations. Do not insulate pipes until they have been tested and accepted.
2. See Section entitled "Mechanical Insulation" for additional information and requirements.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. All piping shall be installed by skilled workers and in accordance with the best standard practice for piping installation. Proper tools and appliances for the safe and convenient handling and installing of the pipe and fittings shall be used. Great care shall be taken to prevent any pipe coating from being damaged on the inside of the pipe and fittings. All pieces shall be carefully examined for defects and no piece shall be installed which is known to be defective. If any defective pieces should be discovered after having been installed, they shall be removed and replaced with a sound one in a satisfactory manner by the Contractor and at his own expense. Pipe and fittings shall be thoroughly cleaned before they are installed and shall be kept clean until they are accepted in the complete work. All piping connections to equipment or tanks shall be provided with unions or coupling flanges located so that piping may be readily dismantled from the equipment or tank. All piping shall be installed in such a manner that it will be free to expand and contract without injury to itself or surrounding structures or equipment. All piping shall be erected to accurate lines and grades and shall be supported and braced against movement temporary or permanent.

3.02 TESTING

A. General

1. All piping shall be tested in accordance with the procedures outlined below as required in the Piping Schedule. Where a section of pipeline has multiple uses, the pipe shall be tested at the high test pressure required. Pressure testing shall be considered acceptable if specified test pressures are maintained for required test durations without a pressure drop.
2. The Contractor shall furnish all equipment, labor, testing materials, clean water, and shall perform the tests

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described herein. All water for tests shall be furnished and disposed of by the Contractor at his expense. The source and quantity of water to be used in testing the lines shall be acceptable to the Owners.

3. The Contractor shall make all necessary repairs or replacement of defective pipe as disclosed by testing and shall repeat the test until the requirements described below are met.

B. Hydrostatic Testing Procedures

1. Procedure A shall consist of a two-hour test at 150 psi.
2. Procedure B shall consist of a 30-minute test at 75 psi.
3. When no test method for inside process pressure piping is specified in the Pipe Schedule, the following procedure shall be used. All newly installed pipe or any valved section thereof shall be subjected to a hydrostatic pressure 50% in excess of the working pressure at the point of testing, but in no case less than 75 psi in any section of the pipe being tested, for a period of one-hour.
4. A leakage test shall be conducted concurrently with the pressure test. The section tested shall be drip-tight with no signs of leakage.

3-03-STERILIZATION

- A. ~~All pipe and fittings connected to and forming part of, or connecting to an existing potable water supply system shall be sterilized. Sterilization shall be accomplished after the pipe has passed the hydrostatic tests and shall be in accordance with AWWA Specification C601.~~
- B. ~~The continuous feed method shall be used for chlorine application.~~
- C. ~~All new piping shall be filled with not less than 50, no more than 75 parts per million (ppm) of available chlorine and held in contact for not less than 24 hours. During this time, all valves in the section treated shall be operated in order to disinfect the appurtenances. Final tests after 24 hours contact time shall show a minimum residual chlorine content of 25 ppm in all parts of the system. Sterilization tests shall be repeated as often as necessary until the minimum residual chlorine content of 25 ppm has been reached.~~
- D. ~~All chlorine introduced into the system shall be totally dissolved. The introduction of solid hypochlorite directly into the system is prohibited. The chlorine solution shall be thoroughly flushed out prior to placing the new pipe in service. The Contractor shall dispose of spent chlorine solution in such a way as not to be detrimental to animal, plant or fish life.~~

3.04 PIPE SCHEDULE
FOLLOWS THIS SECTION

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DUANESBURG, NY WWTP PIPE SCHEDULE							
Identit y	Siz e	Type of Pipe	Schedul e or Class	Joints	Pressure Testing Procedur e	Pain t	Remark s
Sanitar y Effluen t	6"- 8"	Ductil e Iron	Class 53	Welded/Victaul ic	NA	Yes	Cement lined

PART 4 PAYMENT

Payment for this section will be included in all Base Bid and Bid Alternate Work Items related to PROCESS PIPING.

END OF SECTION

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SECTION 15052
EXPOSED PIPING, NON VICTAULIC

PART 1 GENERAL

1.1 DESCRIPTION

A. Scope:

1. Contractor shall provide All labor, materials, equipment and incidentals as shown, specified and required to install and test all exposed piping, fittings, and specials. The Work includes, but is not limited to, the following:
 - a. All sizes of exposed piping, except those specified under other Sections or other contracts.
 - b. Piping embedded in concrete within a structure or foundation will be considered as exposed and included herein.
 - c. Supports, restraints, thrust blocks and other anchors.
 - d. Testing.
 - e. Cleaning and disinfecting.
 - f. Installation of all jointing and gasketing materials, specials, flexible couplings, mechanical couplings, harnessed and flanged adapters, sleeves, tie rods, and all other work required to complete the exposed piping installation.
 - g. Incorporation of valves, meters and special items shown or specified into the piping systems as required and as specified in the appropriate Division 15 Sections.
 - h. Unless otherwise specifically shown, specified, or included under other Sections, all exposed piping Work required, beginning at the outside face of structures or structure foundation and extending into the structure.

B. Area of Construction

1. Will center on Non-Victaulic piping and fittings used in the installation of piping to and from the UV Disinfection Unit.
2. Inlet and discharge of the UV Disinfection unit are 8" flange fittings, 150 lb flange, 8 bolt 5/8" Ø.
3. Flange fittings to be used until joining to Flange to Victaulic adapter.

C. Coordination:

1. Review installation procedures under other Sections and other contracts and coordinate with the Work that is related to this Section.
2. Layout work with respect to the provided construction drawings, equipment on site, field conditions, Operator input.

1.2 QUALITY ASSURANCE

A. Requirements of Regulatory Agencies:

1. Comply with requirements of UL, FM and other jurisdictional authorities, where applicable.

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2. Refer to the General and Supplementary Conditions regarding requirements for this Project.

B. Reference Standards: Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified:

1. ANSI B1.6.3, Malleable-Iron Threaded Fittings, Classes 150 and 300.
2. ANSI B1.6.4, Cast Iron Threaded Fittings, Classes 125 and 250.
3. ANSI B1.6.5, Pipe Flanges and Flanged Fittings, Steel Nickel Alloy and Other Special Alloys.
4. ANSI B1.6.9, Factory-Made Wrought Steel Butt Welding Fittings.
5. ANSI B1.6.11, Forged Steel Fittings, Socket-Welding and Threaded.
6. ANSI B31.1, Power Piping.
7. AWWA C111, Rubber Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
8. AWWA C600, Installation of Ductile Iron Water Mains and Their Appurtenances.
9. AWWA C606, Grooved and Shouldered Type Joints.
10. AWWA C651, Disinfecting Water Mains.
11. AWWA M23, PVC Piping.
12. AWS D1.1, Structural Welding Code.
13. AWS D10.9, Standard for Qualification of Welding Procedures and Welders for Piping and Tubing.
14. ASME Boiler and Pressure Vessel Code.
15. NFPA 13, Installation of Sprinkler Systems.
16. NFPA 14, Standpipe and Hose Systems.
17. NFPA 54, National Fuel Gas Code.

1.3 SUBMITTALS

A. Shop Drawings: submit for approval the following:

1. Detailed drawings in plan and profile, and laying schedules.
2. Details of piping, valves, supports, accessories, specials, joints, harnessing, and connections to existing pipes and structures.

B. Tests: Submit description of proposed testing methods, procedures and apparatus. Submit copies of test report for each test.

C. Certificates: submit certificates of compliance with referenced standards.

D. Record Drawings:

1. Submit record drawings prior to the time of Substantial Completion.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to the site to insure uninterrupted progress of the Work.
- B. Handle all pipe, fittings and accessories carefully with approved handling devices. Do not drop or roll pipe off trucks. Do not otherwise drop, roll or skid piping.

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- C. Store pipes and fittings on heavy wood blocking or platforms so they are not in contact with the ground.
D. Unload pipe, fittings and specials opposite to or as close to the place where they are to be installed as is practical to avoid unnecessary handling. Keep pipe interiors completely free from dirt and foreign matter.
E. Inspect delivered pipe for cracked, gouged, chipped, dented or other damaged material and immediately remove from site.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Required pipe materials are listed in the Piping Schedule. Refer to applicable Sections for material specifications.

B. General:

1. Marking Piping:

- a. Clearly mark each piece of pipe or fitting with a designation conforming to that shown on the Shop Drawings.
b. Cast or paint material, type and pressure designation on each piece of pipe or fitting 4 inches in diameter and larger.
c. Pipe and fittings smaller than 4 inches in diameter shall be clearly marked by manufacturer as to material, type and rating.

- C. Pipe Identification Markers and Arrows: Refer to Section 09900, Painting.

PART 3 EXECUTION

3.1 INSTALLATION

A. General:

1. Install piping as shown, specified and as recommended by the manufacturer.
2. If there is a conflict between manufacturer's recommendations and the Drawings or Specifications request instructions from Engineer before proceeding.

B. Manufacturer's Installation Specialist:

1. Provide the services of a competent installation specialist of the pipe manufacturer when pipe installation begins for the following:
a. Thermoplastic pipe.
2. Retain installation specialist at the site for a minimum of 5 days or until competency of the pipe installation crew has been satisfactorily demonstrated.

C. Piping Installation:

1. Install straight runs true to line and elevation.
2. Install vertical pipe truly plumb in all directions.
3. Install piping parallel or perpendicular to building walls. Piping at angles and 45 degree runs across corners will not be accepted unless specifically shown or approved.
4. Install small diameter piping generally as shown when specific locations and elevations are not indicated. Locate such piping as required to avoid ducts, equipment, beams, and other obstructions.

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5. Install piping so as to leave all corridors, walkways, work areas, and like spaces unobstructed. Unless otherwise approved, provide a minimum headroom clearance under all piping of 7 feet 6 inches.
6. Protect and keep clean water pipe interiors, fittings and valves.
7. Provide temporary caps or plugs over all pipe openings at the end of each days work, and when otherwise required or directed by Engineer.
8. Cutting: Cut pipe from measurements taken at site, not from Drawings.

9. Install dielectric unions wherever dissimilar metals are connected except for bronze or brass valves in ferrous piping.
10. Provide a union downstream of each valve with screwed connections.

11. Provide screwed or flanged unions at each piece of equipment, where shown, and where necessary to install or dismantle piping.
12. Additional Requirements for Thermoplastic Piping:

- a. Support all valves independently of the piping system.
b. Utilize wide band supports as recommended by manufacturer and approved by Engineer to minimize localized stresses.
c. Provide piping passing through walls with a sleeve of wearing material to prevent abrasion damage to piping.
d. When anchors are required at locations other than equipment or tanks they should be placed at elbows, valve locations and at bonds in pipe line.
e. Spacing of supports shall be in accordance with the manufacturer's published recommendations at the maximum design operating temperature of the pipe.
f. Use "U" clamps with wide band circumferential contact.
g. Use guides on long runs of piping to maintain alignment and reduce chance of elastic failure of pipe. Space guides as recommended by manufacturer.
h. Use bellows with low axial force to take up pipe expansion. Provide anchors to restrain the expansion joint. Use of bellows joints shall be kept to a minimum. Flexible connectors may be used to absorb thermal movement when approved by Engineer.
i. Do not install pipe when temperature is less than 60°F.

D. Joints:

1. General:

- a. Make joints in accordance with the pipe manufacturer's recommendations and the requirements below.
b. Cut piping accurately and squarely and install without forcing or springing.
c. Ream out all pipes and tubing to full inside diameter after cutting. Remove all sharp edges on end cuts.
d. Remove all cuttings and foreign matter from the inside of pipe and tubing before installation.

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Thoroughly clean all pipe, fittings, valves, specials, and accessories before installing.

2. Flanged Joints:

- a. Assemble flanged joints using 1/8-inch ring-type gaskets for raised face flanges. Use full face gaskets for flat face flanges unless otherwise approved by Engineer. Gaskets shall be suitable for the service intended in accordance with the manufacturer's ratings and instructions. Gaskets shall be properly centered. (USA Blue Book Red Rubber Gaskets - 8" or similar)
b. Bolts shall be tightened in a sequence which will insure equal distribution of bolt loads.
c. The length of bolts shall be uniform, and they shall not project beyond the nut more than 1/4 inch or fall short of the nut when fully taken up. The ends of bolts shall be machine cut so as to be neatly rounded. No washers shall be used.
d. Bolt threads and gasket faces for flanged joints shall be lubricated prior to assembly.
e. Alternately tighten bolts 180 degrees apart to compress the gasket evenly.

E. Installing Valves and Accessories:

1. Provide supports for large valves, flow meters and other heavy items as shown or required.
2. Install floor stands as shown and as recommended by the manufacturer.
3. Provide lateral restraints for extension bonnets and extension stems as shown and as recommended by the manufacturer.
4. Provide steel sleeves where operating stems pass through floor. Extend sleeves 2 inches above floor.
5. Position valve operators as shown. When the position is not shown, install the valve so that it can be conveniently operated and as approved by Engineer. Avoid placing operators at angles to the floors or walls.
6. Position flow measuring devices in pipe lines so that they have the amount of straight upstream and down-stream runs recommended by the manufacturer, unless specific location dimensions are shown. Position swing check valves so that they do not conflict with the discs of butterfly valves.

3.3 PAINTING

- A. Field painting is under Section 09900.

3.4 TESTING OF PIPING

A. General:

1. Test all piping as specified below unless otherwise authorized by Engineer.
2. Notify Engineer 48 hours in advance of testing.
3. Provide all testing apparatus including pumps, hoses, gages, and fittings.

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4. Pipelines shall hold the specified test pressure for two hours.
5. Repair and retest pipelines which fail to hold specified test pressures or which exceed the allowable leakage rate.
6. Test pressures required are at the lowest elevation of the pipeline section being tested, unless otherwise specified.
7. Follow special test procedures below for gaseous chemical and liquid chlorine lines.
8. Conduct all tests in the presence of the Engineer. Repeat tests in the presence of local authorities having jurisdiction, if required.

B. Schedule of Pipeline Tests:

1. ~~Test piping at the test pressure listed in the Proposed Piping Schedule.~~
2. For piping not included in the Schedule, the Engineer will notify Contractor in writing of the test pressure to be utilized.

C. ~~Pressure Test Procedure:~~

1. ~~Insure that all supports and restraint protection are securely in place.~~
2. ~~Fill section to be tested slowly with water and equal all air. Install cocks, if necessary, to ensure removal of air.~~
3. ~~Test only one section of pipe at a time.~~
4. ~~Apply specified test pressure required for two hours and observe pressure gage. Check carefully for leaks while test pressure is being maintained.~~

D. Leakage Testing:

1. Conduct leakage test after satisfactory completion of pressure test.
2. Allow concrete pipe to stand full of water at least 12 hours prior to starting leakage test.
3. Allowable Leakage Rates (gallons per hour per 1000 foot per inch diameter):
a. Concrete Pressure Pipe: 0.2.
b. Copper, Steel, Ductile Iron, Thermoplastic, and all Other Piping: 0.0.
c. Ductile Iron Pipe with Mechanical Joints: 0.1.
4. Leakage Test Procedure:
a. Examine exposed pipe, joints, fittings and valves. Repair visible leakage or replace the defective pipe, fitting or valve.
b. Refill the line under test to reach the required test pressure.
c. Provide a test container filled with a known quantity of water at the start of the test. Attach the test pump suction to the test container.
d. Pump water from the test container into the line with the test pump to hold the specified test pressure for the test period. Water remaining in the container

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- shall be measured and the amount used during the test shall be recorded on the test report.
- e. Perform all repair, replacement, and retesting required because of failure to meet testing requirements.
 - f. Leakage shall be less than rate specified above.

3.5 CLEANING AND DISINFECTION

- A. Cleaning:
1. Thoroughly clean all piping and flush prior to placing in service in a manner approved by Engineer.
 2. Piping 24 inches in diameter and larger shall be inspected from inside and all debris, dirt and foreign matter removed.
 3. If piping which requires disinfection has not been kept clean during storage or installation, Contractor shall swab each section individually with a five percent hypochlorite solution, to ensure clean piping.

3.6 IDENTIFICATION OF PIPING

- A. Pipe Identification Markers and Arrows:
1. Product and Manufacturer: Provide one of the following:
 - a. Brady B-500 vinyl cloth self sticking arrows and markers except on insulated pipe. Brady B-350 perma-code film self sticking arrows and markers on pipe insulation.
 - b. Equivalent products as made by Seton Name Plate Corporation.
 - c. Or equal.
 2. Install markers and arrows at following locations:
 - a. At intervals not exceeding 50 feet along continuous runs of pipe.
 - b. Wherever pipes pass through walls, floors or panels.
 - c. At each valve or equipment connection.
 - d. At each branch where it connects to a main line.

3.7 FLANGED PIPING SCHEDULE

SERVICE	SIZE (IN)	MATERIAL	INTERIOR LINING	EXTERIOR COATING	PRESSURE THICKNESS CLASS	JOINT	Quantity
Influent to UV, 22.5' EL	8	DIP	CL	P	150	FL	1
Influent to UV, 45' EL	8	DIP	CL	P	150	FL	1
Effluent from UV, 45' EL	8	DI	CL	P	150	FL	2
Effluent from UV, 11.25' EL	8	DI	CL	P	150	FL	2

Actual fitting usage may change in planned Contractor layout

PART 4 PAYMENT

Payment for this Section shall be included in GC contract.

END OF SECTION

SECTION 15094 -
PIPE HANGERS AND SUPPORTS

PART 1 GENERAL

1.1 SUMMARY

- A. Pipe hangers and supports include all metallic hanging and supporting devices and all concrete piers for above ground or interior pipelines, conduits and fittings, except electrical conduits. Hangers and supports for electrical work are specified under the Section headed "Conduits" and "Electrical General". In general, hangers and supports shall be spaced not more than 10 feet apart and at or near changes in direction of pipelines. Unless otherwise shown, specified or directed, no piping shall be supported from other piping or metal stairs, ladders or walkways.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Pipe for supports shall be in accordance with the following standards:
1. Wrought Steel Pipe-ASTM Des: A 53 Schedule 40
 2. Ductile Iron Pipe -ANSI Des: 21.6 and 21.8, Thickness Class 22
- B. Structural steel, wrought metals and metal castings used for hangers and supports shall meet the requirements of the applicable specification sections.

2.2 DESIGN

- A. Supporting devices shall be designed and arranged by the Contractor in accordance with the best practices and shall be installed to provide a working safety factor of not less than 12 for each hanger, assuming that the hanger is supporting 10 feet of pipe filled with water.
- B. Hangers and supports shall be of approved standard design where possible and shall be adequate to maintain the supported load in proper position under all operating conditions.

2.3 HANGERS

Overhead hangers for pipes 10 inches in diameter and smaller shall be supported by threaded rods and shall be of the split ring type. Overhead hangers for pipes 12 inches in diameter and larger and for smaller pipes where shown or specified, shall be single rolls and sockets.

2.4 FLOOR SUPPORTS

- A. Floor supports for supporting piping off of floor shall be furnished with base plates where required to anchor the supports to the existing floor. Saddle stands shall be of the adjustable type with floor flanges for bolting to floors of foundations. Stanchions shall be similar to saddle stands except that they shall have a top yoke. Pipelines 3 inches in diameter and smaller not requiring adjustment may be supported on single hooks. Adjustable floor stand manufacturer are Cooper B-Line or

equal.

- B. Anchor chairs shall be used where shown or specified for holding pipelines in rigid alignment.
- C. Where piping is installed on structural steel supports, blocking or pipe rolls shall be provided to arrest lateral pipe movement.
- D. Insulated pipes 2-1/2 inches in diameter and larger shall be provided with protection saddles.
- E. Beam and channel clamps shall be of malleable iron. Channel sections for piping supports systems shall be equal to Series P-1000 by the Unistrut Products Company or Series PS-200 Power Strut by Van Hulle Tube Corp or equal and shall be complete with clamping nuts and fittings. Finish for channel sections and fittings shall be hot dipped galvanized conforming to ASTM A-153. All exposed channel ends shall be provided with end caps. All concrete inserts shall have plastic coated filler to prevent concrete seepage. Concrete piers shall be of Class "B" concrete.

2.5 INSERTS

- A. Inserts for concrete shall be hot dipped galvanized and shall be installed in concrete structures where required and where shown on Contract Drawings. Continuous inserts shall be Series P-3200 by Unistrut Products Company or Series PS-349 Power Strut by Van Hulle Tube Corp or equal and shall be complete with clamping nuts and fittings. Finish for channel sections and fittings shall be hot dipped galvanized conforming to ASTM A-153. All exposed channel ends shall be provided with end caps. All concrete inserts shall have plastic coated filler to prevent concrete seepage. Concrete Piers shall be of Class "B" concrete.

2.6 HANGER RODS

- A. Hanger rods shall be not less than the following:

Size of Pipe (Inches)	Diameter of Rod (Inches)
6p to 8	3/8
2-1/2 to 3-1/2	1/2
4 and 5	5/8
6 and 8	3/4
10 and 12	7/8
14 and 16	1

2.7 PAINTING AND COATING

- A. Hangers and supports shall be painted in accordance with the Section entitled "Painting".

PART 3 PAYMENT

Payment for this section will be included in all Base Bid and Bid Alternate Work Items related to PIPE HANGERS AND SUPPORTS.

END OF SECTION

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SECTION 16143
POWER SPLITTING DEVICE WITH RECEPTACLES

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product Data: Catalog sheets, specifications and installation instructions.

PART 2 PRODUCTS

2.01 POWER SPLITTING DEVICE

A. Power Splitting Device:

1. Unmetered device, 20A, 120/240V / 1 phase; GE, Midwest Electric Temporary Power and Power Outlets with NEMA 3R rainproof enclosure. Product # UD11010, Overhead feed, AIC rated at 10,000, cabinet size 5" x 7", 1 phase, Certification UL / CUL., enclosure - G-9- zinc coated steel, with two duplex GFI outlets.
2. Unmetered device, 20A, 120/240V / 1 phase; GE, Backyard power outlet with NEMA 3R rainproof enclosure., Overhead feed, AIC rated at 10,000, cabinet size 5.81" x 7.13", 1 phase, Certification UL / CUL., enclosure - G-9- zinc coated steel, with two duplex GFI outlets.

B.

2.02 RECEPTACLES

~~A. Specification Grade Receptacles:~~

- ~~1. Single receptacle, NEMA 5-15R (15A, 125 V, 2P, 3W); Bryant's 5251, Creuse-Hinds/AH's 5251, General Electric's 5251-1, Hubbell's 5251, Leviton's 5251, or Pass & Seymour's 5251.~~
- ~~2. Duplex receptacles, NEMA 5-15R (15A, 125 V, 2P, 3W); Bryant's 5252/5242, Creuse-Hinds/AH's 5252/5242, General Electric's GEN5252-1, Hubbell's 5252/5242, Leviton's 5252/5242, Pass & Seymour's 5252/5242.~~
- ~~3. Single receptacle, NEMA 5-20R (20A, 125 V, 2P, 3W); Bryant's 5361/5351, Creuse-Hinds/AH's 5361/5351, General Electric's CE4103-1, Hubbell's 5361/5351, Leviton's 5361/5351, or Pass & Seymour's 5351.~~
- ~~4. Duplex receptacle, NEMA 5-20R (20A, 125 V, 2P, 3W); Bryant's 5352, Creuse-Hinds/AH's 5352/5342, General Electric's CE5352-1, Hubbell's 5352, Leviton's 5352, or Pass & Seymour's 5352.~~

B. Ground Fault Interrupter Receptacles:

1. Duplex receptacle rated 20A (NEMA 5-15R), circuit-ampacity 20A; To be included with power splitter.

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2.05 NAMEPLATES

- A. Phenolic Type: Standard white phenolic nameplates with 3/16 inch minimum size black lettering engraved thereon.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install power splitting devices (Qty: two (2)) on Kindorf frame.
- B. Local Switches:
1. None
- C. Receptacles:
1. Two (2) duplex GFI receptacles shall be an integrated part of the Power Splitter device.
- D. Weatherproof Covers: Install weatherproof covers on wiring devices in damp and wet locations.
- E. Nameplates: Provide phenolic or embossed aluminum nameplate for each special purpose receptacle indicating phase, ampere and voltage rating of the circuit. Attach nameplate with rivets or tamperproof fasteners to wall plate or to wall above receptacle. Wall plates may be engraved with required data in lieu of separate nameplates.

PART 4 PAYMENT

PAYMENT
Payment for this Section shall be included in General Contract No.: VD-G-21, Bid Item 4.01.

END OF SECTION

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SECTION 16400
ELECTRICAL

PART 1. GENERAL

- 1.1 The Electrical Contractor shall supply and install all labor, materials, equipment, tools and services including the standby generator and auto transfer switch, all natural gas piping, natural gas unit heater and exhaust fans and louvers to construct and install the electrical and systems for the Town of Duaneburg Sewer District #3 as indicated on the contract documents. The contractor will make all arrangements with National Grid for installing the new electrical service. All excavating and backfill work shall be done in accordance with the section "Excavating and Backfill". Concrete work shall conform to the section "Cast-in-Place Concrete".
- 1.2 SHOP DRAWINGS
- A. Shop drawings shall be provided on panel schedule, distribution equipment, lighting equipment, motor control equipment, and a schematic of the circuit layout, wire sizes, and corresponding conduit sizes. All wiring shall conform to the standards set forth in the latter section. If there is a conflict between the specifications or drawings, the standards will govern.
- B. Additional shop drawings shall be submitted on:
1. Ground fault protection
 2. Grounding system
 3. Panels
- C. Manufacturers data on:
1. Switches, conduit, fittings, receptacles
 2. All lighting fixtures
 3. Motor control equipment
- 1.3 WORKING DRAWINGS
- A. The contract drawings are not for the purpose of installing wiring and construction methods.
- B. They are for general location purposes only. The Contractor shall submit a set of working drawings based on the needs of the contract drawings. The Contractor's working drawings shall include the details of construction, dimensions, conduit and lighting layouts, wiring diagrams, power distribution, and panel schedule. The drawings shall also indicate supports, hangers, construction requirements and indicate a time frame for installing all elements on the drawings.
- C. The working drawings shall be completed by the Contractor 15 days after the "Notice to Proceed" and must be approved by the Engineer prior to any work commencing under this contract.
- 1.4 EQUIPMENT FINISHES
- All equipment shall have factory finishes. Any rust, corrosion, or damage on the installed equipment shall be rejected by the Owner.
- 1.5 UTILITY COMPANY APPROVAL

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All shop drawings that relate to the metering and utility service shall be forwarded to the utility for their approval. The Owner will review the shop drawings after the utility company has approved the document.

1.6 STANDARDS

- A. All work under this contract shall conform with the existing rules and requirements of the following:
1. National Electrical Code
 2. National Electrical Manufacturers Assoc.
 3. Institute of Electrical & Electronic Eng.
 4. Insulated Power Cable Eng. Assoc.
 5. Occupational Safety Hazards Act
 6. All Local Codes
- B. All material and equipment shall bear the label of the Underwriters Laboratories.
- 1.7 CERTIFICATION
- A. Upon completion of the work, the Contractor shall obtain a certificate of approval from the electrical inspection agency having inspection authority. The approvals shall be delivered to the Engineer within 5 days of receipt.
- B. The costs of all permits, inspection services, fees for both temporary or permanent installation shall be paid by the Contractor and be included in his bid price.

PART 2. PRODUCTS / MATERIALS

2.0 GENERAL

- A. The Contractor shall supply all interior lighting and receptacles as shown on the contract drawings.
- B. The Contractor shall supply line voltage power to all equipment installed on the project.
- C. The Contractor shall provide three (3) complete sets of bound Maintenance Manuals on all electrical equipment provided, including lighting fixtures, power and lighting panels, disconnects, combination motor starters, transformers, switches, and receptacles.
- 2.1 WIRE
- A. Minimum size for all copper wire shall be #12 AWG.
- B. The following minimum size shall apply to all circuits:
- 120V 60'-100' #10; 100'-150' #8; 150' and up #6
240V 100'-150' #10; 150'-225' #8; 225' and up #6
- C. Minimum size of branch circuits over 20 amps shall be 30 amp #10, 40 amp #8, 50 amp #6.
- D. Insulation shall conform to NEC requirements.
- E. Submersible pump conductors (Not applicable to this contract)
1. Shall be supplied by the equipment vendors and shall be of the extra heavy usage type and be constructed of Class K or H tinned, copper bunched-stranded wires. Insulation shall be EPD with a single pass of CP for Size No. 14 through No. 10 AWG conductors and double pass of CP for Size No. 8 and larger.

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2.2 CONDUITS

- A. All wiring shall be enclosed in conduits. The minimum size shall be 3/4" for all wiring. All conduit sizes shall be in conformance with the NEC. The following conduit material may be used on the project:
1. Rigid Steel where indicated
 2. PVC where indicated
 3. Concoaled or exposed Electrical Metallic Tubing (EMT) in finished areas and above drop ceilings.
 4. Flexible metallic conduit for final lighting connections.
 5. "Liquidtight" flexible metallic conduit for all final motor and equipment connections.
- B. Contractor is to note conditions set forth in NEC Article 310, Note 8 and plan all conduit installations accordingly.
- C. Flexible metallic conduit shall not exceed 72" in length nor be smaller than 1/2". MC cables or "BX" will not be permitted.
- D. Fittings shall be designed to conform with the conduit selected and shall be of designated size to complete the conduit system.
- E. Rigid Metal Conduit
1. Rigid metal conduit shall be galvanized steel, hot-dipped with zinc over the entire length, both exterior and interior including threads. In addition, conduits shall have a coat of lacquer for sealing.
 2. Each conduit shall have a coupling on one end and a thread protector on the other.
 3. Conduit shall meet ANSI Standards C80.1 and C80.4 latest revisions. The conduit shall be manufactured by Pittsburgh Standard Conduit Company, Triangle PVC Co., or approved equal.
- F. Non-Metallic Conduits
1. Non-Metallic conduits and fittings shall be Schedule 80, polyvinyl chloride, except as otherwise noted.
 2. Materials shall be corrosion, fire retardant and sunlight resistant.
 3. Conduit and fittings shall be in accordance with the NEMA Standard TC-2 and TC-3, latest revisions.
 4. The conduit and fittings shall be manufactured by Carlon Electric Conduit Co., Triangle PVC Co., or approved equal.
- G. Flexible Conduit
1. Flexible metallic tubing shall be hot dipped zinc galvanized flexible steel and comply to UL Standard No. 1, latest revisions. Conduit shall be manufactured by Anaconda Metal Hose Company, Triangle PVC Co., or approved equal.
 2. Liquidtight flexible metal conduit shall be constructed of flexible corrosion resistant zinc galvanized steel conduit with an extruded plastic jacket and built-in continuous copper ground strap under the jacket. Conduit shall be Type GA manufactured by Anaconda Metal Hose Company, Type LA manufactured by Electri-flex Co., or approved equal.
 3. Flexible metal conduits installed in areas classified as Hazardous shall be in compliance with Article 501 of the NEC.

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H. Conduit Outlet Bodies

1. Conduit outlet bodies shall be used where required to permit ready fishing and withdrawing of wires. Conduit bodies not located in areas classified as Hazardous shall be gasketed. Bodies shall be of the cast iron or copper-free aluminum type. Bodies shall be Conduit series manufactured by Crouse-Hinds Co., Electrostat series manufactured by Killark Co., or approved equal.
- I. Conduit Sleeves
1. Where conduits pass through the walls or floors of structures, they shall be installed in suitable sleeves. Sleeves, installed in the outside walls of structures or elsewhere where watertightness is required, shall be cast iron and shall be equal to Thru-wall and floor seals manufactured by O.A. Gedney Electrical Manufacturing Company, Inc. Types No. FSK, WSK, FSC or WSC as required, or Link-Seal as manufactured by Thunderline Corp. When Link-Seal is used, a wall sleeve, with waterstop, shall be installed. All other sleeves shall be galvanized steel pipe.
- J. Conduit Hangers and Supports
1. General
 - a. Hangers and supports for conduits shall be coated and of an approved design and shall be adequate to support conduit systems with a minimum safety factor of 10.
 2. Fasteners
 - a. All fasteners shall be stainless steel or silicon bronze or PVC coated.
 - b. All expansion anchors shall be self-drilling type.
 3. Warning Tape Where Required
 - a. Tape shall be yellow and have imprinted in a minimum of 1" high letters "CAUTION BURIED ELECTRIC WIRE BELOW" or appropriate warning approved by the Engineer.
 - b. Tape shall be 6" wide, 4.5 mil thick, made of low density polyethylene.
- 2.3 Switches, outlets and covers
- A. Due to the large amount of manufacturers, the Contractor may select any brand as long as it is 20 amp industrially rated at 125 volts. Covers shall be made to fit neatly and be an integral part of the box and switch or outlet.
- B. Contractor is to note conditions set forth in NEC Article 310, Note 8 and plan all conduit installations accordingly.
- C. Use 20 amp. grounded receptacles, Square-D, Bryant 5342, or equal. All switches 20 amp. 277 volt rated Bryant 4901, or equal. The Contractor is to note conditions set forth in NEC Article 310, Note 8 and plan all conduit installations accordingly.
- 2.4 POWER DISTRIBUTION AND SERVICE
- A. PANELS - As shown on Contract Drawings
- B. DISCONNECT - On all motors greater than 1/4 HP and according to NEC requirements, in pump control. All motors greater than 1/4 HP to have on/off control w/disconnect.
- 2.5 ELECTRICAL BOXES - Refer to 2.7.C.

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2.6 LIGHTING - As indicated on the Contract Drawings.

2.7 INSTRUMENTATION CABLES

- A. Control cable shall consist of 600 volt, individual conductors constructed of a minimum of seven strands of No. 14 AWG uncoated Class B copper concentric-lay-stranded wires. Each conductor shall have HMW-PE insulation and color coded PVC outer jacket. Multiconductor assemblies shall have an additional overall PVC jacket around conductors. Cables shall be Type 20-10 as manufactured by Anaconda, Type CT-B manufactured by Rome Cable Co. or equal. All control cables shall be tagged at either end.
- B. Twisted pair instrumentation conductors shall consist of two twisted strands of No. 16 AWG tinned coated Class C copper concentric-lay-stranded wires with a foil tape shield with #16 copper drain wire equal to Belden No. 8719. Each conductor shall have HMW-PE insulation and color coded PVC outer jacket. With multiconductor twisted pair assemblies, a 4 mil thick soft copper type shall be applied over cable assembly in lieu of the individual shielding and an additional overall PVC jacket around conductors. All instrumentation cables shall be tagged at either end.
- C. All junction and device boxes for concealed locations shall be 4" sq. x 2 1/8" deep minimum with blank covers or device rings. "GEM" type boxes will not be permitted.
- D. All exposed conduit installations are to be at right angles to the structure and shall be installed in a professional manner.

PART 3. EXECUTION

3.0 TESTING

A. 600V AND BELOW

1. Each panel shall be tested with the main disconnected from the supply, branches connected, breakers closed and all fixtures in place and connected, lamps removed and switches closed.
2. Each circuit will then be tested at the panel.

3.1 GROUNDING

- A. Grounding shall be installed as per the requirements of the NEC and the utility company.
- B. All grounding shall be illustrated on the Contractor's working drawings. Shop drawings of the main service ground must be submitted to the utility company for approval. Railings and stairs must be bonded to the building concrete reinforcement system with "cad weld" termination kits.

3.2 GROUND FAULT PROTECTION

- A. Shall be provided on all outside receptacles.

3.3 CONDUIT INSTALLATION

- A. All areas shall be interpreted as industrial and all conduit work shall be installed exposed except as otherwise shown and specified.
 1. Areas in which there is a finish ceiling or walls as indicated on the Contract Drawings, shall have all conduit work concealed.
 2. All power and control wiring shall be run in rigid metal conduit.
 3. Flexible metallic tubing shall be used for final

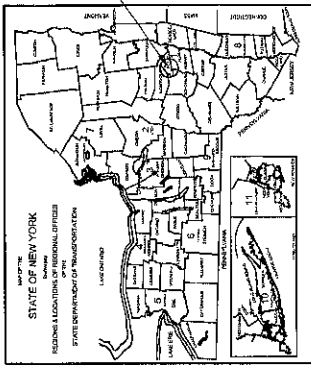
lighting connections only.

4. Connections to motors and other vibrations equipment shall be liquid tight flexible metal conduit. In Hazardous Areas flexible metallic conduits shall be suitable for the location.
5. Where spare conduits are shown to be installed, the conduit shall be capped at each end and provided with a nylon fishwire.
6. All conduits routed next to walls, columns, or ceilings shall have 1/4" spaces between conduit and walls or ceiling.
7. Conduit reducers shall not be allowed.
8. Expansion joints shall be installed in conduits crossing buildings expansion joints and on all PVC (where allowed) underground installations at intervals not to exceed 250'.
- B. Underground Conduits
 1. All buried conduits shall be individually tied to the plant grounding grid at:
 - a. Each electric manhole or handhole.
 2. Pressure clamps and ground wires shall be in accordance with the Section headed "Grounding".
 - a. Connections to the conduit system shall be installed in accordance with the manufacturer's recommendations to obtain harmonious ground continuity without deleteriously affecting the conduits protective coating.
 3. All buried conduits or groups of conduits two feet in width or less shall have an identifying tape buried 18" under finish grade and located directly over the center line of the conduits.
 4. Underground conduits exiting and entering structures shall have expansion couplings as specified.
- C. Any installation of conductors in interior conduit runs must not occur until the building is made weather tight.

3.4 Power distribution and service

- A. The Contractor shall supply and install all equipment, wiring and conduit necessary. All materials must be installed in accordance with the NSC code, and the local electric utility.
- 3.5 The Contractor shall supply all interior lighting and receptacles as shown on the contract drawings.
- 3.6 The Contractor shall supply line voltage power to all equipment installed on the project.
- 3.7 The Contractor shall provide three (3) complete sets of bound Maintenance Manuals on all electrical equipment provided, including lighting fixtures, power and lighting panels, disconnects, combination motor starters, transformers, switches, and receptacles.

END OF SECTION



CONTRACT DRAWINGS
TOWN OF DUANESBURG, NY
MARIAVILLE WWTP
UV DISINFECTION

CONTRACT Nos. TD1-G-21 GENERAL
 DEC01-C00799GG-3350000

SUPERVISOR - BILL WENZEL

TOWN BOARD

JOHN D. GANTHER JR
 ANDREW LUCKS

DIANNE GRANT
 RICK POTTER

TOWN CLERK - JENNIFER HOWE

WWTP HEAD OPERATOR - ANDREW DENNIS

JANUARY 18, 2022



**DELAWARE
 ENGINEERING, D.P.C.**
 CIVIL AND ENVIRONMENTAL ENGINEERING

55 SOUTH MAIN STREET, ONEONTA, NY 13820 - 607.432.8073
 28 MADISON AVENUE EXTENSION, ALBANY, NY 12203 - 518.452.1290
 6 TOWNSEND STREET, WALTON, NY 13856 - 607.865.9235
 31 N. MAIN STREET, LIBERTY, NY 12754 - 845.747.9852
 16 EAST MARKET STREET, RED HOOK, NY - 518.452.1290
 548 BROADWAY, MONTICELLO, NY - 845.791.7777



LOCATION MAP

INDEX TO DRAWINGS

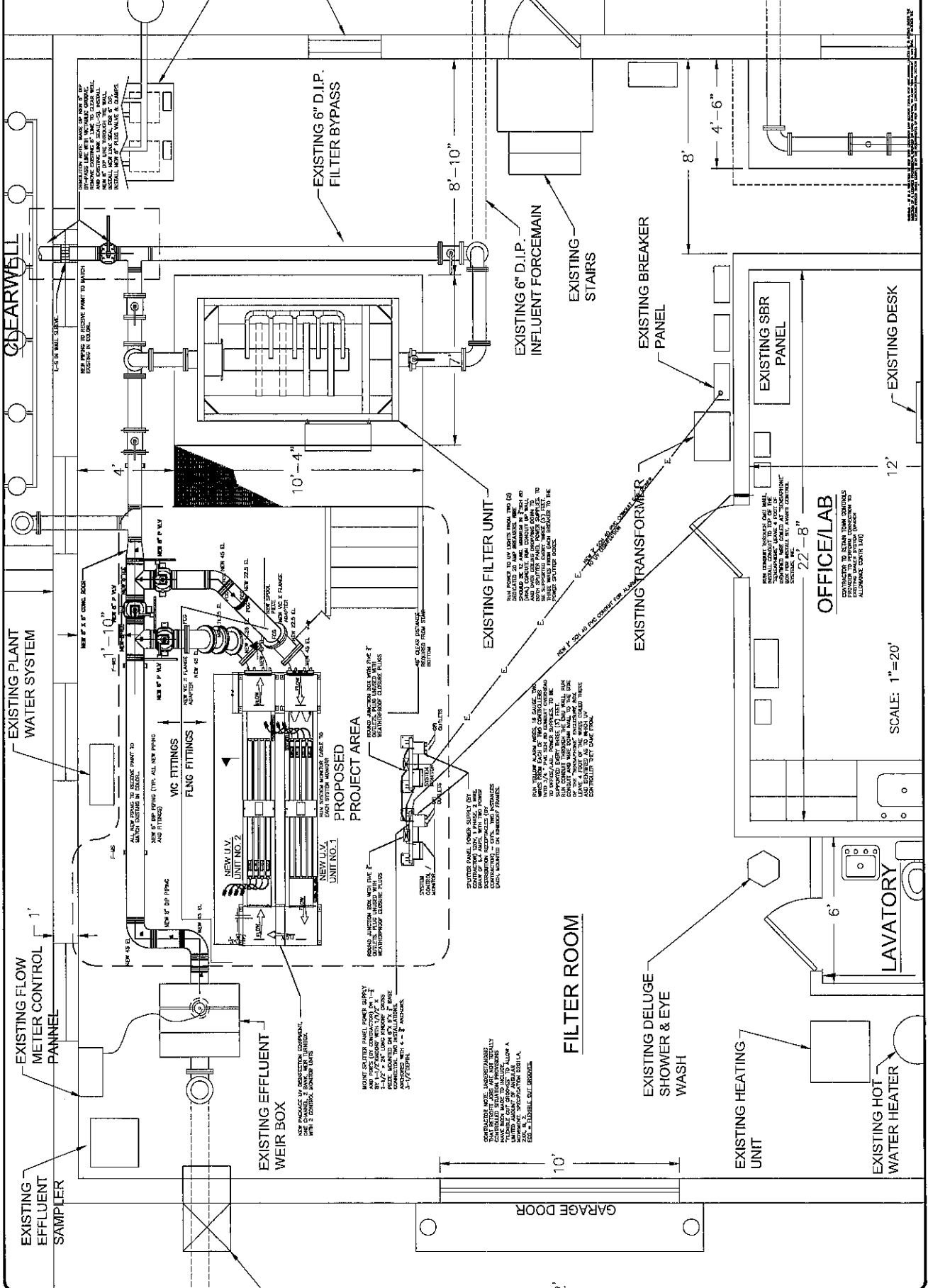
- M-1 EXISTING WWTP FLOOR PLAN
- M-2 UV UPGRADE FLOOR PLAN
- M-3 UV UPGRADE SECTIONS & DETAILS

NO.	DATE	DESCRIPTION



DELAWARE
ENGINEERING, P.C.
CIVIL AND ENVIRONMENTAL ENGINEERING
55 SOUTH MAIN STREET, ONEONTA, NY 13827-4222
815-339-8300 FAX 815-339-8305
31 N. MAIN STREET, LIBERTY, NY 12544-8462 FAX 518-247-8882

DATE: 7/18/14
DRAWN BY: MBP
SCALE: 1/32
REVIEWED BY: WBS
PROJECT NO.: 14141
FILE: M-2 U.V. UPGRADE



SCALE: 1"=20'

OFFICE/LAB
22'-8"
CONTRACTOR TO SEEN FROM CONTROLS
FRONT TO REAR (INDICATED BY
ALUMINUM CHAIR LEG)

NEW 1/2" DIA. RIGID PVC CONDUIT FOR ALL
NEW 1/2" DIA. RIGID PVC CONDUIT FOR ALL
NEW 1/2" DIA. RIGID PVC CONDUIT FOR ALL
NEW 1/2" DIA. RIGID PVC CONDUIT FOR ALL

EXISTING TRANSFORMER
EXISTING BREAKER
EXISTING PANEL

FILTER ROOM

EXISTING DELUGE
SHOWER & EYE
WASH

EXISTING HEATING
UNIT

EXISTING HOT
WATER HEATER

EXISTING EFFLUENT
WEIR BOX

EXISTING EFFLUENT
METER CONTROL
PANEL

EXISTING EFFLUENT
SAMPLER

EXISTING PLANT
WATER SYSTEM

EXISTING 6" D.I.P.
INFLUENT FORCEMAIN

EXISTING 6" D.I.P.
FILTER BYPASS

EXISTING FILTER UNIT

EXISTING STAIRS

EXISTING SBR
PANEL

EXISTING DESK

EXISTING TRANSFORMER

EXISTING BREAKER

EXISTING PANEL

EXISTING SBR
PANEL

EXISTING DESK

EXISTING TRANSFORMER

EXISTING BREAKER

EXISTING PANEL

EXISTING SBR
PANEL

EXISTING DESK

EXISTING TRANSFORMER

EXISTING BREAKER

EXISTING PANEL

EXISTING SBR
PANEL

EXISTING DESK

EXISTING TRANSFORMER

EXISTING BREAKER

EXISTING PANEL

EXISTING SBR
PANEL

EXISTING DESK

EXISTING TRANSFORMER

EXISTING BREAKER

EXISTING PANEL

EXISTING SBR
PANEL

EXISTING DESK

DATE: 7/27/16
 DRAWN BY: MJP
 SCALE: 1/8" = 1'-0"
 PROJECT NO.: 130
 REVISED BY: WB
 FILE: 20170716.DWG

DELaware ENGINEERING, P.P.C.
 CIVIL AND ENVIRONMENTAL ENGINEERING
 25 SOUTH MAIN STREET, SUITE 201, WILMINGTON, DE 19801
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 314.426.8889

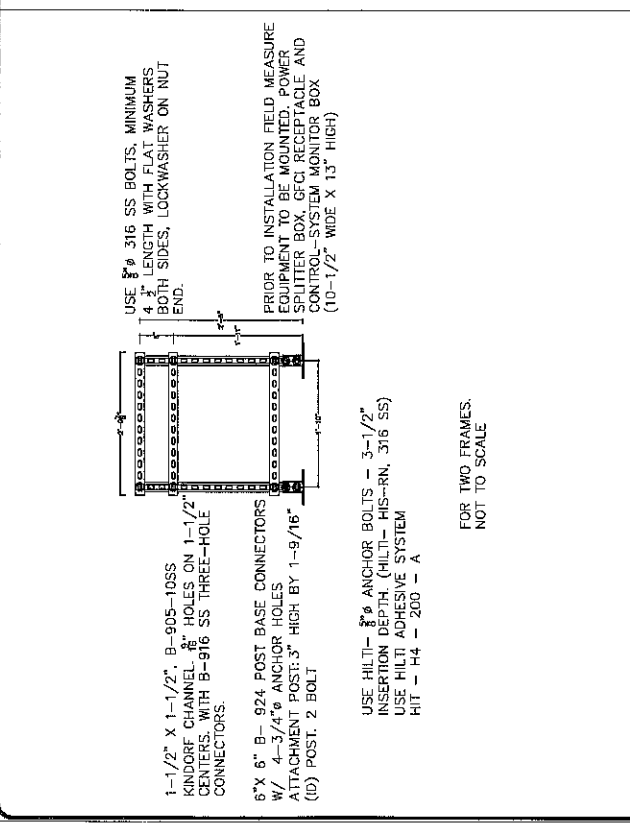
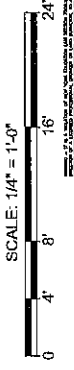
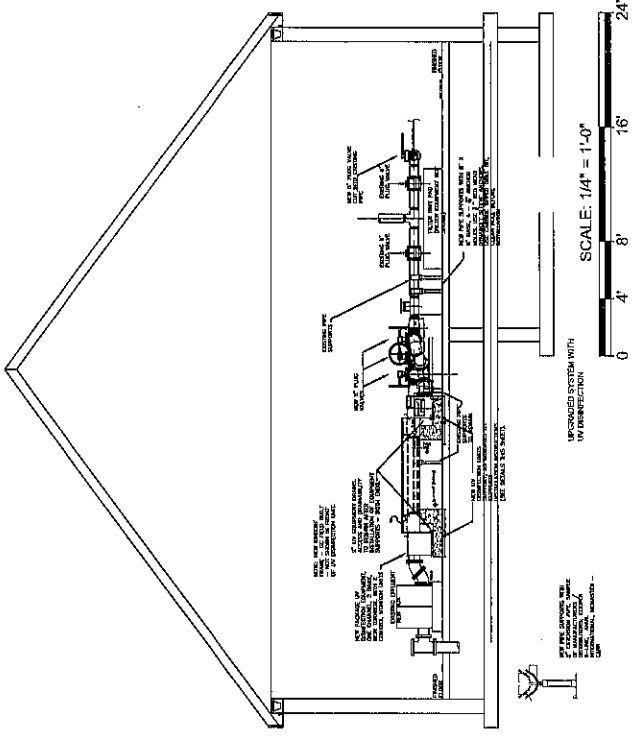
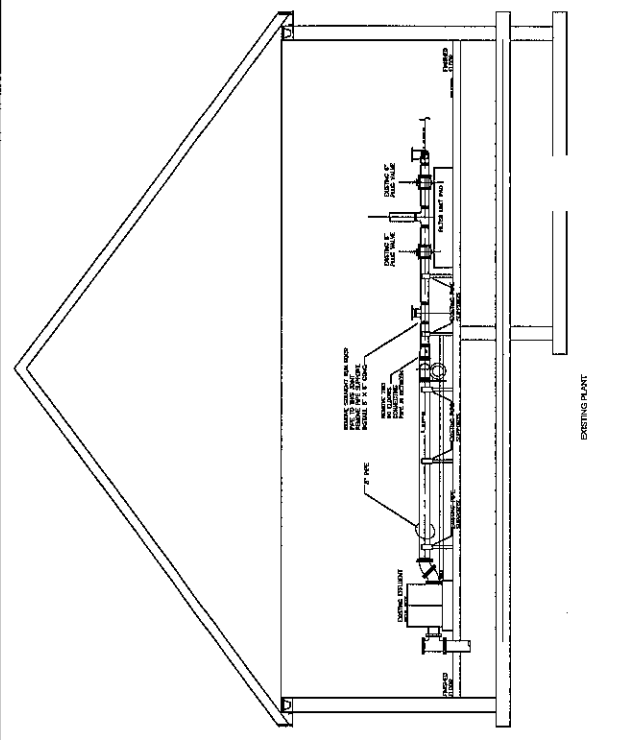


NO.	DATE	DESCRIPTION

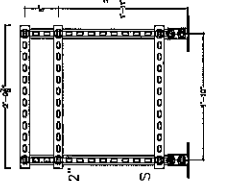
TOWN OF DUANESBURG
 SEWER DISTRICT NO. 2
 MARIAVILLE LAKE WWTP
 U.V. UPGRADE PROJECT

SECTION
 U.V. UPGRADE
 EXISTING & NEW

SHEET
M-3

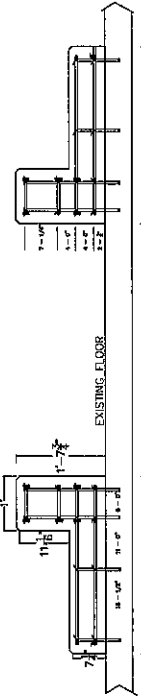
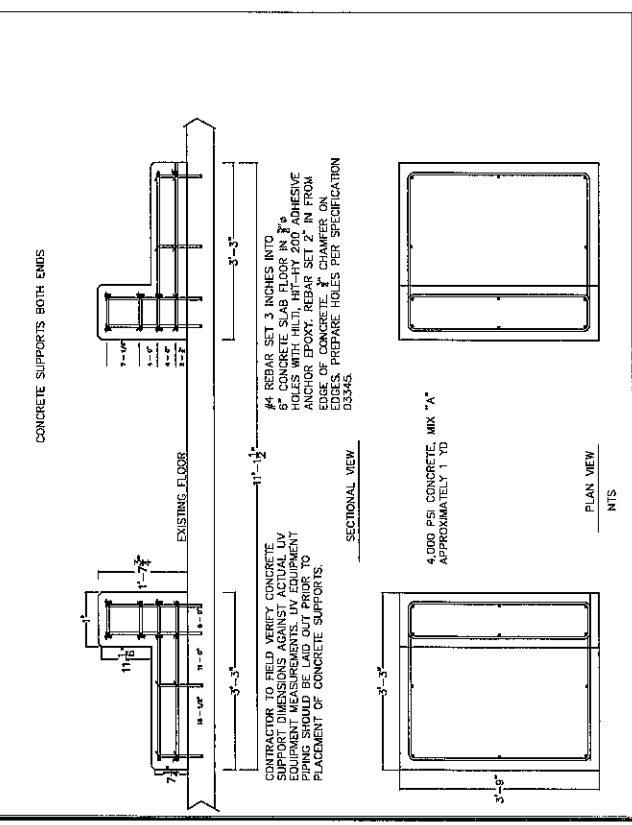


USE $\frac{5}{8}$ " ϕ 316 SS BOLTS. MINIMUM
 4" LENGTH WITH FLAT WASHERS
 BOTH SIDES. LOCKWASHER ON NUT
 END.

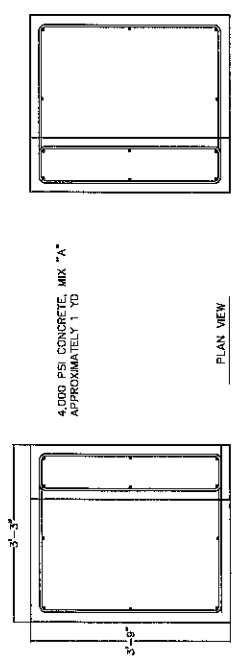


PRIOR TO INSTALLATION, FIELD MEASURE
 EQUIPMENT TO BE MOUNTED. POWER
 SPLITTER BOX, GFCI RECEPTACLE AND
 CONTROL-SYSTEM MONITOR BOX
 (10-1/2" WIDE X 13" HIGH)

USE HILTI- $\frac{5}{8}$ " ϕ ANCHOR BOLTS - 3-1/2"
 INSERTION DEPTH. (HILTI-HIS-RN, 316 SS)
 USE HILTI ADHESIVE SYSTEM
 HIT - H4 - 200 - A



CONTRACTOR TO FIELD VERIFY CONCRETE
 SUPPORT DIMENSIONS AGAINST ACTUAL DV
 EQUIPMENT MEASUREMENTS. FIELD
 PLACEMENT OF CONCRETE SUPPORTS.



4,000 PSI CONCRETE, MIN "A"
 APPROXIMATELY 1 YD

SECTIONAL VIEW

CONCRETE SUPPORTS BOTH ENDS

EXISTING FLOOR

INVITATION FOR BIDS

NOTICE IS HEREBY GIVEN, that sealed bids are sought by

THE TOWN OF DUANESBURG, NY

for:

MARIAVILLE WWTP / NYS CONTRACT NUMBER # DEC01-COO799GG-3350000

ULTRA-VIOLET (UV) DISINFECTION PROJECT

CONTRACT No. TD1-G-21-GENERAL

The project entails purchase and installation of a new UV disinfection system and piping modifications to install the UV system

CONTRACT No. TD1-G-21 - GENERAL CONSTRUCTION

Work of the GENERAL CONTRACT (TD1-G-21) generally includes but is not limited to:

- Purchase and installation of new UV disinfection system
- Required demolition as shown on drawings.
- Purchase, cut in and install gate valve with Victaulic fittings on 6" line.
- Purchase material, make and install concrete floor supports for the new UV system as per drawings and supplier information.
- Electrical and control work to facilitate operation of new UV unit
- Perform startup & training for new equipment
- Work and conference with Plant Operators for uninterrupted wastewater plant operation.
- Furnish and install a project sign.

This project is being funded by the Town of Duanesburg with additional financing provided by NYSDEC WQIP Grant. See exhibit A-1 for additional details.

Contractor to provide MWBE Participation valued at minimum \$60,000 in their bid in accordance with funding requirements.

Work to be completed and plant in compliance by **March 30, 2023.**

Bidders are advised that Labor and Material and Performance Bonds, each in the amount of 100% of the contract price, as well as a Certificate of Insurance demonstrating required coverage, shall be provided by the successful bidder. In addition, the successful bidder shall provide a one-year maintenance bond in the amount of 100% of the contract price at completion of the work.

The bidder(s), and /or significant subcontractor(s) shall have the requisite experience to perform the project work. Bidder(s) and subcontractor(s) shall provide a list of similar projects on-going and/or completed over the last ten (10) years with their bid. Those bidders lacking adequate experience will be deemed non-responsive and are encouraged not to submit a bid.

Sealed bids will be received by the Town Clerk at the Town Hall, 5853 Western Turnpike, Duanesburg, NY 12056, until **Tuesday March 1 at 2:00 P.M.**, at which time they will be publicly opened and read aloud. The identity of all offerers will be publicly disclosed on the Town Bulletin in Town Hall.

At the bid opening, the Contractor must supply a BID GUARANTEE of five percent [5%] of the TOTAL AMOUNT of the bid submitted. The guarantee may be in the form of a bid bond.

Proposals shall be submitted on bid forms which are contained in the detailed specifications available at www.debiddocuments.com beginning on **February 8, 2022**. Bid Forms and associated contract documents will only be available from the bidding service.

Contract Documents may be viewed at no expense online beginning on **February 8, 2022**, at the following website: www.debiddocuments.com, or at the office of Delaware Engineering, D.P.C., 55 South Main Street, Oneonta, NY, 13820, or at Duanesburg Town Hall 5853 Western Turnpike Duanesburg, NY 12056

Digital copies of the Contract Documents may be obtained online as a download from the website: www.debiddocuments.com for a fee of \$49.00.

Complete hardcopy sets of bidding documents may be obtained from REVplans, 28 Church Street, Unit 7, Warwick, NY 10990, Tel: 1-877-272-0216, upon depositing the sum of \$100 for each complete set of contract documents. Checks or money orders shall be made payable to Delaware Engineering, D.P.C. and shall be non-refundable. Cash deposits will not be accepted. Any Bidder requiring documents to be shipped shall make arrangements with REVplans and pay for all packaging and shipping costs.

Any Addenda will be emailed from bidding service.

Attention is called to the fact that not less than the minimum salaries and wages set forth in the Contract Documents (see Exhibits) must be paid on this project; that the Contractor must insure that employees and applicants for employment are not discriminated against because of their race, creed, color, religion, sex or national origin. The Contractor must also be aware that he must comply with all provisions of the State Wage Rates (PRC #2022000485).

In addition, the Contractor must comply with Labor Law 220, section 220-h, which requires that on all public work projects of at least \$250,000.00, all laborers, workers and mechanics on the site be certified as having successfully completed the OSHA 10-hour construction safety and health course.

Bids may be held by the Owner for a period not to exceed forty-five (45) calendar days from the date of the openings of Bids for the purpose of reviewing the Bids and investigation of the qualifications of the Bidders and subsequent approval of the Bids and related documents by the owner.

The Owner reserves the right to reject any and all Bids or waive any informalities in the Bidding.

Technical questions should be directed to Bill Brown at Delaware Engineering D.P.C.'s Oneonta Office at 55 South Main Street, Oneonta, NY 13820 (607-432-8073 phone, 607-432-0432 fax).

Owner:

Town of Duanesburg
5853 Western Turnpike
Duanesburg, NY 12056
(518)-895-8920 (phone)
(518)-895-8171 (fax)
Contact Person: Dale Warner, Code Enforcement Officer

Owner's Engineer:

Delaware Engineering, D.P.C.
55 South Main Street
Oneonta, NY 13820
607-432-8073 (phone)
607-432-0432 (fax)
Contact Person: Bill Brown, P.E.

Town of Duanesburg Town Board
RESOLUTION NO. __ - 2022

January 27, 2022

WHEREAS, pursuant to General Municipal Law § 122-b, the Town Board of the Town of Duanesburg (the “Town Board”) has the authority to contract for general ambulance services including, but not limited to, basic life support and advanced life support (“General Ambulance Services”); and

WHEREAS, the Town Board has determined that it is in the public interest to contract with Duanesburg Volunteer Ambulance Corps, Inc (“DVAC”) for the provision of General Ambulance Services within the Town (the “DVAC Contract”) in the calendar year 2022; and

WHEREAS, DVAC has provided the Town Board with the attached fee schedule for calendar year 2022.

NOW, THEREFORE, BE IT RESOLVED, that the Town Board hereby approves DVAC’s attached fee schedule for calendar year 2022 and approves and authorizes the Town Supervisor to execute the attached DVAC Contract.

By (unanimous/majority) vote of the Town Board of the Town of Duanesburg at its regular meeting of January 27, 2022

William Wenzel, Supervisor

Town Clerk/Deputy Town Clerk

Present:

Absent:

Town Board Members:

William Wenzel	Yea	Nay	Abstain
John Ganther	Yea	Nay	Abstain
Rick Potter	Yea	Nay	Abstain
Andrew Lucks	Yea	Nay	Abstain
Dianne Grant	Yea	Nay	Abstain

**AGREEMENT BETWEEN TOWN OF DUANESBURG AND
DUANESBURG VOLUNTEER AMBULANCE CORPS, INC.
FOR EMERGENCY MEDICAL AND GENERAL AMBULANCE SERVICE IN
THE
TOWN OF DUANESBURG**

THIS AGREEMENT, made the 27 day of January, 2022, between the **TOWN OF DUANESBURG**, 5853 Western Turnpike, Duanesburg, NY 12056 (the “Town”) and **DUANESBURG VOLUNTEER AMBULANCE CORPS, INC.** (“DVAC”), a not-for-profit corporation organized and existing under the laws of the State of New York, with its office and principal place of business at 130 Cole Rd, Delanson, New York 12053 (the “Agreement”);

WITNESSETH:

WHEREAS, the Town is desirous of entering into an agreement for providing emergency medical and general ambulance services including, but not limited to, Basic Life Support (“BLS”) and Advanced Life Support (“ALS”) (collectively, “Ambulance Services”), within the Town pursuant to the provisions of New York State General Municipal Law (“GML”) § 122-b; and

WHEREAS, DVAC is desirous of furnishing Ambulance Services within the Town, under the terms and conditions set forth herein; and

WHEREAS, at a regular meeting of the Town Board of the Town of Duanesburg held on January 27, 2022, the Town duly authorized this Agreement with DVAC upon the terms and conditions set forth herein; and

WHEREAS, this Agreement has been authorized by the Board of Directors of DVAC.

NOW THEREFORE, in consideration of the mutual promises recited herein and other good and valuable consideration, the receipt of which is hereby acknowledged, the Town does contract with DVAC to furnish Ambulance Services within the Town, and DVAC agrees to furnish such Ambulance Services, subject to the following provisions:

1. TERM

This Agreement shall be effective January 1, 2022 until December 31, 2022 (the “Term”), unless otherwise extended by written agreement of the parties.

2. RENEWAL AND MODIFICATION

No provision or term of this Agreement shall be modified, amended, waived or limited except by written agreement expressly referring hereto and to the provision

so modified, amended, waived or limited and signed by both parties to this Agreement.

3. OBLIGATIONS OF DVAC

DVAC will:

- 3.1 Provide Ambulance Services within the Town. DVAC will be solely responsible for supplying, maintaining, and equipping ambulances and for providing sufficient and properly trained personnel for the provision of such services and shall comply with all applicable laws and regulations including, but not limited to, the mandates of the New York State Department of Health Bureau of Emergency Medical Services and State Emergency Medical Advisory Committee, the Regional Emergency Medical Services Council of the Hudson Mohawk Valleys and Regional Emergency Medical Advisory Committee for the operation of such Ambulance Services. DVAC will arrange for ALS intercept services on an as needed basis for the Town.
- 3.2 Provide trained and qualified persons to provide Ambulance Services in accordance with the laws of New York State, Department of Health Regulations, Protocols and Policy Statements, and Regional and DVAC protocols and procedures.
- 3.3 Provide or arrange for the provision of Ambulance Services twenty-four (24) hours a day, seven (7) days per week for all persons requiring such services within the Town.
- 3.4 Incur and pay for the following operating expenses:
 - Heat, lights, telephone and all other utilities in connection with DVAC's facilities;
 - General maintenance, repairs and supplies for the equipment, vehicles and housing for ambulances and meetings;
 - Replacement of medical supplies and equipment;
 - All liability insurance on the ambulance vehicles and DVAC facilities;
 - All liability, contractual liability, malpractice, workers compensation, contractual and/or errors and omissions insurance covering all members of DVAC; and
 - All training and continuing education of its members, including such certification and recertification as may be required by law.

- 3.5 Coordinate the provision of Ambulance Services provided in the Town by other ambulance service companies and providers of emergency medical services (“EMS”) as mutual aid on an as-needed basis in accordance with federal, state, regional, and DVAC protocols and policies.
- 3.6 Provide appropriate quarters to station personnel and to store vehicles and other equipment for use in the Town.
- 3.7 No later than July 31st of each year of the Term, provide the Town with an inventory of all property and equipment owned by or in the custody of DVAC that is utilized or intended to be utilized for the provision of Ambulance Services. For purposes of this paragraph the term “property and equipment” shall mean any item with a replacement cost in excess of \$2,000.00 dollars.
- 3.8 No later than July 31st of each year of the Term provide to the Town a listing of all cash assets of DVAC, including reserve accounts.
- 3.9 Seek fee collection from persons utilizing the Ambulance Services and account for same as more fully set forth in this Agreement. Unless otherwise directed by a lawful mandate by the Town, DVAC will seek to collect co-pays or deductibles from users of the Ambulance Service as part of Fee Collection set forth in Section 5.
- 3.10 DVAC shall provide the Town with the accounting and reporting of calls, fees collected, and other matters as required in other portions of this Agreement.
- 3.11 On an annual basis no later than November 1st of each year of the Term, DVAC will make a recommendation to the Town as to the appropriate amount of fees or charges for Ambulance Services to be considered for approval by the Town for the forthcoming year. Such recommendation shall be reasonably founded on empirical data and shall provide the anticipated usual and customary rate(s) for said Ambulance Services in the forthcoming year. The Schedule of Fees for the initial term is appended hereto as **Addendum A**.
- 3.12 Warrants that any and all of DVAC corporate or internal conditions precedent to the execution of this Agreement have been satisfied or ratified by DVAC and that the signatory of this Agreement on behalf of DVAC has the authority to execute this Agreement and to bind the corporation.
- 3.13 Keep in force its Ambulance Service Certificate and maintain compliance with the applicable requirements of Article 30 of the Public Health Law and State Emergency Medical Services Code.

4. OBLIGATIONS OF THE TOWN

- 4.1 In consideration of DVAC successfully and fully providing the Ambulance Services for the Term, DVAC shall be compensated in the amount of up to **\$330,713.90** (the "Contract Fee"). The Contract fee shall be comprised partially of a payment from the Town (the "Town Payment Portion") and partially of fee collection performed by DVAC pursuant to Section 5 (the "Fees Collected Portion"). For the Town Payment Portion, the Town shall pay **\$238,711.00** to DVAC in quarterly payments.

The Fees Collected Portion of the Contract Fee shall be raised through fee collection performed by DVAC pursuant to Section 5. Should the amount of fees collected by DVAC during the Term, plus the Town Payment Portion, exceed the Contract Fee, the excess amount shall be remitted to the Town. If the amount of fees collected by DVAC during the Term, plus the Town Payment Portion, is less than the Contract Fee, such shortfall shall be borne by DVAC. The Town is hereby relieved from the obligation to pay DVAC more than the Town Payment Portion of **\$238,711.00**.

The Contract Fee represents the present financial commitment made by Town to DVAC plus additional monies required to ensure ambulance service coverage of the Town as set forth herein through contracting for additional day-time staffing.

- 4.2 The Town shall only be responsible to DVAC for the amounts set forth in Paragraph 4.1.
- 4.3 The Town may, pursuant to General Municipal Law Section 122-b(2), formulate such rules as it deems necessary for the provision of Ambulance Services and will establish a schedule of fees or charges to be paid by such persons using the services. Such fees and charges shall conform with federal and State mandates and shall be within the range of usual and customary rates for ambulance services in the region.
- 4.4 The Town may enact such lawful resolutions as necessary to affect the intended purposes of this Agreement.
- 4.5 The Town may authorize emergency call answering and ambulance dispatching of calls originating in the Town through the appropriate dispatch center.
- 4.6 Upon request of DVAC, the Town may plow, sand, salt and/or de-ice DVAC facilities so as to enable DVAC to render Ambulance Services to the Town. The Town shall retain sole discretion regarding whether to perform such snow removal and ice removal/mitigation services. With

respect to the Town's performance of snow removal and ice removal/mitigation services, DVAC will defend and indemnify the Town to fullest extent permitted by law from and against any liability or claims except for liability arising out of the negligence or willful misconduct of the Town.

5. FEE COLLECTION

- 5.1 DVAC will seek fee collection from all persons utilizing the Ambulance Services.
- 5.2 DVAC, as the transporting agency, will bill patients, their insurers (including private insurers, Medicare and Medicaid) and guarantors at the usual and customary rates for the locale and as approved by the Town for the provision of Ambulance Services. Bills for services will be submitted to patients transported to or from a health care or health related facility, for properly chargeable ALS and BLS treatment, and for evaluations, assessments, and assistance that are deemed properly chargeable Ambulance Services as permitted by law. The expenses incurred for pursuing fee collection shall be borne by DVAC and subtracted from those sums received from third parties for service, including any additional costs to DVAC for providing billing services attributable to ALS billing. DVAC may contract with a vendor(s) to supply billing services and the use of such vendor shall be subject to approval by the Town. Any proposed contracts for billing services or for contactors to be retained by DVAC in order to pursue fee collection shall be subject to the approval of the Town, and Town's approval of such contracts shall not be unreasonably withheld.

6. BUDGETING

- 6.1 Prior to the fifteenth day of September of each year of the Term, DVAC will submit to the Town Supervisor for consideration by the Town Board of the Town a proposed budget for the forthcoming calendar year. The budget shall contain sufficient detail of the projected expenses, fees collected, and fund balances for the forthcoming year and be in such form as the Town may request. In addition, the proposed budget will contain a listing of the amount of fees collected through June 30 of the present calendar year and a forecast of projected fee collection through the balance of the present calendar year.

7. AUDIT AND FINANCIAL CONTROL

- 7.1 Fees collected by DVAC will be deposited in a federally insured bank account. The bank account shall be established and structured in a manner that the release of funds may only be made upon the authorization of the Town. The release of funds in a total amount less than or equal to the

approved annual budgeted amount is hereby authorized pursuant to this Agreement. The release funds in excess of the approved annual budgeted amount may only be authorized upon the further express, written consent of the Town pursuant to Paragraph 2. The designated fiscal officer of the Town shall implement procedures for the accounting of fees collected by DVAC and for the release of account funds to provide for the orderly administration, disbursement, and accounting of funds from such account. The procedures are intended to continue and may be refined or modified as the Town deems necessary or as may be required by law.

7.2 On A Quarterly Basis

No later than the 15th day of the first month after each quarter, i.e. April 15, July 15, October 15 and January 15:

7.2.1 DVAC will provide the Town with reports prepared by DVAC or its billing vendor demonstrating the number of calls generating bills, amounts billed, fees collected, accounts deemed uncollectible, and such other non-privileged financial information as the Town may require.

7.2.2 DVAC will provide the Town with copies of bank statements (with balances) and account reconciliations for the collection funds designated in Section 7.1 of this Agreement.

7.2.3 DVAC will provide the Town with copies of ambulance billing reports that include amounts billed during and the amount of fees collected during the preceding month, the amount of write-offs of uncollectable bills, if any, the percentage rate of collection in amount collected versus amount billed, and the billable call volume as a percentage of total call volume.

7.3 On An Annual Basis

No later than May 1:

7.3.1 DVAC will provide the Town with an annual summary of the number of calls and call type, collections, expenses, and other measurable deliverables as the Town may request in a format acceptable to the Town.

7.3.3 DVAC will provide the Town a copy of DVAC's (current) filed IRS Form 990 each year during the term of this Agreement. In the event that DVAC obtains an extension from the IRS to file its Form 990 beyond May 1, DVAC will provide a copy of said Form 990 to the Town as soon as possible after filing.

7.3.4 With the exception of the annual audit prepared by the certified public accountant, any reports and documentation required herein will be provided

to the Town in a format either approved by or acceptable to the Town Supervisor. Nothing herein shall require or imply that DVAC is obligated to disclose a patient's identity or other protected health information as governed by HIPAA or other governmental statute, rule or regulation.

7.3.5 Donations made to DVAC and other sources of revenue not arising from fee collection (e.g. grants, fundraisers, memorials, monetary gifts) shall be disclosed but shall not be considered collections for purposes of this Section.

8. INDEMNITY

To the fullest extent permitted by law, DVAC will defend, indemnify and hold harmless the Town in any claim for personal injuries including death, damage to persons or property, misappropriation of funds, injunctive relief or administrative enforcement arising out of DVAC's operations, actions, or obligations under the Agreement. To the fullest extent permitted by law, the Town will indemnify and hold harmless DVAC in any claim for personal injuries including death, damages to persons or property, injunctive relief or administrative enforcement arising out of the Town's operations, actions, or obligations under this Agreement.

9. INSURANCE

9.1 DVAC shall purchase and maintain in full force and effect insurance policies with the following limits of insurance:

9.1.1 Commercial General Liability (GCL) / Professional Health Care Liability

Commercial General Liability / Professional Health Care Liability with limits not less than \$1,000,000 per occurrence or medical incident, \$10,000,000 general aggregate and products / completed operations aggregate for each occurrence or medical incident.

The Town shall be included as Additional Insured. Additional Insurance coverage shall apply on a primary and not contributory basis.

9.1.2 Management Liability

Each offense or Wrongful Act - \$1,000,000 / \$10,000,000 aggregate. Defense Expense for Injunctive Relief - \$50,000

9.1.3 Automobile Liability

Business Automobile Liability with a combined single limit of not less than \$1,000,000 limit per accident, including owned, non-owned, leased, and hired vehicles. Volunteers / Employees must be identified as insured under non-owned automobiles.

The Town shall be included as Additional Insured on a primary and not contributory basis.

9.1.4 Umbrella / Excess Liability

Umbrella / Excess Liability with limits not less than \$10,000,000 per occurrence / \$10,000,000 annual aggregate – excess over automobile, general liability, professional health care liability, and management liability.

Umbrella Liability must include the Town as Additional Insured.

Umbrella / Excess Liability shall apply on a primary and not contributory basis.

9.1.5 Workers Compensation and Employers Liability

Employers Liability Insurance with limits not less than \$1,000,000 Each Accident for bodily injury by an accident and \$1,000,000 Each Employee for injury by disease.

- 9.2 All insurance required herein must be with insurers licensed to conduct business in New York State and acceptable to the Town. All insurance shall be from an insurer with A.M. Best rating form A- to A+ or better.
- 9.3 Notice of Cancellation. All policies and Certificates of Insurance shall expressly provide that the Town must receive thirty (30) days written notice in the event of material alteration, cancellation, or non-renewal coverage.
- 9.4 Waiver of Subrogation. All policies must include a Waiver of Subrogation against the Town for general liability professional health care liability, automobile liability, umbrella/excess liability, workers compensation and employer's liability.
- 9.5 Evidence of Insurance. DVAC shall furnish the Town a Certificate(s) of Insurance executed by a duly authorized representative of each insurer, setting out the compliance with the insurance requirements set forth above. Certificates of Insurance must indicate the amounts of any and all deductibles. A copy of the Additional Insured Endorsement(s) must be provided to the Town. Neither failure to provide such certificate nor the

failure of the Town to request such certificate shall be deemed to be a waiver of DVAC's obligation to provide evidence of such insurance coverages.

- 9.2 All liability insurance policies procured and maintained by DVAC protecting against claims arising out of the operations, actions, or obligations of DVAC in providing Ambulance Services or related services arising directly or indirectly therefrom shall name the Town as an additional insured.
- 9.3 DVAC shall be responsible for providing workers' compensation insurance and or Volunteer Ambulance Workers' Benefit Insurance coverage for its employees. TOWN is not responsible for paying for and/or providing Volunteer Ambulance Workers' Benefit Insurance to any DVAC personnel above any amounts paid to DVAC by TOWN as set forth above.

10. NO WAIVER

The failure by either party to insist upon the strict performance of any covenant, duty, agreement or condition of this Agreement, or to exercise any right or remedy consequent upon a breach of the same, shall not constitute a waiver of any such breach or of such, or any other covenant, agreement, term or condition. By notice duly given, any party may, but shall be under no obligation to, waive any of its rights or any conditions of its obligations under this Agreement or any duty, obligation or covenant of any other party. No such waiver shall affect or alter the remainder of this Agreement, but each and every covenant, duty, agreement and condition of this Agreement shall continue in full force and effect with respect to any other existing, or subsequent, breach.

11. TERMINATION

- 11.1 Either party may terminate this Agreement for convenience upon sixty (60) days written notice to the other party.
- 11.2 Either party may terminate this Agreement for material breach upon (30) days written notice to the other party.
- 11.3 Upon termination, the pro-rated amount of the Contract Fee previously paid by the Town for the balance of the Term after the effective date of the termination will be reimbursed to the Town by DVAC. If, upon the effective date of termination, the Town owes DVAC payment for Ambulance Services rendered through date of termination, such payment will be made by the Town to DVAC within thirty (30) days of the effective date of termination.

12. ASSIGNMENT

In accordance with the provisions of Section 109 of the General Municipal Law, DVAC is hereby prohibited from assigning, transferring, conveying, subletting or otherwise disposing of this Agreement or its right, title or interest in this Agreement, or its power to execute this Agreement, to any other person without the previous consent in writing of the Town.

13. NOTICE

All notices, offers and communications required or permitted by this Agreement shall be made in writing and shall be deemed given when personally delivered to a party, or mailed by certified mail, return receipt requested, addressed as follows:

To the Town:

Town Board of the Town of Duanesburg
Town of Duanesburg Town Hall
5853 Western Turnpike
Duanesburg, New York, 12056

With a copy to:

Terresa M. Bakner, Esq.
Whiteman Osterman & Hanna, LLP
One Commerce Plaza, Suite 1900
Albany, New York, 12260

To DVAC:

Duanesburg Volunteer Ambulance Corps
P.O. Box 130
Delanson, New York, 12053

With a copy to:

Timothy Hannigan, Esq.
Hannigan Law Firm, PLLC
388 Kenwood Avenue
Delmar, New York 12054

By notice given pursuant to this paragraph, either party may designate any further or different address to which subsequent notices, offers or other communications shall be sent.

14. SEVERABILITY

To the extent permitted by law, if any provision of this Agreement is deemed by a Court of competent jurisdiction to be void or voidable, all other provisions shall remain enforceable and effective.

15. VENDOR STATUS

DVAC is a vendor to the Town. DVAC is neither an agent nor a department of the Town. Nothing herein should be deemed to infer that an employment or agency relationship exists between the parties.

16. MISCELLANEOUS

16.1 This Agreement sets forth the entire agreement and understanding between the parties as to the matters contained herein, and merges and supersedes all prior discussions, agreements and understandings of every kind and nature among them. No party shall be bound by any condition, definition or representation other than for which is expressly provided in this Agreement.

16.2 This Agreement shall be subject to the laws of the State of New York.

16.3 The captions and section heading used in this Agreement are for reference related purposes only to aid the reader and are without substantive effect to the terms that follow thereafter.

TOWN OF DUANESBURG

**DUANESBURG VOLUNTEER
AMBULANCE CORPS, INC.**

By: _____
Roger Tidball, Supervisor

By: _____

ADDENDUM A – SCHEDULE OF FEES
January 1, 2022 through December 31, 2022

ALS CHARGES

ALS TRANSPORT LEVEL 1	\$
ALS TRASPORT LEVEL 2	\$

BLS CHARGES

BLS REFUSAL – MVA	\$
BLS EMERGENCY TRANSPORT	\$
BLS NON-EMERGENCY TRANSPORT	\$
MILEAGE (loaded)	\$