
MONTGOMERY COUNTY SANITARY DISTRICT NO. 1 WASTEWATER TREATMENT PLANT Clarifier Rehabilitation and Leachate Acceptance Modification Project

PROJECT MANUAL

FOR

CONTRACT NO. 2 – GENERAL CONSTRUCTION

BOARD MEMBERS

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PROJECT ENGINEER

John M. McDonald Engineering



Project No. 42-1702

Re-Bid Issue: January 2018



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WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION
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DIVISION 0 - BIDDING AND CONTRACT REQUIREMENTS

**MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
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**00010
ADVERTISEMENT FOR BIDS**

PLEASE TAKE NOTICE: That the Montgomery County Sanitary District No. 1 on the 8th day of February, 2018, at 11:00 AM at the wastewater treatment plant, 28 Old Station Road, Nelliston, New York, will publicly open and read all sealed bids and proposals received pursuant to this notice for the furnishing of work, labor and materials in connection with the **Clarifier Rehabilitation and Leachate Acceptance Modification Project Contract No. 2 – General Construction**.

Work for Contract No. 2 – General Construction will consist of furnishing all materials, equipment and labor necessary for the replacement, repair and rehabilitation of the primary and secondary clarifier internal components including all associated cleaning, media blasting, welding, priming, painting, and weir replacement. This work also includes furnishing all materials, equipment and labor necessary to install new 4" DIP buried and above grade leachate piping and valves, 6" DIP piping and valves and associated pipe supports. All work is defined in greater detail in the Contract Documents.

Each bid must be submitted on the official forms included in the Project Manual and will be sealed within an opaque envelope. The name of the bidder and "**Montgomery County Sanitary District No. 1 Contract No. 2 – General Construction Bid Enclosed**" shall be clearly marked on such envelope. If a Bid is sent by mail or other delivery system, both the outside packaging and sealed envelope containing the bid within shall be clearly marked "**Montgomery County Sanitary District No. 1 Contract No. 2 – General Construction Bid Enclosed**".

Plans and specifications may be requested by phone (518-463-2192) or fax (518-449-3068) and obtained Monday – Friday, between the hours of 7:30 AM and 5:30 PM at the office of the following:

Dataflow Reprographics, 71 Fuller Road, Albany, New York 12205

A fee of \$25.00 Dollars will be required for each complete set of bidding documents (Project Manual), which includes electronic copies of the plans and specifications and a paper copy of "Package to Be Submitted with Bid". McDonald Engineering will accept payment in the form of a check or money order. Checks are to be made payable to McDonald Engineering. No cash payments will be accepted.

The Bidding documents may be obtained through bidder's own express carrier service account. No information will be mailed using U.S. Postal Service. All bidders' information, deposits, fees, and account information must be received by **Dataflow Reprographic** prior to sending.

Accompanying each bid must be a bid bond or certified check made payable to the order of the **Montgomery County Sanitary District No. 1** in the amount of five (5%) percent of the bidder's maximum bid amount as a guarantee that if the contract is awarded to a bidder, said successful bidder will comply with the Notice to Bidders and the specification for the contract in accordance therewith. Said bid bond or certified check will be retained by the **Montgomery County Sanitary District No. 1**, and upon completion of the contract, in accordance with said specifications, the said bid bond or certified check will be returned to the bidder.

On failure to comply with the Notice to Bidders and the specifications for said contract, the successful bidder shall forfeit the deposit as liquidated damages to the **Montgomery County Sanitary District No. 1**.

Every bid or proposal must contain a non-collusion affidavit executed by the bidder or his authorized representative. Separate Performance and Payment Bonds, each equal to one hundred (100%) percent of the contract sum, will be required of the successful bidder.

The bidder to whom the contract will be awarded shall execute the contract and furnish required sureties within ten (10) days after the date of Notice of Award. Failure to do so will result in Bidder's forfeit of contract work and bid security. No bidder may withdraw his bid within forty-five (45) days after the date set for the opening thereof. Any bid may be withdrawn prior to the above scheduled time for the opening of bids, or any authorized postponement thereof.

The District and its representatives will not offer or supply anyone the list of people that have obtained a copy of these bid specifications or cost estimates for the project prior to the opening of the bids. **NO EXCEPTIONS ARE MADE TO THIS POLICY.**

The Montgomery County Sanitary District No. 1 reserves the right to waive any informalities in or to reject any or all bids submitted or to award the contract to the lowest responsible bidder who in the District's judgment makes the most advantageous proposal to the Montgomery County Sanitary District No. 1.

A Pre-Bid Meeting will be held on the 25th day of January 2018 at 9:00 AM at the WWTP.

All sealed bids or proposals must be received by the District Clerk of the Montgomery County Sanitary District No. 1 prior to 11:00 AM on February 8, 2018, the date on which all sealed bids or proposals will be publicly opened and read aloud.

BY ORDER OF THE MCSD#1 Wastewater Board

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00100
INSTRUCTIONS TO BIDDERS

1. Defined Terms

Terms used in these Instructions to Bidders which are defined in Standard General Conditions of Construction Contract (#1910-8, 1996 ed.) have meanings assigned to them in General Conditions. Term *Bidder* means one who submits Bid directly to Owner, as distinct from subbidder who submits bid to Bidder. Term *Successful Bidder* means lowest, qualified, responsible & responsive Bidder to whom Owner (based on Owner's evaluation as hereinafter provided) makes award. Term *Bidding Documents* includes Advertisement or Invitation to Bid, Instructions to Bidders, Bid Form & proposed Contract Documents (including all Addenda issued prior to Bid receipt).

2. Copies of Bidding Documents

2.1 Complete sets of Bidding Documents in number and/or sum stated in Advertisement or Invitation to Bid may be obtained from Owner.

2.2 Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assume responsibility for errors or misinterpretations resulting from use of incomplete sets of Bidding Documents.

2.3 Owner & Engineer, in making copies of Bidding Documents available on above terms, do so only for obtaining Bids on Work & do not confer a license or grant for any other use.

2.4 All sections requiring Bidder to supply information, signature, bid bond, etc., are included in this Project Manual. These sections include 00300 Bid Form, 00410 Bid Bond, 00480 Non-Collusion Affidavit, 00495 Contractor's Qualifications Statement. All requested information must be provided for bid to be considered for acceptance.

3. Qualifications of Bidders

To demonstrate qualifications to perform Work and expedite award of Bid, each Bidder must complete and submit the enclosed AIA Document A305, "Contractor's Qualifications Statement" (Section 00495) with bid package. Section regarding contractor's financial information need not be completed with bid submittal, but must be available from apparent successful bidder within 48 hours of Owner's request.

4. Examination of Contract Documents & Site

4.1 It is the responsibility of each Bidder before submitting a Bid, to (a) examine Contract Documents thoroughly, (b) visit site to become familiar with local conditions that may affect cost, progress, performance or furnishing of Work, (c) consider federal, state & local Laws & Regulations that may affect cost, progress, performance or furnishing of Work, (d) study & carefully correlate Bidder's observations with Contract Documents & (e) promptly notify Engineer of all conflicts, errors, ambiguities or discrepancies which Bidder has discovered in Contract Documents & other related documents.

4.2 Information/data reflected in Contract Documents with respect to Underground Facilities at or contiguous to site is based upon information/data furnished to Owner & Engineer by owners of such Underground Facilities or others. Owner does not assume responsibility for accuracy or completeness thereof unless it is expressly provided otherwise in Supplementary Conditions.

4.3 Provisions concerning responsibilities for adequacy of data furnished to prospective Bidders on subsurface conditions, Underground Facilities & other physical conditions, & possible changes in Contract Documents due to differing conditions appear in ¶4.02 & 4.03 of General Conditions.

4.4 Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests & studies & obtain any additional information & data which pertain to physical conditions (surface, subsurface & Underground Facilities) at, or contiguous to, site or otherwise which may affect cost, progress, performance or furnishing of Work & which Bidder deems necessary to determine its Bid for performing & furnishing Work in accordance with time, price & other terms & conditions of Contract Documents.

4.5 On request in advance, Owner will provide each Bidder access to site to conduct such explorations & tests as each Bidder deems necessary for submission of Bid. Bidder shall fill all holes, clean up & restore site to its former condition upon completion of such explorations.

4.6 Lands upon which Work is to be performed, rights-of-way & easements for access thereto & other lands designated for use by Contractor in performing Work are identified in Contract Documents. All additional lands & access thereto required for temporary construction facilities or storage of materials & equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained & paid for by Owner unless otherwise provided in Contract Documents.

4.7 Submission of Bid will constitute incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception Bid is premised upon performing & furnishing Work required by Contract Documents & such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by Contract Documents, & that Contract Documents are sufficient in scope & detail to indicate & convey understanding of all terms & conditions for performance & furnishing of Work.

5. Interpretations & Addenda

5.1 All questions about meaning or intent of Contract Documents are to be directed to Engineer. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received Bidding Documents. Questions received less than five (5) days prior to date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral & other interpretations or clarifications will be without legal effect.

5.2 Addenda may also be issued to modify Bidding Documents as deemed advisable by Owner or Engineer.

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6. Bid Security

6.1 Each Bid must be accompanied by Bid security made payable to Owner in an amount of 5% of Bidder's maximum Bid price & in form of a certified or bank check or a Bid Bond issued by a surety meeting requirements of ¶5.01 of General Conditions.

6.2 Bid security of Successful Bidder will be retained until such Bidder has executed Agreement & furnished required contract security, whereupon Bid security will be returned. If Successful Bidder fails to execute & deliver Agreement & furnish required contract security within ten (10) days after Notice of Award, Owner may annul Notice of Award & Bid security of that Bidder will be forfeited. Bid security of other Bidders whom Owner believes to have reasonable chance of receiving award may be retained by Owner until earlier of seventh (7th) day after Effective Date of Agreement or forty-sixth (46th) day after Bid opening, whereupon Bid security furnished by such Bidders will be returned. Bid security with Bids which are not competitive will be returned within seven (7) days after Bid opening.

7. Contract Time

7.1 Number of days within which, or dates by which, Work is to be substantially completed & also completed & ready for final payments (Contract Time) are stated in Agreement.

8. Liquidated Damages

Liquidated damage provisions (if any) are set forth in Agreement.

9. Substitute or *Or-Equal* Items

Contract, if awarded, will be on basis of materials & equipment described in Drawings or specified in Specifications without consideration of possible substitute or *or-equal* items. Whenever it is indicated in Drawings or specified in Specifications that a substitute or *or-equal* item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after Effective Date of Agreement. Procedure for submission of any such application by Contractor & consideration by Engineer is set forth in Paragraph 6.05 of General Conditions & may be supplemented in General Requirements.

10. Subcontractors, Suppliers & Others

10.1 If Supplementary Conditions require identity of certain subcontractors, suppliers, other persons/organizations (including those who are to furnish principal items of material & equipment) to be submitted to Owner in advance of specified date prior to Effective Date of Agreement, apparent Successful Bidder, & any other Bidder so requested, shall within five (5) days after Bid opening submit to Owner list of all such subcontractors, suppliers & other persons & organizations proposed for those portions of Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects & other evidence of qualification for each such subcontractor, supplier, person or organization if requested by Owner. If Owner/Engineer after due investigation has reasonable objection to any proposed subcontractor, supplier, other person or organization, either may before Notice of Award is given request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall

submit acceptable substitute with no increase or decrease in Bid price.

If apparent Successful Bidder declines to make such substitution, Owner may award contract to next lowest Bidder who proposes to use acceptable subcontractors, suppliers & other persons & organizations. Declining to make requested substitutions will not constitute grounds for sacrificing Bid security of any Bidder. Any subcontractor, supplier, other person or organization listed & to whom Owner/Engineer does not make written objection prior to giving Notice of Award will be deemed acceptable to Owner & Engineer subject to revocation of such acceptance after Effective Date of Agreement as provided in ¶6.06 General Conditions.

11. Bid Form

11.1 Bid Form & other forms to be completed are stapled together & included in a plastic sleeve for convenience. Bidder is responsible to ensure all forms are completed and all are submitted in sleeve with the entire project manual at bid opening.

11.2 All blanks on Bid Form must be completed in ink or by typewriter. Where space has been provided, the Bid price(s) on the form must be stated in words and numerals; in case of a conflict, words will take precedence.

11.3 Bids by corporations must be executed in corporate name by president, vice-president (or other corporate officer accompanied by evidence of authority to sign) & corporate seal must be affixed & attested by secretary. Corporate address & state of incorporation must be shown below signature.

11.4 Bids by partnerships must be executed in partnership name & signed by a partner, whose title must appear under signature & official address of partnership must be shown below signature.

11.5 All names must be typed or printed below signature.

11.6 Bid shall contain an acknowledgment of receipt of all Addenda (numbers of which must be filled in on Bid Form).

11.7 Address & telephone number for communications regarding Bid must be shown.

11.8 Noncollusion Bidding Certification must be signed.

12. Submission of Bids

Bids shall be submitted at time & place indicated in Notice to Bidders & be enclosed in opaque sealed envelope, marked with Project title, contract no., & name & address of Bidder & accompanied by Bid security & other required documents. If Bid is sent via mail or other delivery system, sealed envelope shall be enclosed in separate envelope with notation *BID ENCLOSED* on face of it.

13. Modification & Withdrawal of Bids

13.1 Bids may be modified or withdrawn by an appropriate document duly executed (in manner that a Bid must be executed) & delivered to place where Bids are to be submitted at any time prior to opening of Bids.

13.2 If, prior to award, or within seventy-two (72) hours after Bids are opened (whichever is shorter), any Bidder files a duly signed, written notice with Owner & promptly

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thereafter demonstrates to reasonable satisfaction of Owner that there was a material & substantial mistake in preparation of its Bid, that Bidder may withdraw its Bid & Bid security will be returned. Thereafter, that Bidder will be disqualified from further bidding on Work to be provided under Contract Documents.

14. Opening of Bids

Bids will be opened & (unless obviously nonresponsive) read aloud publicly. An abstract of amounts of Bids will be made available to Bidders after opening of Bids.

15. Bids to Remain Subject to Acceptance

All bids will remain subject to acceptance for forty-five (45) days after day of Bid opening, but Owner may, in its sole discretion, release any Bid & return Bid security prior to that date.

16. Award of Contract

16.1 Owner reserves right to reject any & all Bids, to waive any & all informalities not involving price, time or changes in Work, & right to disregard all nonconforming, nonresponsive, unbalanced or conditional Bids. Owner reserves right to reject Bid of any Bidder if Owner believes that it would not be in best interest of Project to make award to that Bidder, whether because Bid is not responsive or Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Discrepancies in multiplication of units of Work & unit prices will be resolved in favor of unit prices. Discrepancies between indicated sum of any column of figures & correct sum thereof will be resolved in favor of correct sum.

16.2 In evaluating Bids, Owner will consider qualifications of Bidders, whether or not Bids comply with prescribed requirements & such alternates, unit prices & other data as may be requested in Bid Form or prior to Notice of Award.

16.3 Owner may consider qualifications & experience of subcontractors, suppliers, & other persons & organizations proposed for those portions of Work as to which identity of subcontractors, suppliers & other persons & organizations must be submitted as provided in Supplementary Conditions. Owner also may consider operating costs, maintenance requirements, performance data & guarantees of major items of materials & equipment proposed for incorporation in Work when such data is required to be submitted prior to Notice of Award.

16.4 Owner may conduct such investigations as he deems necessary to assist in evaluation of any Bid & to establish responsibility, qualifications & financial ability of Bidders, proposed subcontractors, suppliers & other persons & organizations to perform & furnish Work in accordance with Contract Documents to Owner's satisfaction within prescribed time.

16.5 If contract is to be awarded, it will be awarded to lowest Bidder whose evaluation by Owner indicates to Owner that award will be in best interests of Project.

16.6 If contract is to be awarded, Owner will give Successful Bidder Notice of Award within forty-five (45) days after Bid opening.

17. Contract Security

5.01 of General Conditions set forth Owner's requirements as to performance & payment Bonds. When Successful Bidder delivers executed Agreement to Owner, it must be accompanied by required performance & payment Bonds. Separate Performance and Payment Bonds, each equal to 100% of the contract sum will be required of the Successful Bidder.

18. Signing of Agreement

When Owner gives Notice of Award to Successful Bidder, it will be accompanied by required number of unsigned counterparts of Agreement with all other written Contract Documents attached. Within ten (10) days thereafter Contractor shall sign & deliver required number of counterparts of Agreement & attached documents to Owner with required Bonds. Within ten (10) days thereafter Owner shall deliver one fully signed counterpart to Contractor. Each counterpart is to be accompanied by complete set of Drawings with appropriate identification.

19. Pre-Bid Site Visit

In submitting bid, Bidder represents that Bidder has visited site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the work. Site will be open for potential bidders to visit during the bidding period. A non-mandatory pre-bid meeting, if scheduled, is shown in the Advertisement for Bids.

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00300
Bid Form

For: MCSD#1
Clarifier Rehabilitation & Leachate Acceptance Project
Contract No. 2 – General Construction

From: _____
(Name of Bidder)

Date Bid Submitted: _____

The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with OWNER in the form included in the Contract Documents to perform and finish all work as specified or indicated in the Contract Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

BIDDER accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for forty-five days after the day of Bid opening. BIDDER will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within ten days after the date of OWNER's Notice of Award.

In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

BIDDER has examined copies of all the Bidding Documents including Addenda. BIDDER has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the work.

BIDDER has studied carefully all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions, in or relating to existing surface or subsurface structures at or contiguous to the site (except underground facilities) which have been identified in the Supplementary Conditions as provided in 4.02 of the General Conditions. BIDDER accepts the determination set forth in paragraph SC-4.02 of the Supplementary Conditions of the extent of the technical data contained in such reports and drawings upon which BIDDER is entitled to rely as provided in 4.02 of the General Conditions. BIDDER acknowledges that such reports and drawings are not contract documents and may not be complete for BIDDER's purposes. BIDDER acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown, or indicated, in the bidding documents with respect to underground facilities at or contiguous to the site. BIDDER has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by BIDDER and safety precautions and programs incident thereto. BIDDER does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for the performance and furnishing of the work in accordance with the times, price and other terms and conditions of the contract documents.

BIDDER agrees that the Work will be substantially completed and ready for final payment in accordance with 14.04 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement. BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified in the Agreement.

BIDDER is aware of the general nature of work to be performed by OWNER and others at the site that relates to work for which this Bid is submitted as indicated in the contract documents.

BIDDER has correlated the information known to BIDDER. Information and observations obtained from visits to the site, reports and drawings identified in the contract documents and all additional examinations, investigations, explorations, tests, studies and data with the contract documents.

BIDDER has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that BIDDER has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to BIDDER and the contract documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the work for which this Bid is submitted.

This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

If the undersigned fails to execute the contract and furnish a satisfactory bond as stated in the foregoing Notice to Bidders, within ten days from the date of notification of the awarding of the contract, the OWNER may, at its option, determine that the undersigned has forfeited the contract and the certified check or bid bond accompanying this proposal shall be invoked as liquidated damages for such failure; otherwise it shall be returned to the undersigned.

BID FORM MUST BE INSERTED IN PROJECT MANUAL

**MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
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Contract No. 2 – General Construction

Contractor Name: _____

1a. Base Bid Amount

Pay Item No.	Pay Item Description	Section No.	Est. Qty.	Unit	Unit Price	Total Price
1	General Conditions	-	1	LS		
2	Primary Clarifier Rehabilitation Base Bid	-	1	LS		
3	Secondary Clarifier Rehabilitation Base Bid	-	1	LS		
4	Allowance No. 1	01020	1	LS	\$20,000	\$20,000
Base Bid Total						

1a. Base Bid Amount

For work of this contract, the BIDDER proposes to perform the work required in accordance with contract documents, complete, for the lump sum price of:

Total Base Bid Amount (written in numbers):

\$ _____

Total Base Bid Amount (written in words):

_____ Dollars and _____ Cents.

1b. Alternate 1 Bid Amount

Pay Item No.	Pay Item Description	Section No.	Est. Qty.	Unit	Unit Price	Total Price
1b	Primary Clarifier Alt 1 Bid - New Skimmers	-	1	LS		
Bid Total						

1b. Alternate 1 Bid Amount

For work of this contract, the BIDDER proposes to perform the work required in accordance with contract documents, complete, for the lump sum price of:

Total Alternate 1 Bid Amount (written in numbers):

\$ _____

Total Alternate 1 Bid Amount (written in words):

_____ Dollars and _____ Cents.

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1c. Alternate 2 Bid Amount

Pay Item No.	Pay Item Description	Section No.	Est. Qty.	Unit	Unit Price	Total Price
1c	Primary Clarifier Alt 2 Bid – Floor & Squeegee	-	1	LS		
Bid Total						

1c. Alternate 2 Bid Amount

For work of this contract, the BIDDER proposes to perform the work required in accordance with contract documents, complete, for the lump sum price of:

Total Alternate 2 Bid Amount (written in numbers):

\$ _____

Total Alternate 2 Bid Amount (written in words):

_____ Dollars and _____ Cents.

1d. Alternate 3 Bid Amount

Pay Item No.	Pay Item Description	Section No.	Est. Qty.	Unit	Unit Price	Total Price
1d	Primary Clarifier Alt 3 Bid – center column, feedwell & rake arms	-	1	LS		
Bid Total						

1d. Alternate 3 Bid Amount

For work of this contract, the BIDDER proposes to perform the work required in accordance with contract documents, complete, for the lump sum price of:

Total Alternate 3 Bid Amount (written in numbers):

\$ _____

Total Alternate 3 Bid Amount (written in words):

_____ Dollars and _____ Cents.

1e. Alternate 4 Bid Amount

Pay Item No.	Pay Item Description	Section No.	Est. Qty.	Unit	Unit Price	Total Price
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BID FORM MUST BE INSERTED IN PROJECT MANUAL

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1e	Primary Clarifier Alt 4 Bid - bridges	-	1	LS		
Bid Total						

1e. Alternate 4 Bid Amount

For work of this contract, the BIDDER proposes to perform the work required in accordance with contract documents, complete, for the lump sum price of:

Total Alternate 4 Bid Amount (written in numbers):

\$ _____

Total Alternate 4 Bid Amount (written in words):

_____ Dollars and _____ Cents.

1f. Alternate 5 Bid Amount

Pay Item No.	Pay Item Description	Section No.	Est. Qty.	Unit	Unit Price	Total Price
1f	Secondary Clarifier Alt 5 Bid – New skimmers	-	1	LS		
Bid Total						

1f. Alternate 5 Bid Amount

For work of this contract, the BIDDER proposes to perform the work required in accordance with contract documents, complete, for the lump sum price of:

Total Alternate 5 Bid Amount (written in numbers):

\$ _____

Total Alternate 5 Bid Amount (written in words):

_____ Dollars and _____ Cents.

1g. Alternate 6 Bid Amount

Pay Item No.	Pay Item Description	Section No.	Est. Qty.	Unit	Unit Price	Total Price
1g	Secondary Clarifier Alt 6 Bid - center column, feedwell & rake arms	-	1	LS		
Bid Total						

1g. Alternate 6 Bid Amount

**MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION**

For work of this contract, the BIDDER proposes to perform the work required in accordance with contract documents, complete, for the lump sum price of:

Total Alternate 6 Bid Amount (written in numbers):

\$ _____

Total Alternate 6 Bid Amount (written in words):

_____ Dollars and _____ Cents.

1h. Alternate 7 Bid Amount

Pay Item No.	Pay Item Description	Section No.	Est. Qty.	Unit	Unit Price	Total Price
1h	Secondary Clarifier Alt 7 Bid – Floor & Squeegee	-	1	LS		
Bid Total						

1h. Alternate 7 Bid Amount

For work of this contract, the BIDDER proposes to perform the work required in accordance with contract documents, complete, for the lump sum price of:

Total Alternate 7 Bid Amount (written in numbers):

\$ _____

Total Alternate 7 Bid Amount (written in words):

_____ Dollars and _____ Cents.

1i. Alternate 8 Bid Amount

Pay Item No.	Pay Item Description	Section No.	Est. Qty.	Unit	Unit Price	Total Price
1i	Secondary Clarifier Alt 8 Bid - Bridges	-	1	LS		
Bid Total						

1i. Alternate 8 Bid Amount

For work of this contract, the BIDDER proposes to perform the work required in accordance with contract documents, complete, for the lump sum price of:

Total Alternate 8 Bid Amount (written in numbers):

\$ _____

**MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION**

Total Alternate 8 Bid Amount (written in words):

_____ Dollars and _____ Cents.

1j. Alternate 9 Bid Amount

Pay Item No.	Pay Item Description	Section No.	Est. Qty.	Unit	Unit Price	Total Price
1j	Secondary Clarifier Alt 9 Bid – Electrical Work	-	1	LS		
Bid Total						

1j. Alternate 9 Bid Amount

For work of this contract, the BIDDER proposes to perform the work required in accordance with contract documents, complete, for the lump sum price of:

Total Alternate 9 Bid Amount (written in numbers):

\$ _____

Total Alternate 9 Bid Amount (written in words):

_____ Dollars and _____ Cents.

1k. Alternate 10 Bid Amount

Pay Item No.	Pay Item Description	Section No.	Est. Qty.	Unit	Unit Price	Total Price
1k	Leachate Piping Work Alt 10 Bid	-	1	LS		
Bid Total						

1k. Alternate 10 Bid Amount

For work of this contract, the BIDDER proposes to perform the work required in accordance with contract documents, complete, for the lump sum price of:

Total Alternate 10 Bid Amount (written in numbers):

\$ _____

Total Alternate 10 Bid Amount (written in words):

_____ Dollars and _____ Cents.

**MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION**

Note: The Owner shall choose any combination of base bid plus alternate(s) for contract award, based upon available funding. Owner retains the right to reject all bids.

2. Bid Deposit

In accordance with the conditions established in the foregoing Notice to Bidders, attached is a certified check or bid bond drawn on

_____ for the sum of 5% of the total base bid amount or

\$ _____

3. Acknowledgment of Receipt of Addenda

Addenda #	Date	Contractor's Signature
_____	_____	_____
_____	_____	_____
_____	_____	_____

**MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION**

4. Address/Telephone and Telefax Number for Communications Regarding Bid

Name: _____

Address: _____

Telephone: _____ Telefax: _____

5. Noncollusion Affidavit Signed (Section 00480)

_____ Yes _____ No

6. Contractors Qualification Statement completed (section 00495)

_____ Yes _____ No

7. Bidder's Signature

If Bidder is an Individual:

If Bidder is a Partnership:

By: _____
(signature)

(print or type firm name)

(print or type name (and title if applicable))

By: _____

(signature of General Partner)

DBA: _____

(print or type name & title)

Address: _____

Address: _____

Phone _____

Phone _____

If Bidder is a Corporation:

(print or type Corporate name)

(state of incorporation)

By: _____

(signature of President or Vice President)

(print or type name & title)

(Corporate Seal)

Attest _____

(signature by Corp. secretary/asst. secretary)

(print or type name & title)

Address: _____

Phone: _____

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address):*

SURETY *(Name and Address of Principal Place of Business):*

OWNER *(Name and Address):*

BID

Bid Due Date:

Description *(Project Name and Include Location):*

BOND

Bond Number:

Date *(Not earlier than Bid due date):*

Penal sum _____ \$ _____
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

Bidder's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

00430

BID BOND

(Attach Bid surety to this Page)

00480

NON-COLLUSION AFFIDAVIT

**MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION**

**00480
Noncollusion Affidavit**

Every bid or proposal made to a political subdivision of the state or any public department, agency or official thereof where competitive bidding is required by statute, rule, regulation or local law, for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under the penalties of perjury.

By submission of this bid, each bidder and each person signing on behalf of any bidder, or in the case of a joint bid each party thereto, certifies that:

such bid is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation;

such bid is genuine and not collusive or sham;

said bidder has not directly induced or solicited any other bidder to put in a false or sham bid and has not directly or indirectly colluded, conspired, connived or agreed with any bidder or anyone else to put in a sham bid, nor that anyone shall refrain from bidding;

said bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the bid price of said bidder or of any other bidder, nor to fix any overhead, profit or cost element of such bid price, nor of that of any other bidder, nor to secure any advantage against the public body awarding the contract or anyone interested in the proposed contract;

all statements contained in such bid are true;

and, further, that said bidder has not directly or indirectly, submitted his bid price or any breakdown

thereof, nor the contents thereof, nor divulged information or data relative thereto, nor paid and will not pay fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, nor to any member or agent thereof, nor to any other individual except to such persons or persons as have a partnership or other financial interest with said bidder in his general business.

No bid shall be considered for award, neither shall any award be made where above items have not been complied with.

If the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons why the above items have not been complied with. The bid shall not be considered for award, neither shall any award be made, unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made, or the appointed designee, determines that such disclosure was not made for the purpose of restricting competition.

Any bid hereafter made to any political subdivision of the state or any public department, agency or official thereof by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation or local law, and where such bid contains the certification referred to in this section, shall be deemed to have been authorized by the board of directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to noncollusion as the act and deed of the corporation.

Signature : _____

Print Name: _____

Title _____

Business Address of Bidder _____

Dated: _____

NONCOLLUSION AFFIDAVIT MUST BE INSERTED IN PROJECT MANUAL

00495

QUALIFICATIONS STATEMENT

QUALIFICATIONS STATEMENT

THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT PERMITTED BY LAWS AND REGULATIONS

1. SUBMITTED BY:

Official Name of Firm: _____

Address: _____

2. SUBMITTED TO: _____

3. SUBMITTED FOR: _____

Owner: _____

Project Name: _____

TYPE OF WORK: _____

4. CONTRACTOR'S CONTACT INFORMATION

Contact Person: _____

Title: _____

Phone: _____

Email: _____

5. AFFILIATED COMPANIES:

Name: _____

Address: _____

6. TYPE OF ORGANIZATION:

SOLE PROPRIETORSHIP

Name of Owner: _____

Doing Business As: _____

Date of Organization: _____

PARTNERSHIP

Date of Organization: _____

Type of Partnership: _____

Name of General Partner(s): _____

CORPORATION

State of Organization: _____

Date of Organization: _____

Executive Officers:

- President: _____

- Vice President(s): _____

- Treasurer: _____

- Secretary: _____

LIMITED LIABILITY COMPANY

State of Organization:

Date of Organization:

Members:

JOINT VENTURE

Sate of Organization:

Date of Organization:

Form of Organization:

Joint Venture Managing Partner

- Name:

- Address:

Joint Venture Managing Partner

- Name:

- Address:

Joint Venture Managing Partner

- Name:

- Address:

7. LICENSING

Jurisdiction: _____

Type of License: _____

License Number: _____

Jurisdiction: _____

Type of License: _____

License Number: _____

8. CERTIFICATIONS

CERTIFIED BY:

Disadvantage Business Enterprise: _____

Minority Business Enterprise: _____

Woman Owned Enterprise: _____

Small Business Enterprise: _____

Other (_____): _____

9. BONDING INFORMATION

Bonding Company: _____

Address: _____

Bonding Agent: _____

Address: _____

Contact Name: _____

Phone: _____

Aggregate Bonding Capacity: _____

Available Bonding Capacity as of date of this submittal: _____

10. FINANCIAL INFORMATION

Financial Institution: _____

Address: _____

Account Manager: _____

Phone: _____

INCLUDE AS AN ATTACHMENT AN AUDITED BALANCE SHEET FOR EACH OF THE
LAST 3 YEARS

11. CONSTRUCTION EXPERIENCE:

Current Experience:

List on **Schedule A** all uncompleted projects currently under contract (If Joint Venture list each participant's projects separately).

Previous Experience:

List on **Schedule B** all projects completed within the last 5 Years (If Joint Venture list each participant's projects separately).

Has firm listed in Section 1 ever failed to complete a construction contract awarded to it?

YES NO

If YES, attach as an Attachment details including Project Owner's contact information.

Has any Corporate Officer, Partner, Joint Venture participant or Proprietor ever failed to complete a construction contract awarded to them in their name or when acting as a principal of another entity?

YES NO

If YES, attach as an Attachment details including Project Owner's contact information.

Are there any judgments, claims, disputes or litigation pending or outstanding involving the firm listed in Section 1 or any of its officers (or any of its partners if a partnership or any of the individual entities if a joint venture)?

YES NO

If YES, attach as an Attachment details including Project Owner's contact information.

12. EQUIPMENT:

MAJOR EQUIPMENT:

List on **Schedule C** all pieces of major equipment available for use on Owner's Project.

I HEREBY CERTIFY THAT THE INFORMATION SUBMITTED HEREWITH, INCLUDING ANY ATTACHMENTS, IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME OF ORGANIZATION: _____

BY: _____

TITLE: _____

DATED: _____

NOTARY ATTEST:

SUBSCRIBED AND SWORN TO BEFORE ME

THIS _____ DAY OF _____, 20__

NOTARY PUBLIC - STATE OF _____

MY COMMISSION EXPIRES: _____

REQUIRED ATTACHMENTS

1. Schedule A (Current Experience).
2. Schedule B (Previous Experience).
3. Schedule C (Major Equipment).
4. Audited balance sheet for each of the last 3 years for firm named in Section 1.
5. Evidence of authority for individuals listed in Section 7 to bind organization to an agreement.
6. Resumes of officers and key individuals (including Safety Officer) of firm named in Section 1.
7. Required safety program submittals listed in Section 13.
8. Additional items as pertinent.

SCHEDULE A

CURRENT EXPERIENCE

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR FOR
CONSTRUCTION CONTRACT (STIPULATED PRICE)**

Prepared by



Issued and Published Jointly by



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INTRODUCTION

This Agreement between Owner and Contractor for Construction Contract (Stipulated Price) (“Agreement”) has been prepared for use with the Suggested Instructions to Bidders for Construction Contracts (“Instructions to Bidders”) (EJCDC® C-200, 2013 Edition); the Suggested Bid Form for Construction Contracts (“Bid Form”) (EJCDC® C 410, 2013 Edition); and the Standard General Conditions of the Construction Contract (“General Conditions”) (EJCDC® C-700, 2013 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the others. See also the Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition), and the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

In construction contracting, as a general matter the “agreement” is the legal instrument executed (signed) by the project owner and the construction contractor, binding the parties to the terms of the contract. See CSI Project Delivery Practice Guide (2011), Section 11.1.2, p. 210, and CSI Construction Specification Practice Guide (2011), Section 5.1, p. 75. This EJCDC Agreement form serves that basic function, by identifying the parties and Contract Documents, and establishing the Contract Price and Contract Times. This Agreement form is specifically intended for stipulated price (fixed price) contracts—that is, contracts in which Owner and Contractor identify specific lump sums and unit prices as Contractor’s compensation for performing the Work. For construction contracts in which the Contract Price is primarily based on costs incurred during construction, users should select EJCDC® C-525, Agreement between Owner and Contractor for Construction Contract (Cost-Plus).

This Agreement form is drafted to be flexible enough to be used on projects that are competitively bid, and for public and private contracts that are negotiated or awarded through a proposal process or otherwise. On competitively bid projects, the following documentary information would typically be made available to bidders:

- Bidding Requirements, which include the Advertisement or invitation to bid, the Instructions to Bidders, and the Bid Form that is suggested or prescribed, all of which provide information and guidance for all Bidders, and Bid Form supplements (if any) such as Bid Bond and Qualifications Statement.
- Contract Documents, which include the Agreement, performance and payment bonds, the General Conditions, the Supplementary Conditions, the Drawings, and the Specifications.
- Documents referred to in the Supplementary Conditions or elsewhere as being of interest to bidders for reference purposes, but which are not Contract Documents.

Together, the Bidding Requirements and the Contract Documents are referred to as the Bidding Documents. (The terms “Bidding Documents,” “Bidding Requirements,” and “Contract Documents” are defined in Article 1 of the General Conditions.) The Bidding Requirements are not Contract Documents because much of their substance pertains to the relationships prior to the award of the Contract and has little effect or impact thereafter. Many contracts are awarded without even going through a bidding process, and thus have no Bidding Requirements, illustrating that the bidding items are typically superfluous to the formation of a binding and comprehensive construction contract. In some cases, however, a bid or proposal will contain numerous line items and their prices; in such case the actual bid or proposal document may be attached as an exhibit to the Agreement to avoid extensive rekeying.

Suggested provisions are accompanied by “Notes to User” and bracketed notes and prompts to assist in preparing the Agreement. The provisions have been coordinated with the other forms produced by EJCDC. Much of the language should be usable on most projects, but modifications and additional provisions will often be necessary. When modifying the suggested language or writing additional provisions, the user must check the other documents thoroughly for conflicts and coordination of terms, and make appropriate revisions in all affected documents.

All parties involved in construction projects benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location; doing so frequently leads to confusion and unanticipated legal consequences. When preparing documents for a construction project, careful attention should be given to the guidance provided in EJCDC® N-122/AIA® A521, Uniform Location of Subject Matter (2012 Edition), available at no charge from the EJCDC website, www.ejcdc.org, and from the websites of EJCDC’s sponsoring organizations.

CSI MasterFormat™ (50-Division format) designates Document “00 52 XX” for various forms of the owner-contractor agreement. If this format is used, the first page of the Agreement would be numbered 00 52 13-1 (or other appropriate third pair of numbers, in accordance with MasterFormat™).

Instructions and restrictions regarding the use of this document are set out in the License Agreement that accompanied the document at the time of purchase. To prepare the Agreement for inclusion in a Project Manual or for use in a specific contractual engagement, (1) remove the cover pages and this Introduction, (2) fill in Project-specific information and make revisions to the Agreement, following the guidance in the Notes to Users and bracketed notes and prompts, and the advice of legal counsel, and (3) delete the Notes to Users and bracketed notes and prompts.

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between Montgomery County Sanitary District No. 1 (“Owner”) and _____ (“Contractor”).

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Work for Contract No. 2 – General Construction will consist of furnishing all materials, equipment and labor necessary for the replacement, repair and rehabilitation of the primary and secondary clarifier internal components including all associated cleaning, media blasting, welding, priming, painting, and weir replacement. This work also includes furnishing all materials, equipment and labor necessary to install new 4” DIP buried and above grade leachate piping and valves, 6” DIP piping and valves and associated pipe supports. All work is defined in greater detail in the Contract Documents.

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

**Montgomery County Sanitary District No. 1
Clarifier Rehabilitation and Leachate Acceptance Modification Project
Contract No. 2 – General Construction**

ARTICLE 3 – ENGINEER

3.01 The part of the Project that pertains to the Work has been designed by John M. McDonald Engineering

3.02 The Owner has retained John M. McDonald Engineering (“Engineer”) to act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Dates*

- A. The Work will be substantially completed on or before **November 30, 2017**, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before **December 31, 2017**.
- ~~B. Parts of the Work shall be substantially completed on or before the following Milestone(s):~~
- ~~1. Milestone 1 [event & date/days]~~
 - ~~2. Milestone 2 [event & date/days]~~
 - ~~3. Milestone 3 [event & date/days]~~

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
1. Substantial Completion: Contractor shall pay Owner **\$500** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
 2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner **\$200** for each day that expires after such time until the Work is completed and ready for final payment.
 3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.
 - ~~4. Milestones: Contractor shall pay Owner \$ for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for achievement of Milestone 1, until Milestone 1 is achieved.~~
- ~~B. Bonus: Contractor and Owner further recognize the Owner will realize financial and other benefits if the Work is completed prior to the time specified for Substantial Completion. Accordingly, Owner and Contractor agree that as a bonus for early completion, Owner shall pay Contractor \$ for each day prior to the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract) that the Work is substantially complete. The maximum value of the bonus shall be limited to \$.~~

~~4.04 *Special Damages*~~

- ~~A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.~~

~~B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.~~

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Work, other than Unit Price Work, a lump sum of: \$ [REDACTED].

All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.

B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

Unit Price Work					
Item No.	Description	Unit	Estimated Quantity	Unit Price	Extended Price
1	General Requirements	1	LS		
2	Primary Clarifier Rehabilitation	1	LS		
3	Secondary Clarifier Rehabilitation	1	LS		
4	Leachate Acceptance Modifications	1	LS		
5	Allowance	1	LS	\$60,000	\$60,000
Total of all Extended Prices for Unit Price Work					\$

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

~~C. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment) \$ [REDACTED].~~

~~D. For all Work, at the prices stated in Contractor’s Bid, attached hereto as an exhibit.~~

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 30th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
 - a. 95 percent of Work completed (with the balance being retainage); ~~If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage;~~ and
 - b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion **of the entire construction to be provided under the Contract Documents**, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

7.01 All amounts not paid when due shall bear interest at the rate of 6 percent per annum.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 8, inclusive).
 - 2. Performance bond (pages 1 to 3, inclusive).
 - 3. Payment bond (pages 1 to 3, inclusive).
 - 4. General Conditions (pages 1 to 65, inclusive).
 - 5. Supplementary Conditions (pages 1 to 4, inclusive).
 - 6. Specifications as listed in the table of contents of the Project Manual.
 - 7. Drawings (not attached but incorporated by reference) consisting of sheets with each sheet bearing the following general title: MCS#1 – Contract No. 2 – General Construction ~~(or)~~ and the Drawings listed on the attached sheet index.
 - 8. Addenda (numbers to , inclusive).

9. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages 1 to 8, inclusive).
10. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on 2017 (which is the Effective Date of the Contract).

OWNER:

CONTRACTOR:

Montgomery County

By: _____

By: _____

Title: Matthew Ossenfort, County Executive

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

License No.: _____
(where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

00610

PERFORMANCE BOND

**Engineers Joint Contract Documents Committee
Design and Construction Related Documents
2010 Performance Bond (EJCDC C-610)**

Instructions and License Agreement

Instructions

Before you use any EJCDC document:

1. Read the License Agreement. You agree to it and are bound by its terms when you use the EJCDC document.
2. Make sure that you have the correct version for your word processing software.

How to Use:

1. While EJCDC has expended considerable effort to make the software translations exact, it can be that a few document controls (e.g., bold, underline) did not carry over.
2. Similarly, your software may change the font specification if the font is not available in your system. It will choose a font that is close in appearance. In this event, the pagination may not match the control set.
3. If you modify the document, you must follow the instructions in the License Agreement about notification.

License Agreement

You should carefully read the following terms and conditions before using this document. Commencement of use of this document indicates your acceptance of these terms and conditions. If you do not agree to them, you should promptly return the materials to the vendor, and your money will be refunded.

The Engineers Joint Contract Documents Committee ("EJCDC") provides **EJCDC Design and Construction Related Documents** and licenses their use worldwide. You assume sole responsibility for the selection of specific documents or portions thereof to achieve your intended results, and for the installation, use, and results obtained from **EJCDC Design and Construction Related Documents**.

The content of the Performance Bond (EJCDC C-610, 2010) was prepared in 2009-10 by the American Institute of Architects (AIA) with the cooperation of EJCDC, the Surety and Fidelity Association of America, the National Association of Surety Bond Producers, and other industry

organizations, based on standard bond forms originally prepared through the joint efforts of the Surety Association of America, EJCDC, the Associated General Contractors of America, and AIA. The Performance Bond (EJCDC C-610) is published by EJCDC under agreement with AIA. All rights are reserved.

You acknowledge that you understand that the text of the **EJCDC Performance Bond** (EJCDC C-610, 2010) has important legal consequences and that consultation with an attorney is recommended with respect to use or modification of the text.

License:

You have a limited non-exclusive license to:

1. Use a duly purchased Performance Bond (EJCDC C-610, 2010) on any number of machines owned, leased or rented by your company or organization.
2. Use such Performance Bond for bona fide contractual and bonding purposes.
3. Copy such Performance Bond into any electronic or printed form for backup or modification purposes.

You agree that you will not

represent that any document that you generate from the Performance Bond (EJCDC C-610, 2010) is an EJCDC document unless (i) the document text is used without alteration or (ii) all additions and changes to, and deletions from, the text are clearly shown.

You may not use, copy, modify, or transfer the Performance Bond (EJCDC C-610, 2010) or any copy, modification or merged portion thereof, in whole or in part, except as expressly provided for in this license. Reproduction of the Performance Bond (EJCDC C-610, 2010) or any other EJCDC Design and Construction Related Document, in printed or electronic format for resale or educational purposes is expressly prohibited.

If you transfer possession of any copy, modification or merged portion of the Performance Bond (EJCDC C-610, 2010), or any other EJCDC Design and Construction Related Document, to another party, your license is automatically terminated.

Term:

The license is effective until terminated. You may terminate it at any time by destroying the Performance Bond (EJCDC C-610, 2010) together with all copies, modifications and merged portions in any form. The license will also terminate upon conditions set forth elsewhere in this License Agreement or if you fail to comply with any term or condition of this License Agreement. You agree upon such termination to destroy the Performance Bond (EJCDC C-610, 2010) along with

all copies, modifications and merged portions in any form.

Limited Warranty:

EJCDC warrants that if the Performance Bond (EJCDC C-610, 2010) or any other **EJCDC Design and Construction Related Documents** has been provided in compact disc or other physical media format, the media is furnished free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of delivery to you as evidenced by a copy of your receipt.

There is no other warranty of any kind, either expressed or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose. Some states do not allow the exclusion of implied warranties, so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

EJCDC does not warrant that the functions contained in Performance Bond (EJCDC C-610, 2010) or any other **EJCDC Design and Construction Related Documents** will meet your requirements or that the operation of Performance Bond (EJCDC C-610, 2010) or any other **EJCDC Design and Construction Related Documents** will be uninterrupted or error free.

Limitations of Remedies:

EJCDC's entire liability and your exclusive remedy shall be:

1. the replacement of any document not meeting EJCDC's "Limited Warranty" which is returned to EJCDC's selling agent with a copy of your receipt, or
2. if EJCDC's selling agent is unable to deliver a replacement document, you may terminate this Agreement by returning the EJCDC Document and your money will be refunded.

In no event will EJCDC be liable to you for any damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use or inability to use the Performance Bond (EJCDC C-610, 2010) or any other **EJCDC Design and Construction Related Document** even if EJCDC has been advised of the possibility of such damages, or for any claim by any other party.

Some states do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.

General:

You may not sublicense, assign, or transfer this license except as expressly provided in this License Agreement. Any attempt otherwise to sublicense, assign, or transfer any of the rights, duties, or obligations hereunder is void.

This License Agreement shall be governed by the laws of the State of Virginia. Should you have any questions concerning this Agreement, you may contact EJCDC by writing to:

Arthur Schwartz, Esq.
General Counsel
EJCDC Copyright Administrator
c/o National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314
Phone: (703) 684-2845
Fax: (703) 836-4875
e-mail: aschwartz@nspe.org

You acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between us which supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this agreement

PERFORMANCE BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: None See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

(seal)

Contractor's Name and Corporate Seal

(seal)

Surety's Name and Corporate Seal

By: _____

Signature

By: _____

Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____

Signature

Attest: _____

Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of

the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within

two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

00615

PAYMENT BOND

**Engineers Joint Contract Documents Committee
Design and Construction Related Documents
2010 Payment Bond (EJCDC C-615)**

Instructions and License Agreement

Instructions

Before you use any EJCDC document:

1. Read the License Agreement. You agree to it and are bound by its terms when you use the EJCDC document.
2. Make sure that you have the correct version for your word processing software.

How to Use:

1. While EJCDC has expended considerable effort to make the software translations exact, it can be that a few document controls (e.g., bold, underline) did not carry over.
2. Similarly, your software may change the font specification if the font is not available in your system. It will choose a font that is close in appearance. In this event, the pagination may not match the control set.
3. If you modify the document, you must follow the instructions in the License Agreement about notification.

License Agreement

You should carefully read the following terms and conditions before using this document.

Commencement of use of this document indicates your acceptance of these terms and conditions. If you do not agree to them, you should promptly return the materials to the vendor, and your money will be refunded.

The Engineers Joint Contract Documents Committee ("EJCDC") provides **EJCDC Design and Construction Related Documents** and licenses their use worldwide. You assume sole responsibility for the selection of specific documents or portions thereof to achieve your intended results, and for the installation, use, and results obtained from **EJCDC Design and Construction Related Documents**.

The content of the Payment Bond (EJCDC C-615, 2010) was prepared in 2009-10 by the American Institute of Architects (AIA) with the cooperation of EJCDC, the Surety and Fidelity Association of America, the National Association of Surety Bond Producers, and other industry organizations, based on standard bond forms originally

prepared through the joint efforts of the Surety Association of America, EJCDC, the Associated General Contractors of America, and AIA. The Payment Bond (EJCDC C-615) is published by EJCDC under agreement with AIA. All rights are reserved.

You acknowledge that you understand that the text of the **EJCDC Payment Bond** (EJCDC C-615, 2010) has important legal consequences and that consultation with an attorney is recommended with respect to use or modification of the text.

License:

You have a limited non-exclusive license to:

1. Use a duly purchased Payment Bond (EJCDC C-615, 2010) on any number of machines owned, leased or rented by your company or organization.
2. Use such Payment Bond for bona fide contractual and bonding purposes.
3. Copy such Payment Bond into any electronic or printed form for backup or modification purposes.

You agree that you will not represent that any document that you generate from the Payment Bond (EJCDC C-615, 2010) is an EJCDC document unless (i) the document text is used without alteration or (ii) all additions and changes to, and deletions from, the text are clearly shown.

You may not use, copy, modify, or transfer the Payment Bond (EJCDC C-615, 2010) or any copy, modification or merged portion thereof, in whole or in part, except as expressly provided for in this license. Reproduction of the Payment Bond (EJCDC C-615, 2010) or any other EJCDC Design and Construction Related Document, in printed or electronic format for resale or educational purposes is expressly prohibited.

If you transfer possession of any copy, modification or merged portion of the Payment Bond (EJCDC C-615, 2010), or any other EJCDC Design and Construction Related Document, to another party, your license is automatically terminated.

Term:

The license is effective until terminated. You may terminate it at any time by destroying the Payment Bond (EJCDC C-615, 2010) together with all copies, modifications and merged portions in any form. The license will also terminate upon conditions set forth elsewhere in this License Agreement or if you fail to comply with any term or condition of this License Agreement. You agree upon such termination to destroy the Payment Bond (EJCDC C-615, 2010) along with all copies, modifications and merged portions in any form.

Limited Warranty:

EJCDC warrants that if the Payment Bond (EJCDC C-615, 2010) or any other **EJCDC Design and Construction Related Documents** has been provided in compact disc or other physical media format, the media is furnished free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of delivery to you as evidenced by a copy of your receipt.

There is no other warranty of any kind, either expressed or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose. Some states do not allow the exclusion of implied warranties, so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

EJCDC does not warrant that the functions contained in Payment Bond (EJCDC C-615, 2010) or any other **EJCDC Design and Construction Related Documents** will meet your requirements or that the operation of Payment Bond (EJCDC C-615, 2010) or any other **EJCDC Design and Construction Related Documents** will be uninterrupted or error free.

Limitations of Remedies:

EJCDC's entire liability and your exclusive remedy shall be:

1. the replacement of any document not meeting EJCDC's "Limited Warranty" which is returned to EJCDC's selling agent with a copy of your receipt, or
2. if EJCDC's selling agent is unable to deliver a replacement document, you may terminate this Agreement by returning the EJCDC Document and your money will be refunded.

In no event will EJCDC be liable to you for any damages, including any lost profits, lost savings or other incidental

or consequential damages arising out of the use or inability to use the Payment Bond (EJCDC C-615, 2010) or any other **EJCDC Design and Construction Related Document** even if EJCDC has been advised of the possibility of such damages, or for any claim by any other party.

Some states do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.

General:

You may not sublicense, assign, or transfer this license except as expressly provided in this License Agreement. Any attempt otherwise to sublicense, assign, or transfer any of the rights, duties, or obligations hereunder is void.

This License Agreement shall be governed by the laws of the State of Virginia. Should you have any questions concerning this Agreement, you may contact EJCDC by writing to:

Arthur Schwartz, Esq.
General Counsel
EJCDC Copyright Administrator
c/o National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314
Phone: (703) 684-2845
Fax: (703) 836-4875
e-mail: aschwartz@nspe.org

You acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between us which supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this agreement.

PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form: None See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or

(2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond

shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

00700

STANDARD GENERAL CONDITIONS

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer

has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:*
1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:*
1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).
- E. *Furnish, Install, Perform, Provide:*
1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
 - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
- 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part

by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; or
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

- c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after

becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings*: The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
1. include at least the specific coverages provided in this Article.
 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 - 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 - 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 - 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 Supervision and Superintendence

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 Labor; Working Hours

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 Services, Materials, and Equipment

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and

guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 "Or Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
 - C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
 - D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
 - E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
 - F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

- O. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
 - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
 - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
 - E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
 - F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or

exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to

provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples:*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
 1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
 5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
 6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
 7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.

- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop

Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during

or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.04.C.2.a and 11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim

submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable

thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes

other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

- B. *Cash Allowances*: Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will

include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications:*
1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner:*

- 1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
- 2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount

remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

- A. *Application for Payment:*
 - 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for

expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

MONTGOMERY COUNTY SANITARY DISTRICT No. 1
WASTEWATER TREATMENT PLANT
CONTRACT No. 2 – GENERAL CONSTRUCTION

SECTION 00800
SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement Standard General Conditions of Construction Contract (EJCDC C-700) & other provisions of Contract Documents as indicated below. All provisions not so amended or supplemented remain in full force & effect.

The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings indicated below, which are applicable to both the singular and plural thereof.

SC-1.01.A.3 Add the following language at the end of Paragraph 1.01.A.3:

The Application for Payment form to be used on this Project is form AIA G702 and G703.

SC-1.01.A.8 Add the following language at the end of Paragraph 1.01.A.8:

The Change Order form to be used on this Project is form AIA G701.

SC-1.01.A.21 Delete Paragraph 1.01.A.21 in its entirety.

SC-2.02.A Amend Paragraph 2.02.A to read as follows:

- A. Owner shall furnish to Contractor up to 3 printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

SC-3.05.A Amend Paragraph 3.05.A to read as follows:

- A. The data furnished by Owner or Engineer to Contractor that may be relied upon are limited to the printed copies (also known as hard copies) issued by Engineer or the electronic files issued by Engineer. Printed copies of Engineer issued electronic files, or portions thereof, by Contractor are to be relied upon only if the applicable specifications and drawings are printed in their entirety, unaltered, and drawings to proper scale. Any conclusion or information obtained or derived from data other than described herein as reliable, will be at the Contractor's sole risk. If there is a discrepancy between the electronic files issued by the Engineer and the hard copies issued by Engineer, the hard copies will govern. Reliability of electronic data furnished by Contractor to Owner or Engineer will be at the sole discretion of the receiving party.

SC-5.03.C. Add the following new paragraph immediately after Paragraph 5.03.B:

- C. Underground utilities are known to exist within project boundaries. These include, but are not limited to, storm sewers, underground telephone & water mains. It is Contractor's responsibility to contact Dig Safely New York a minimum of 72 hours prior to beginning any work to locate any & all utilities. Contractor is to provide protection for all utilities during construction.

SC-6.03.K. Add the following new paragraph immediately after Paragraph 6.03.J:

- K. The limits of liability for insurance required by paragraph 6.03 of General Conditions shall provide coverage for not less than the following amounts or greater where required by Law & Regulations:

1. Workers' Compensation, and related coverages under paragraphs 6.03.A.1 through A3 of the General Conditions:
 - a. State: Statutory
 - b. Applicable Federal
(e.g. Longshoremen's) Statutory
 - c. Employer's Liability \$1,000,000
2. Contractor's General Liability under paragraphs 6.03.B.1 through B.3 and 6.03.C.1 through 6.03.C8 of the General Conditions which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody, and control of the Contractor:
 - a. General Aggregate \$2,000,000
 - b. Products - Completed
Operations Aggregate \$1,000,000
 - c. Personal and Advertising Injury \$1,000,000
 - d. Each Occurrence

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- e. (Bodily Injury and Property Damage) \$1,000,000
- f. Property Damage liability Insurance will provide Explosion, Collapse, and Underground coverages where applicable.
- g. Excess or Umbrella Liability
 - 1) General Aggregate \$5,000,000
 - 2) Each Occurrence \$5,000,000
- 3. Automobile Liability under paragraph 6.03.D of the General Conditions:
 - a. Combined Single Limit of \$1,000,000
- 4. The Contractual Liability coverage required by paragraph 6.03.H of the General Conditions shall provide coverage for not less than the following amounts:
 - a. Bodily Injury:
 - Each person \$2,000,000
 - Each Accident \$2,000,000
 - b. Property Damage:
 - Each Accident \$2,000,000
 - Annual Aggregate \$2,000,000
- 5. Owner and Engineer shall be included on policy as additionally insured.

SC-6.04.A. Delete Paragraph 6.04.A and 6.04B in its entirety and insert the following in its place:

- A. Contractor's general liability carrier shall issue separate Protective Liability Policy covering Owner and Engineer for not less than a single Limit of \$1,000,000.

SC-6.05.A. Delete Paragraph 6.05.A in its entirety and insert the following in its place:

- A. Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. Contractor shall be responsible for any deductible or self-insured retention. This insurance shall:
 - 1. include the interests of Owner, Contractor, Subcontractors, Engineer, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or loss payee;
 - 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework, and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by these Supplementary Conditions.
 - 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 - 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 - 5. allow for partial utilization of the Work by Owner;
 - 6. include testing and startup;
 - 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued; and
 - 8. comply with the requirements of Paragraph 6.05.B of the General Conditions.

SC-6.07 Delete Paragraph 6.07 in its entirety.

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SC-6.09.B Add a new paragraph immediately after Paragraph 6.09.A:

- B. Owner is exempt from payment of sales and compensating use taxes of the State of New York and of cities and counties thereof on all materials to be incorporated into the Work.
 - 1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.
 - 2. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

SC-7.08.B Add the following new paragraph immediately after Paragraph 7.08.A:

- B. Owner will obtain and pay for any local building permits required.

SC-8.02.A.1 Delete Paragraphs 8.02.A.1-3 in their entirety and replace with the following:

- 1. Each Prime Contractor shall be responsible for coordination of their work and the work of their subcontractors with the work of other Prime Contractors on the Site to ensure a safe, efficient working environment and to prevent interferences and delays. This responsibility includes scheduling delivery of materials, storage of materials, sequencing of construction involving different crafts, resolving interface issues between crafts, scheduling testing, and all other aspects of the Work that do not impact the design or function of the Work. Improper coordination by any Contractor shall not relieve Contractor from performing work under this Contract in accordance with the Plans and Specifications.

SC-8.04 Add the following new paragraph immediately after Paragraph 8.03:

- A. Should Contractor cause damage to the work or property of any other contractor at the Site, or should any claim arising out of Contractor's performance of the Work at the Site be made by any other contractor against Contractor, Owner, Engineer, or the construction coordinator, then Contractor (without involving Owner, Engineer, or construction coordinator) shall either (1) remedy the damage, (2) agree to compensate the other contractor for remedy of the damage, or (3) remedy the damage and attempt to settle with such other contractor by agreement, or otherwise resolve the dispute by arbitration or at law.
- B. Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner, Engineer, the construction coordinator and the officers, directors, partners, employees, agents and other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages (including, but not limited to, fees and charges of engineers, architects, attorneys, and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any other contractor against Owner, Engineer, consultants, or the construction coordinator to the extent said claim is based on or arises out of Contractor's performance of the Work. Should another contractor cause damage to the Work or property of Contractor or should the performance of work by any other contractor at the Site give rise to any other Claim, Contractor shall not institute any action, legal or equitable, against Owner, Engineer, or the construction coordinator or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from Owner, Engineer, or the construction coordinator on account of any such damage or Claim.
- C. If Contractor is delayed at any time in performing or furnishing the Work by any act or neglect of another contractor, and Owner and Contractor are unable to agree as to the extent of any adjustment in Contract Times attributable thereto, Contractor may make a Claim for an extension of times in accordance with Article 12. An extension of the Contract Times shall be Contractor's exclusive remedy with respect to Owner, Engineer, and construction coordinator for any delay, disruption, interference, or hindrance caused by any other contractor. This paragraph does not prevent recovery from Owner, Engineer, or construction coordinator for activities that are their respective responsibilities.

SC-13.03.E Amend Paragraph 13.03.E.1 to read as follows:

- 1. the total Bid price any one item of Unit Price Work amounts to 5 percent or more of the Total Contract Price and the actual final quantity of that particular item of Unit Price Work differs by more than 25 percent from the Bid quantity of such item as shown in the Agreement. Such variation in unit price of a particular item shall apply only to that quantity in excess of 125 percent of original Contract item quantity, or in case of a decrease below 75 percent, to the actual amount; and

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SC-15.01. Delete paragraph 15.01.D.1 in its entirety and insert the following in its place:

1. Engineer will, within ten days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application. Thirty days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of paragraph 15.01.E) become due and when due will be paid by Owner to Contractor.

SC-15.09 Add Section 15.09 to Article 15 of the General Conditions as follows:

SC-15.09 Certification of Wage Rates

- A. Contractor shall pay wages to all those under his employ as provided for by Section 220 of Labor Law of State of New York & as set forth in attached Prevailing Wage Rate Schedules.
- B. Certified payroll documentation is to be submitted with all Contractor Applications for Payment between the first and final payment requests, inclusive.

SC-17.01 Delete Paragraphs 17.01.B.1, 17.01.B.2, and 17.01.B.3 in their entirety and insert the following in their place:

1. elects in writing to demand arbitration of the claim, pursuant to paragraph SC-17.02.

SC-17.02 Add the following new paragraph immediately after Paragraph 17.01.

SC-17.02 Arbitration

- A. All Claims or counterclaims, disputes, or other matters in question between Owner and Contractor arising out of or relating to the Contract Documents or the breach thereof (except for Claims which have been waived by the making or acceptance of final payment as provided by Paragraph 15.07) including but not limited to those not resolved under the provisions of Paragraphs SC-17.01A and 17.01.B will be decided by arbitration in accordance with the rules of The American Arbitration Association and subject to the conditions and limitations of this Paragraph SC-17.02. This agreement to arbitrate and any other agreement or consent to arbitrate entered into will be specifically enforceable under the prevailing law of any court having jurisdiction.
- B. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitrator or arbitration provider, and a copy will be sent to Engineer for information, in accordance with Article 17.01.B.
- C. The award rendered by the arbitrator(s) shall be consistent with the agreement of the parties, in writing, and include:
(i) a concise breakdown of the award; (ii) a written explanation of the award specifically citing the Contract Document provisions deemed applicable and relied on in making the award.
- D. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal.
- E. The fees and expenses of the arbitrators and any arbitration service shall be shared equally by Owner and Contractor.

DIVISION 1 - GENERAL REQUIREMENTS

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SECTION 01010
SUMMARY OF WORK

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & General Requirement & Special Requirement Specification sections, apply to work of this section.

PROJECT/WORK IDENTIFICATION

Project Name is *MCS#1, Clarifier Rehabilitation & Leachate Acceptance Modification Contract No. 2 – General Construction*, as shown on Contract Documents prepared by John M. McDonald Engineering, PC, 7 South Church Street, Schenectady, NY, 12305.

Contract Documents indicate work of Contract & related requirements & conditions that impact the project. Related requirements & conditions that are indicated on Contract Documents include, but are not necessarily limited to the following: Existing site conditions & restrictions on use of site.

Summary of Work of this Project, as defined in greater detail by other provisions of Contract Documents, is summarized as follows:

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A. General

1. Provide temporary facilities necessary for completion and protection of work under this contract, including maintenance of flows.
2. Construct and maintain all erosion control and environmental protection measures as shown or specified.
3. Provide all necessary survey, stakeout and layout required to perform work under the contract. Owner's representative will provide horizontal and vertical datum control information.
4. Provide quality assurance/quality control testing required for work and materials incorporated into the project under this contract.
5. Protection of underground facilities and utilities, including any repairs required as a result of this work. Contractor shall expose electric lines and other utilities in the path of the proposed leachate forcemain prior to installing the new piping. Any conflicts shall be conveyed to Engineer.
6. Provide all labor, equipment and materials to clean and restore work areas and disturbed areas.
7. The District will assist in treatment unit isolation and draining prior to work of this contract. Contractor shall supply a portable engine driven pump of sufficient size to dewater the tanks in a reasonable amount of time. Depending on size of pump, clarifier dewatering and cleaning may take 1-2 days each. The District will require a minimum of one week notice prior to removing a tank from service.

8. The primary clarifiers can be isolated with existing gates and valves by Owner, so no bypass pumping will be required. The secondary clarifiers cannot be effectively isolated, so contractor will be responsible for bypass pumping system.
9. Testing of the painted metal in the clarifiers has been performed and the primer has been found to contain lead. Contractor shall follow all EPA, DOL and OSHA requirements for lead paint removal and disposal. The Contractor, in submitting his bid, accepts responsibility for proper disposal of any hazardous waste and acknowledges the importance of containment and environmental protection in accordance with the standards set forth by the Owner and Federal, State and Local governments. The painted metal surfaces shall be media blasted to remove paint and rust in accordance with the surface preparation requirements of the specified paint manufacturer.
10. Furnish all labor, equipment and materials necessary to restore asphalt pavement removed for pipe trench and conduit work. Trenches shall be neatly saw cut, 8" of crushed stone base placed and 2.5" of Type 3 binder and 1.5" of Type 6 top shall be placed and compacted.
11. Provide all startup, testing and training services for the new equipment.

B. Primary Clarifiers Base Bid (both units)

1. Refurbish clarifier internal components, including scum beach, effluent launders, v-notch weirs, scum baffles and supports including pressure washing, media blasting, priming and two finish coats of paint as specified. Only one unit may be taken out of service at a time. New stainless steel screws shall be used to replace all fasteners on perimeter scum baffles.
2. Repair weirs and any other metal parts by cutting out the bad sections and welding metal patches of same thickness as ordered by engineer. Bid shall include 15 SF of metal patching and 60 LF of welding.
3. Provide all startup, testing and training services for the new equipment.

C. Primary Clarifiers Alternate 1 Bid (both units)

1. Furnish and install new clarifier internal components including full surface scum skimmers and associated supports, as shown and specified.

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D. Primary Clarifiers Alternate 2 Bid (both units)

1. Refurbish the concrete tank bottom including removal of the existing 2" layer of grout and placement of a bonding agent and new grout. Rake arms shall be adjusted to provide a level sweep when rotating and squeegees shall be adjusted for proper height.
2. Remove existing and furnish and install new rake blade squeegees with adjustable 20 gauge, 304 stainless steel with neoprene squeegees.

E. Primary Clarifiers Alternate 3 Bid (both units)

1. Refurbish clarifier internal components, including center column, feedwell and rake arms including pressure washing, media blasting, priming and two finish coats of paint as specified. The rake arms in the bottom of clarifiers will need to be removed in order to properly prepare and paint all sides. Contractor shall level rake arms upon reinstallation to provide a uniform clearance to the tank bottom for sweeper installation.
2. Repair metal parts by cutting out the bad sections and welding metal patches of same thickness as ordered by engineer. Bid shall include 15 SF of metal patching and 60 LF of welding.

F. Primary Clarifiers Alternate 4 Bid (both units)

1. Refurbish the existing bridge/walkway including pressure washing, media blasting, priming and two finish coats of paint as specified.

G. Secondary Clarifiers Base Bid (both units)

1. Refurbish clarifier internal components, including scum beach, effluent launders, scum baffles and supports including pressure washing, media blasting, priming and two finish coats of paint as specified. Only one unit may be taken out of service at a time. New stainless steel screws shall be used to replace all fasteners on perimeter scum baffles.
2. Repair weirs and any other metal parts by cutting out the bad sections and welding metal patches of same thickness as ordered by engineer. Bid shall include 50 SF of metal patching and 200 LF of welding.
3. Remove and replace existing v-notch weirs with new FRP weirs, as specified.

H. Secondary Clarifiers Alternate 5 Bid (both units)

1. Furnish and install new clarifier internal components including full surface scum skimmers and associated supports, as shown and specified.

I. Secondary Clarifiers Alternate 6 Bid (both units)

1. Refurbish clarifier internal components, including center column, feedwell and rake arms including pressure washing, media blasting, priming and two finish coats of paint as specified. The rake arms in the bottom of clarifiers will need to be removed in order to properly prepare and paint all sides. Contractor shall level rake arms upon reinstallation to provide a uniform clearance to the tank bottom for sweeper installation.
2. Repair metal parts by cutting out the bad sections and welding metal patches of same thickness as ordered by engineer. Bid shall include 50 SF of metal patching and 200 LF of welding.

J. Secondary Clarifiers Alternate 7 Bid (both units)

1. Refurbish the concrete tank bottom including removal of the existing 2" layer of grout and placement of a bonding agent and new grout. Rake arms shall be adjusted to provide a level sweep when rotating and squeegees shall be adjusted for proper height.
2. Remove existing and furnish and install new rake blade squeegees with adjustable 20 gauge, 304 stainless steel with neoprene squeegees.

K. Secondary Clarifiers Alternate 8 Bid (both units)

1. Refurbish the existing bridge/walkway including pressure washing, media blasting, priming and two finish coats of paint as specified.

L. Secondary Clarifiers Alternate 9 Bid (both units)

1. Replace buried electrical conduits with new PVC conduits and pull new wires for secondary clarifier drives, lights, receptacles, controls and jib crane from MCC in Control Building. Existing above grade conduit may be reused. Contractor shall make a new weather-tight connection between existing and new conduit above grade.
2. Furnish and install new PVC conduit through holes to be cored in Control Building exterior wall (above grade/floor level), up interior wall, across ceiling, through one interior block wall, to MCC1 for all secondary clarifier circuits called out in item 8 above. Interior conduit runs are approximately 80 lf, each.

M. Leachate Piping Work – Alternate 10 Bid

1. Furnish and install new buried and above grade 4" DIP piping including fittings, insulation, supports and valves as shown and specified. This work includes cutting into an existing buried 4" forcemain pipe and the pump can be turned off to relieve pressure on the line.
2. Furnish and install new 6" DIP piping including fittings, supports and valves as shown and specified, within the existing digester tank. Provide all startup, testing and training services for the new equipment.

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N. Allowance No. 1 (\$20,000)

1. Work under this allowance shall be for the welding of steel plates, patch panels and structural members on the clarifier internal components above the amounts stated for each above. Work shall be preapproved by Engineer and shall be based on the time and materials to complete the repairs. All other clarifier work shall be paid under other bid items.

Definition of extent of Contract Work: Extent of work is indicated in Contract Documents. Local custom & trade-union jurisdictional settlements do not control scope-of-work in this Contract. When a potential jurisdictional dispute or similar potential work interruption is first identified or threatened, affected parties of Contract shall promptly negotiate a reasonable settlement which will avoid or minimize such pending interruption & its delays or losses.

Summary by Reference: Work can be summarized by reference to Contract, General Conditions, Supplementary Conditions, Specification sections, Drawings, Addenda & Modifications to Contract Documents issued subsequent to initial printing of this Project Manual, & including but not necessarily limited to printed material referenced by any of these. It is recognized that work of Contract is unavoidably affected or influenced by governing regulations, natural phenomenon, including weather conditions & other forces outside contract documents.

In cases of discrepancy between Contract Drawings & Contract Specifications, interpretations shall be given preference in the following order:

1. Addenda (later dates take precedence).
2. Technical Specifications
3. Supplementary Conditions
4. General Conditions
5. Contract Drawings (Schedules or Notes to take precedence over other data shown on aforesaid drawings.)

CONTRACTOR'S USE OF PREMISES

General: CONTRACTOR shall limit use of premises to Work indicated, so as to allow for OWNER occupancy & other appropriate uses.

Use of Site: Confine operations at site to areas permitted under Contract. Portions of site beyond areas on which work is indicated are not to be disturbed.

Do not unreasonably encumber site with materials or equipment.

Work accomplished under this contract shall progress in such a manner as to keep any & all inconveniences to a minimum. Construction work shall further be planned, scheduled & accomplished to minimize interruptions of municipal services.

Temporary Facilities: Contractor is responsible to provide the necessary temporary facilities required to complete the work under this contract.

OWNER Occupancy: Cooperate with OWNER during construction operations to minimize interruption of services to OWNER. Any interruption of service is to be planned, scheduled & approved by OWNER.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

General: Notify Treatment Plant Chief Operator and Engineer prior to commencement of work.

Precaution shall be taken during construction to prevent damage to existing facilities.

Disposal of materials shall be in accordance with all applicable codes & regulations.

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**SECTION 01020
ALLOWANCES**

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & other Div. 1 Specification Sections, apply to this Section.

SUMMARY

This Section specifies administrative & procedural requirements governing handling & processing allowances.

Selected materials & equipment & in some cases, their installation are shown & specified in Contract Documents by allowances. Allowances have been established in lieu of additional requirements & to defer selection of actual materials & equipment to later date when additional information is available for evaluation. Additional requirements, if necessary, will be issued by Change Order.

SELECTION & PURCHASE

At earliest feasible date after Contract award, advise Engineer of date when final selection & purchase of each product or system described by an allowance must be completed in order to avoid delay in performance of Work.

When requested by Engineer, obtain proposals for each allowance for use in making final selections; include recommendations that are relevant to performance of Work.

Purchase products & systems as selected by Engineer from designated supplier.

SUBMITTALS

Submit proposals for purchase of products or systems included in allowances.

Submit invoices or delivery slips to indicate actual quantities of materials delivered to site for fulfillment of each allowance. Submit invoices to indicate actual labor and equipment hours and rates utilized for performance of work under each allowance.

PAYMENT

Payment will be made for the actual cost of time and materials utilized for the performance of work under each allowance item specified. Contractor may add Profit and Overhead in accordance with the General Conditions.

UNUSED MATERIALS

Return unused materials to manufacturer or supplier for credit to Owner, after installation has been completed & accepted.

Where it is not economically feasible to return unused material for credit & when requested by Engineer, prepare unused material for Owner's storage & deliver to Owner's storage space as directed. Otherwise, disposal of excess material is Contractor's responsibility.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

INSPECTION

Inspect products covered by an allowance promptly upon delivery for damage or defects.

PREPARATION

Coordinate materials & their installation for each allowance with related materials & installations to ensure that each allowance item is completely integrated & interfaced with related construction activities.

SCHEDULE OF ALLOWANCES

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Allowance No. 1 – (\$20,000) Correcting of unforeseen problems, clarifier concrete repairs, steel repairs in excess of the quantity called out in the Summary of Work or other work related to this contract as ordered by Engineer.

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SECTION 01027
APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & other Div. 1 Specification Sections, apply to this Section.

SUMMARY

This Section specifies administrative & procedural requirements governing Contractor's Applications for Payment. Contractor's Construction Schedule & Submittal Schedule are included in *Submittals*.

SCHEDULE OF VALUES

Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.

Correlate line items in the Schedule of Values with other required administrative schedules & forms, including:

- Contractor's construction schedule.
- Application for Payment form.
- List of subcontractors.

Submit Schedule of Values to ENGINEER at earliest feasible date, but in no case later than date scheduled for preconstruction meeting, as specified in General Conditions.

Format & Content: Use Project Manual Bid Form as guide to establish format for Schedule of Values.

Identification: Include the following Project identification on Schedule of Values:

- Project name & location.
- Name of ENGINEER.
- Contractor's name & address.
- Date of submittal.

Application for Payment shall include only materials installed.

Schedule Updating: Update & resubmit Schedule of Values when Change Orders or Construction Change Directives result in change in Contract Sum.

APPLICATIONS FOR PAYMENT

Each Application for Payment shall be consistent with previous applications & payments as certified by ENGINEER & paid for by OWNER.

Initial Application for Payment, Application for Payment at time of Substantial Completion & final Application for Payment involve additional requirements.

Payment Application Times: Each progress payment date is as indicated in Agreement. Period of construction Work covered by each Application or Payment is period indicated in Agreement.

Payment Application Forms: Use AIA Document G 702 & Continuation Sheets G703 as form for Application for Payment.

Preparation: Complete every entry on form including notarization & execution by person authorized to sign legal documents on behalf of OWNER. Incomplete applications will be returned without action.

Entries shall match data on Contractor's Construction Schedule. Use updated schedules if revisions have been made.

Include amounts of Change Orders & Construction Change Directives issued prior to last day of construction period covered by application.

Transmittal: Submit 3 executed copies of each Application for Payment to ENGINEER; one copy shall be complete, including waivers of lien & similar attachments, when required.

Transmit each copy with transmittal form listing attachments & recording appropriate information related to application in manner acceptable to ENGINEER.

Waiver Forms: Submit waivers of lien on forms & executed in manner, acceptable to Owner.

Initial Application for Payment: Administrative actions & submittals that must precede or coincide with submittal of first Application for Payment include the following:

- List of subcontractors.
- List of principal suppliers & fabricators.
- Schedule of Values
- Contractor's Construction Schedule.
- Schedule of principal products.
- Schedule of unit prices.
- List of Contractor's staff assignments.
- List of Contractor's principals consultants.
- Certificates of insurance & insurance policies.
- Performance & payment bonds.

Application for Payment at Substantial Completion: Following issuance of Certificate of Substantial Completion, submit Application for Payment; this application shall reflect any Certificates of Partial Substantial Completion issued previously for OWNER occupancy of designated portions of Work.

Administrative actions & submittals that shall proceed or coincide with this application include:

- Warranties (guarantees) & maintenance agreements.
- Test records.
- Final cleaning.
- Application for reduction of retainage & consent of surety.
- List of incomplete Work, recognized as exceptions to ENGINEER's Certificate of Substantial Completion.

Final Payment Application: Administrative actions & submittals which must precede or coincide with submittal of final payment Application for Payment include the following:

- Completion of Project closeout requirements.
- Completion of items specified for completion after Substantial Completion.
- Assurance that unsettled claims will be settled.
- Assurance that Work not complete & accepted will be completed without undue delay.
- Transmittal of required Project construction records to OWNER.
- Removal of temporary facilities & services.
- Removal of surplus materials, rubbish & similar elements.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

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**SECTION 01040
PROJECT COORDINATION**

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & other Div. 1 Specification Sections, apply to this Section.

SUMMARY

This Section specifies administrative & supervisory requirements necessary for Project coordination including, but not limited to:

- Coordination.
- Administrative & supervisory personnel.
- General installation provisions.
- Cleaning & protection.

Requirements for CONTRACTOR'S Construction Schedule are included in Section *Submittals*.

COORDINATION

Coordination: Coordinate construction activities included in these Specifications to assure efficient, orderly installation, & operation of each part of Work.

Each contractor shall coordinate all work with other contractors. Coordination includes, but is not limited to:

- a. Schedule work progress with other contracts throughout project to prevent interference's & delays.
- b. Accomplish work in coordination with other contractors in a manner which will allow each contractor adequate time at proper stage of construction to perform work of contract.
- c. Project Coordinator will distribute approved shop drawings, Contractor's special requirements & other coordination documentation submitted by Contractor to each prime contractor whose work is connected to this contract. Contractor shall resolve all problems of connected, adjacent or otherwise related work.
- d. Attend project coordination meetings as scheduled by Project Coordinator.
- e. In case of conflicts due to improper coordination by any contractor, Engineer's resolution will be final. No compensation will be awarded for extra work required to resolve conflicts.

Administrative Procedures: Coordinate scheduling/timing of required administrative procedures with construction activities to avoid conflicts & ensure orderly progress of Work. Such activities include, but are not limited to, the following:

- Preparation of schedules.
- Delivery & processing of submittals.
- Progress meetings.
- Project Close-out activities.

Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water & materials.

SUBMITTALS

Staff Names: Within 15 days of Notice to Proceed, submit list of CONTRACTOR'S principal staff assignments, including Superinten-

dent & other personnel in attendance at site; identify individuals, their duties & responsibilities; list their addresses & telephone numbers.

See Section 01300, for other required submittals.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

GENERAL INSTALLATION PROVISIONS

Inspection of Conditions: Require Installer of each major component to inspect conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in acceptable manner.

Manufacturer's Instructions: Comply with manufacturer's installation instructions & recommendations, to extent that those instructions & recommendations are more explicit or stringent than requirements contained in Contract Documents.

Inspect materials or equipment immediately upon delivery & again prior to installation. Reject damaged & defective items.

Provide attachment & connection devices & methods necessary for securing Work. Secure Work true to line & level.

Recheck measurements/dimensions, before installation start.

Install each component during weather conditions & Project status that will ensure best possible results. Isolate each part of completed construction from incompatible material as necessary to prevent deterioration.

Coordinate temporary enclosures with required inspections & tests, to minimize necessity of uncovering completed construction for that purpose.

CLEANING & PROTECTION

During handling & installation, clean & protect construction in progress & adjoining materials in place.

Clean/maintain completed construction as often as necessary through remainder of construction period.

Limiting Exposures: Supervise construction activities so that no part of construction, completed or in progress, is subject to harmful, dangerous, damaging or otherwise deleterious exposure during construction period. Where applicable, such exposures include, but are not limited to, the following:

- Excessive loading
- Thermal shock
- Water or ice
- Chemicals
- Puncture
- Abrasion
- Corrosion
- Rodent & insect infestation
- Misalignment
- Unprotected storage
- Improper shipping or handling
- Theft
- Vandalism

MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION

SECTION 01090
DEFINITIONS & STANDARDS

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract including General & Supplementary Conditions & other Div. 1 Spec. Sections apply to this Section.

DEFINITIONS

General: Basic Contract definitions are included in General Conditions.

Indicated refers to graphic representations, notes/schedules/Drawings, or other Paragraphs or Schedules in Specifications & similar requirements in Contract Documents. Where terms such as *shown, noted, scheduled & specified* are used, it is to help locate reference; no limitation on location is intended except as specifically noted.

Directed: Terms such as *directed, requested, authorized, selected, approved, required & permitted* mean *directed by ENGINEER, requested by ENGINEER & similar phrases*; however, no implied meaning shall be interpreted to extend ENGINEER'S responsibility into CONTRACTOR'S area of construction supervision.

Approve: Term *approved* when used in conjunction with ENGINEER'S action on CONTRACTOR'S submittals, applications & requests, is limited to duties & responsibilities of ENGINEER as stated in General & Supplementary Conditions. Such approval shall not release CONTRACTOR from responsibility to fulfill Contract requirements unless otherwise provided in Contract Documents.

Regulation: Term *Regulations* includes laws, ordinances, statutes & lawful orders issued by authorities having jurisdiction, as well as rules, conventions & agreements within construction industry that control performance of Work, whether lawfully imposed by authorities having jurisdiction or not.

Furnish: Term *furnish* means *supply & deliver to Project site, ready for unloading, unpacking, assembly, installation & similar operations*.

Install: Term *install* is used to describe operations at project site including actual *unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning & similar operations*.

Provide: Term *provide* means *to furnish & install, complete & ready for intended use*.

Installer: *Installer* is CONTRACTOR or entity engaged by CONTRACTOR, either as employee, subcontractor or subsubcontractor for performance of particular construction activity, including installation, erection, application & similar operations. Installers are required to be experienced in operations they are engaged to perform.

Term *experienced*, when used with term *Installer* means having minimum of five previous Projects similar in size & scope to this Project, being familiar with precautions required & having complied with requirements of authority having jurisdiction.

Project Site is space available to CONTRACTOR for performance of construction activities, either exclusively or in conjunction with others performing other construction activities as part of Project. Extent of Project Site is shown on drawings & may/ may not be identical with description of land where Project is to be built.

Testing Laboratories: *Testing laboratory* is independent entity engaged to perform specific inspections or tests, either at Project Site or elsewhere & to report on &, if required, to interpret results of those inspections or tests.

SPECIFICATION FORMAT & CONTENT EXPLANATION

Specification Content: This Specification uses certain conventions in use of language & intended meaning of certain terms, words & phrases when used in particular situations or circumstances. These conventions are explained as follows:

Abbreviated Language: Language used in Specifications & other Contract Documents is abbreviated. Implied words & meanings will be appropriately interpreted. Singular words will be interpreted as plural & plural words interpreted as singular where applicable & where full context of Contract Documents so indicates.

Imperative & streamlined language is used generally in Specifications. Requirements expressed in imperative mood are to be performed by CONTRACTOR. At certain locations in text, for clarity, subjective language is used to describe responsibilities that must be fulfilled indirectly by CONTRACTOR, or by others when so noted.

Words *shall be* shall be included by inference wherever colon (:) is used within sentence or phrase.

Assignment of Specialists: Specification requires that certain specific construction activities shall be performed by specialists who are recognized experts in operations to be performed. Specialists must be engaged for those activities & assignments are requirements over which CONTRACTOR has no choice or option. Nevertheless, ultimate responsibility for fulfilling Contract requirements remains with CONTRACTOR.

This requirement shall not be interpreted to conflict with enforcement of building codes & similar regulations governing Work. It is also not intended to interfere with local trade union jurisdictional settlements & similar conventions.

Trades: Use of titles such as *carpentry* is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of corresponding generic name, such as *carpenter*. It also does not imply that requirements specified apply exclusively to tradespersons of corresponding generic name.

DRAWING SYMBOLS

Graphic symbols: If not otherwise noted, symbols are defined by Architectural Graphic Standards, pub. by John Wiley & Sons, Inc., 8th ed.

INDUSTRY STANDARDS

Applicability of Standards: Except if Contract Documents include more stringent requirements, applicable construction industry standards have same force & effect as if bound or copied directly into Contract Documents. Such standards are made part of Contract Documents by reference. Individual Sections indicate which codes & standards CONTRACTOR must keep available at Project Site for reference.

Publication Dates: If referenced standard date of issue is not specified, comply with standard in effect as of date of Contract Documents.

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Updated Standards: At request of ENGINEER, CONTRACTOR or authority having jurisdiction, submit Change Order proposal where applicable code or standard has been revised & reissued after date of Contract Documents & before performance of Work affected. ENGINEER will decide to issue Change Order to proceed with updated standard.

Conflicting Requirements: When compliance with two or more standards is specified establishing different or conflicting requirements for minimum quantities or quality levels, most stringent requirement will be enforced, unless Contract Documents indicate otherwise. Refer different, but apparently equal, requirements & uncertainties as to which quality level is more stringent to ENGINEER for decision before proceeding.

Minimum Quantity/Quality Levels: In every instance quantity/quality level shown or specified shall be minimum to be provided or performed. Actual installation may comply exactly, within specified tolerances, with minimum quantity/ quality specified, or may exceed minimum within reasonable limits. In complying with requirements, indicated numeric values are minimum or maximum values, as noted, or appropriate for context of requirements. Refer instances of uncertainty to ENGINEER for decision before proceeding.

Copies of Standards: Each entity engaged in construction on Project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with Contract Documents.

Where copies of standards are needed for performance of required construction activity, CONTRACTOR shall obtain copies directly from publication source.

Although copies of standards needed for enforcement of requirements also may, be included as part of required submittals, ENGINEER reserves right to require CONTRACTOR to submit additional copies as necessary for enforcement of requirements.

Abbreviations & Names: Trade association names & titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in Specifications or other Contract Documents, they mean recognized name of trade association, standards generating organization, authority having jurisdiction, or other entity applicable to context of text provision. Refer to Encyclopedia of Associations, published by Gale Research Co., available in most libraries.

PART 2 - PRODUCTS	Not applicable
PART 3 - EXECUTION	Not Applicable

MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION

SECTION 01300
SUBMITTALS

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & other Div. 1 Specification Sections, apply to this Section.

SUMMARY

This Section specifies administrative & procedural requirements for submittals required for performance of Work, including:

- Shop Drawings.
- CONTRACTOR'S construction schedule.
- Product Data.

Administrative Submittals: Refer to other Div. 1 Sections & other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to:

- Applications for payment certificates.
- List of Subcontractors.
- Performance & Payment bonds.
- Insurance
- Staff Names.

Schedule of Values submittal is included in Applications for Payment.

Inspection & test reports are included in Quality Control Services.

SUBMITTAL PROCEDURES

Coordination: Coordinate preparation & processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

Coordinate each submittal with fabrication, purchasing, testing, delivery & related activities that require sequential activity. ENGINEER reserves right to withhold action on submittal requiring coordination with other submittals until related submittals are received.

Processing: Allow sufficient review time so that installation will not be delayed as result of time required to process submittals, including time for resubmittals.

No extension of Contract Time will be authorized because of failure to transmit submittals to ENGINEER sufficiently in advance of Work to permit processing.

Submittal Preparation: Place permanent label or title block on each submittal for identification. Indicate name of entity that prepared each submittal on label or title block.

Provide space on label or beside title block on Shop Drawings to record CONTRACTOR'S review/approval markings & action taken.

Include following information on label for processing & recording action taken.

- Project name.
- Date.
- Name & address of ENGINEER.
- Name & address of CONTRACTOR.

- Name & address of subcontractor.
- Name & address of supplier.
- Name of manufacturer.
- Drawing number & detail references, as appropriate.

Submittal Transmittal: Package each submittal appropriately for transmittal & handling. Transmit each submittal from CONTRACTOR to ENGINEER using transmittal form. Submittals received from sources other than CONTRACTOR will be returned without action.

On transmittal, record relevant information & requests for data. On form or separate sheet, record deviations from Contract Document requirements, including minor variations & limitations. Include CONTRACTOR'S certification that information complies with Contract Document requirements.

CONTRACTOR'S CONSTRUCTION SCHEDULE

Bar-Chart Schedule: Prepare fully developed, horizontal bar-chart type CONTRACTOR'S construction schedule.

Provide separate time bar for each significant construction activity. Provide continuous vertical line to identify first working day of each week. Use same breakdown of units of Work as indicated in *Schedule of Values*.

Secure time commitments for performing critical elements of Work from parties involved. Coordinate elements on schedule with other construction activities; include minor elements involved in sequence of Work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of Work.

Coordinate CONTRACTOR'S construction schedule with schedule of values, list of subcontracts, payment requests & other schedules.

Indicate completion in advance of date established for Substantial Completion. Indicate Substantial Completion on schedule to allow time for ENGINEER'S procedures necessary for certification of Substantial Completion.

Work Stages: Indicate important stages of construction for each major portion of Work, including testing & installation.

Schedule Updating: Revise schedule after each meeting or activity, where revisions have been recognized or made. Issue updated schedule concurrently with report of each meeting.

CONSTRUCTION REPORTS

Prepare construction report, recording the following information concerning accidents or unusual or emergency events at site; & submit duplicate copies to ENGINEER:

- List of subcontractors at site.
- Approximate count of personnel at site.
- Meetings & significant decisions.
- Stoppages, delays, shortages, losses.
- Emergency procedures.
- Orders & requests of governing authorities.
- Change Orders received, implemented.
- Services connected, disconnected.

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CSO IMPROVEMENTS PROJECT
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SHOP DRAWINGS

Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from Contract Documents. Do not reproduce Contract Documents or copy standard information as basis of Shop Drawings. Standard information prepared without specific reference to Project is not considered Shop Drawings.

Sheet Size: Submit Shop Drawings on sheets at least 8.5" x 11" but no larger than 36" x 48".

Submittal: Submit 3 copies for ENGINEER's review. One will be returned marked with *Action* & corrections or modifications as required.

Final Submittal: Submit 3 additional prints when submittals are returned marked *Revise & Resubmit* or *Not Approved*, or when required for maintenance manuals as directed by ENGINEER.

Do not use Shop Drawings without appropriate final stamp indicating action taken in connection with construction.

PRODUCT DATA

Collect Product Data into single submittal for each element of construction or system. Where product data must be specially prepared because standard printed data is not suitable for use, submit as *Shop Drawings*.

Mark each copy to show applicable choices & options. When printed Product Data includes information on several products, some of which are not required, mark copies to indicate applicable information. Include the following information:

- Manufacturer's printed recommendations.
- Compliance with recognized standards.
- Application of testing agency labels & seals.
- Notation of dimensions verified by field measurement.

Do not submit Product Data until compliance with requirements of Contract Documents has been confirmed.

Submittals: Submit three copies of each required submittal. ENGINEER will retain two & will return other marked with action taken & corrections or modifications required.

ENGINEER's ACTION

Except for submittals for record, information or similar purposes, where action & return is required or requested, ENGINEER will review each submittal, mark to indicate action taken & return promptly. Compliance with specified characteristics is CONTRACTOR's responsibility.

Action Stamp: ENGINEER will stamp each submittal with uniform, self-explanatory action stamp. Stamp will be appropriately marked, as follows, to indicate action taken: approved, approved as corrected, revise & resubmit, not approved.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

Not Applicable.

MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION

SECTION 01400
QUALITY CONTROL SERVICES

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & other Div. 1 Specification sections, apply to work of this section.

SUMMARY

This Section specifies administrative & procedural requirements for quality control services.

Quality control services include inspections & tests & related actions including reports, performed by independent agencies, governing authorities & CONTRACTOR. They do not include Contract enforcement activities performed by ENGINEER.

Inspection & testing services are required to verify compliance with requirements specified or indicated & do not relieve CONTRACTOR of responsibility for compliance with Contract Document requirements.

Requirements of this Section relate to customized fabrication & installation procedures, not production of standard products.

Specific quality control requirements for individual construction activities are specified in Sections that specify those activities. Those requirements, including inspections & tests, cover production of standard products & customized fabrication & installation procedures.

Inspections, test & related actions specified are not intended to limit CONTRACTOR's quality control procedures that facilitate compliance with Contract Document requirements.

Requirements for CONTRACTOR to provide quality control services required by ENGINEER, OWNER or authorities having jurisdiction are not limited by provisions of this Section.

RESPONSIBILITIES

CONTRACTOR Responsibilities: CONTRACTOR shall provide tests, inspections & similar quality control services specified in individual Specification Sections & required by governing authorities, except where specifically indicated to be OWNER's responsibility, or provided by another identified entity; these services include those specified to be performed by independent agency & not by CONTRACTOR. Costs for these services shall be included in Contract Sum.

CONTRACTOR shall employ & pay independent agency, to perform specified quality control services.

OWNER will engage & pay for services of independent agency to perform inspections/tests specified as OWNER's responsibility.

Where OWNER has engaged testing agency or other entity for testing & inspection of part of Work & CONTRACTOR is also required to engage entity for same or related element, CONTRACTOR shall not employ entity engaged by OWNER, unless otherwise agreed in writing with OWNER.

Retesting: CONTRACTOR is responsible for retesting where results of required inspections, tests or similar services prove unsatisfactory & do not indicate compliance with Contract Document requirements, regardless of whether original test was CONTRACTOR's responsibility.

Cost of retesting construction revised or replaced by CONTRACTOR is CONTRACTOR's responsibility, where required tests were performed on original construction.

Associated Services: CONTRACTOR shall cooperate with agencies performing required inspections, tests & similar services & provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include but are not limited to:

Providing access to Work & furnishing incidental labor & facilities necessary to facilitate inspections & tests.

Taking adequate quantities of representative samples of materials that require testing or assisting agency in taking samples.

Providing facilities for storage & curing of test samples & delivery of samples to testing laboratories.

- Providing agency with preliminary design mix proposed for use for material mixes that require testing agency control.
- Security & protection of samples & test equipment at Project site.

Duties of Testing Agency: Independent testing agency engaged to perform inspections, sampling & testing of materials & construction specified in individual Specification Sections shall cooperate with ENGINEER & CONTRACTOR in performance of its duties & shall provide qualified personnel to perform required inspections & tests.

- Agency shall notify ENGINEER & CONTRACTOR promptly of irregularities or deficiencies observed in Work during performance of its services.
- Agency is not authorized to release, revoke, alter or enlarge requirements of Contract Documents, or approve or accept any portion of Work.
- Agency shall not perform any duties of CONTRACTOR.

Coordination: CONTRACTOR & each agency engaged to perform inspections, tests & similar services shall coordinate sequence of activities to accommodate required services with minimum delay. They shall also coordinate activities to avoid necessity of removing & replacing construction to accommodate inspections & tests.

CONTRACTOR is responsible for scheduling times for inspections, tests, taking samples & similar activities.

SUBMITTALS

Independent testing agency shall submit certified written report of each inspection, test or similar service, to ENGINEER, in duplicate, unless CONTRACTOR is responsible for service. If CONTRACTOR is responsible for service, submit certified written report of each inspection, test or similar service through CONTRACTOR, in duplicate.

Submit additional copies of each written report directly to governing authority, when authority so directs.

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Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:

- Date of Issue.
- Project title & number.
- Name, address & telephone number of testing agency.
- Dates & locations of samples & tests or inspections.
- Names of individuals making the inspection or test.
- Designation of the Work & test method.
- Identification of product & Specification section.
- Complete inspection or test data.
- Test results & interpretation of test results.
- Ambient conditions at time of sample-taking & testing.
- Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
- Name & signature of laboratory inspector.
- Recommendations on retesting.

QUALITY ASSURANCE

Qualification for Service Agencies: Engage inspection & testing service agencies (including independent testing laboratories) prequalified as complying with *Recommended Requirements for Independent Laboratory Qualification* by American Council of Independent Laboratories & which specialize in types of inspections & tests to be performed.

Each independent inspection & testing agency engaged on Project shall be authorized by authorities having jurisdiction to operate in State in which Project is located.

PART 2 - PRODUCTS

Not Applicable.

PART 3 - EXECUTION

REPAIR & PROTECTION

General: Upon completion of inspection, testing, sample-taking & similar services, repair damaged construction & restore substrates & finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes.

Protect construction exposed by or for quality control service activities & protect repaired construction.

Repair & protection is CONTRACTOR's responsibility, regardless of assignment of responsibility for inspection, testing or similar services.

MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
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SECTION 01500
TEMPORARY FACILITIES

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & other Div. 1 Spec. Sections, apply to this Section.

SUMMARY

This Section specifies requirements for temporary services & facilities, incl. utilities, construction & support facilities, security & protection, necessary for completion of work under this Contract.

Temporary utilities required include, but are not limited to, temporary electric power and telephone services.

Temporary construction & support facilities required include, but are not limited to:

Temporary heat.

Sanitary facilities, including drinking water.

Temporary enclosures.

Waste disposal services.

Security & protection facilities required include, but are not limited to, excavation protection, barricades, warning signs & lights.

SUBMITTALS

Temporary Utilities: Submit reports of tests, inspections & similar procedures performed on temporary utilities.

QUALITY ASSURANCE

Regulations: Comply with industry standards & applicable laws & regulations of authorities having jurisdiction, including but not limited to:

Building Code requirements.

Health & safety regulations.

Utility company regulations.

Police, Fire Department & Rescue Squad rules.

Environmental protection regulations.

Standards: Comply with NEMA, UL, NEC (NFPA 70) & NECA.

Inspections: Arrange for proper authorities to inspect & test each temporary utility before use. Obtain required certifications & permits.

PROJECT CONDITIONS

Conditions of Use: Keep temporary services & facilities clean & neat in appearance. Operate in a safe & efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on site.

PART 2 - PRODUCTS

MATERIALS

General: Provide new materials; if acceptable to Engineer, undamaged previously used materials in serviceable condition may be used. Provide materials suitable for use intended.

Water: Provide potable water approved by local health authorities.

EQUIPMENT

General: Provide new equipment; if acceptable to Engineer, undamaged, previously used equipment in serviceable condition may be used. Provide equipment suitable for use intended.

Electrical Outlets: Provide properly configured NEMA polarized outlets to prevent insertion of 110-120V plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button & pilot light, for connection of power tools & equipment.

Electrical Power Cords: Provide grounded extension cords; use *hard-service* cords if exposed to abrasion & traffic. Provide waterproof connectors for separate lengths of electric cords, if single lengths will not reach areas where construction activities are in progress.

Lamps & Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.

Heating Units: Provide temporary heating units that have been tested & labeled by UL, FM or another recognized trade association related to type of fuel being consumed.

Temporary Toilet Units: Provide self-contained single-occupant toilet units of chemical, aerated recirculation, or combustion type, properly vented & fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material.

First Aid Supplies: Comply with governing regulations.

PART 3 - EXECUTION

INSTALLATION

Use qualified personnel to install temporary facilities. Locate facilities where they will serve Project adequately & result in min. interference with performance of Work. Facilities shall also be located such that they do not interfere with Owner's operations. Relocate & modify facilities as required.

Provide each facility ready for use when needed to avoid delay. Maintain & modify as required. Do not remove until facilities are no longer needed, or are replaced by authorized use of completed permanent facilities.

TEMPORARY UTILITY INSTALLATION

General: Engage appropriate local utility company to install temporary service or connect to existing service. Where company provides only part of service, provide remainder with matching, compatible materials & equipment; comply with company's recommendations.

Arrange with company & existing users for a time when service can be interrupted, where necessary, to make connections for temporary services.

Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.

Obtain easements to bring temporary utilities to site, where Owner's easements cannot be used for that purpose.

Use Charges: Cost or use charges for temporary facilities are not chargeable to Owner or Engineer & will not be accepted as a basis of claims for a Change Order.

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Temporary Electric Power Service: Provide weatherproof, grounded electric power service & distribution system of sufficient size, capacity & power characteristics during construction period. Include meters, transformers, overload protected disconnects, automatic ground-fault interrupters & main distribution switch gear.

Temporary Lighting: Whenever overhead floor or roof deck has been installed, provide temporary lighting with local switching.

Install & operate temporary lighting that will fulfill security & protection requirements, without operating entire system & will provide adequate illumination for construction operations & traffic conditions.

Provide earthen embankments & similar barriers in & around excavations & subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

TEMPORARY CONSTRUCTION & SUPPORT FACILITIES INSTALLATION

Locate field offices, storage sheds, sanitary facilities & other temporary construction & support facilities for easy access.

Maintain temporary construction & support facilities until near Substantial Completion. Remove prior to Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.

Temporary Heat: Provide temporary heat required by construction activities, for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required & minimize consumption of energy.

Heating Facilities: Except where use of permanent system is authorized, provide vented self-contained LP gas or fuel oil heaters with individual space thermostatic control.

Use of gasoline-burning space heaters, open flame, or salamander type heating units is prohibited.

Sanitary facilities include temporary toilets, wash facilities & drinking water fixtures. Comply with regulations & health codes for type, number, location, operation & maintenance of fixtures & facilities. Install where facilities will best serve Project's needs.

Provide toilet tissue, paper towels, paper cups & similar disposable materials for each facility. Provide covered waste containers for used material.

Toilets: Install self-contained toilet units. Shield toilets to ensure privacy. Use of pit-type privies will not be permitted.

Drinking Water Facilities: Provide containerized tap-dispenser bottled-water type drinking water units, including paper supply.

Where power is accessible, provide electric water coolers or other means to maintain dispensed water temperature at 45-55°F (7-13°C).

Temporary Enclosures: Provide temporary enclosure for protection of construction in progress & completed, from exposure, foul weather, other construction operations & similar activities.

Where heat is needed, provide temporary enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating & material drying or curing requirements to avoid dangerous conditions & effects.

Install tarpaulins securely, with incombustible wood framing & other materials. Close openings of 25 sq. ft. or less with plywood or similar materials.

SECURITY & PROTECTION FACILITIES INSTALLATION

Barricades, Warning Signs & Lights: Comply with standards & code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics & warning signs to inform personnel & public of hazard being protected against. Where appropriate & needed provide lighting, including flashing red or amber lights.

EXCAVATION PROTECTION

Provide earthen embankments & similar barriers in & around excavations & subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

OPERATION, TERMINATION & REMOVAL

Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential & intended uses to minimize waste & abuse.

Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures & similar elements.

Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation & similar facilities on 24-hour day basis where required to achieve indicated results & avoid possibility of damage.

Protection: Prevent water filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

Termination & Removal: Unless Engineer requests that it be maintained longer, remove each temporary facility when need has ended, or when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces & replace construction that cannot be satisfactorily repaired.

Materials & facilities that constitute temporary facilities are property of Contractor.

At Substantial Completion, clean & renovate permanent facilities that have been used during construction period.

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SECTION 01700
PROJECT CLOSEOUT

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & other Div. 1 Specification Sections, apply to this Section.

SUMMARY

This Section specifies administrative & procedural requirements for project closeout, including but not limited to:

- Inspection procedures.
- Project record document submittal.
- Submittal of warranties.
- Final cleaning.

SUBSTANTIAL COMPLETION

Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.

In Application for Payment that coincides with or first follows, date Substantial Completion is claimed, show 100% completion for portion of Work claimed as substantially complete. Include supporting documentation for completion as indicated in these Contract Documents & statement showing accounting of changes to Contract Sum.

If 100% completion cannot be shown, include list of incomplete items, showing value & reasons Work is incomplete.

Discontinue & remove temporary facilities from the site, along with construction tools & similar elements.

Complete final clean up requirements.

Inspection Procedures: On receipt of request for inspection, ENGINEER will either proceed with inspection or advise CONTRACTOR of unfilled requirements. ENGINEER will prepare Certificate of Substantial Completion following inspection or advise CONTRACTOR of construction that must be completed or corrected before certificate will be issued.

ENGINEER will repeat inspection when requested & assured that Work has been substantially completed.

Results of completed inspection will form basis of requirements for final acceptance.

FINAL ACCEPTANCE

Preliminary Procedures: Before requesting final inspection for certification of final acceptance & final payment, complete the following. List exceptions in the request.

Submit final payment request with releases & supporting documentation not previously submitted & accepted. Include certificates of insurance for products & completed operations where required.

Submit updated final statement, accounting for final additional changes to Contract Sum.

Submit certified copy of ENGINEER 's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance & list has been endorsed & dated by ENGINEER.

Submit consent of surety to final payment.

Submit final liquidated damages settlement statement.

Submit evidence of final, continuing insurance coverage complying with insurance requirements.

Reinspection Procedure: ENGINEER will reinspect Work upon receipt of notice that Work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to ENGINEER.

Upon completion of reinspection, ENGINEER will prepare certificate of final acceptance or advise CONTRACTOR of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.

If necessary, reinspection will be repeated.

RECORD DOCUMENT SUBMITTALS

Provide Engineer with a set of clean, undamaged prints of Contract Drawings & Shop Drawings for Engineer's use in preparing Owner's Record Documents. Mark set to show actual installation where installation varies substantially from Work as originally shown. Mark whichever drawing is most capable of showing conditions fully & accurately. Give particular attention to concealed elements that would be difficult to measure & record at later date.

Mark new information that is important to OWNER, but was not shown on Contract Drawings or Shop Drawings.

Provide Engineer with updated final survey record drawing indicating conditions after completing construction.

Provide Engineer with copy of QA/QC certification and log of results of all QA/QC activities including but not limited to material manufacturers, contractors and subcontractors, QA/QC inspections, tests, reports, and corrective measures associated with work of this contract.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

FINAL CLEANING

Complete the following cleaning operations before requesting inspection for Certificate of Substantial Completion.

Clean site, including landscape development areas, of rubbish, litter & other foreign substances. Sweep road broom clean; remove stains, spills & other foreign deposits. Rake grounds that are neither paved nor planted, to smooth even-textured surface.

Removal of Protection: Remove temporary protection & facilities installed for protection of Work during construction.

Compliance: Comply with regulations of authorities having jurisdiction & safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on OWNER's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from site & dispose of in lawful manner.

Where extra materials of value remaining after completion of Work have become OWNER's property, arrange for disposition of these materials as directed.

DIVISION 2 - TECHNICAL SPECIFICATIONS

MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION

SECTION 02020
PROJECT SURVEY & STAKE-OUT

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & Div. 1 & Div. 2 Specification Sections apply to this Section.

SUMMARY

Work under this Section includes:

- All necessary survey required to construct all elements and phases of the project as shown on the drawings and specified herein.
- Stake-out & layout as required, consistent with current established survey practice.
- Layout using control points established by Owner or Engineer prior to construction.

PART 2 - PRODUCTS

MATERIALS

Provide all instruments, equipment, stakes and any other materials necessary for the satisfactory performance of the work. The Contractor is responsible for maintaining stakes in their proper position and location at all times during performance of work under this contract.

PART 3 - EXECUTION

SURVEY FIELD WORK

Trim trees, brush, and other interfering objects from survey lines in advance of survey work to permit accurate and unimpeded work by the survey stake-out crew. The exact position of all work shall be established from control points of similar nature shown on the drawings or designated by the Owner's Representative. The Owner's Representative will provide local datum information for use by the Contractor to establish control points.

The Contractor is responsible for the accuracy of work. Maintain all reference points, stakes, etc., throughout the performance of work under this contract. Replace or transfer any points, benchmarks, stakes, or reference points that are damaged, destroyed, or made inaccessible or subject to these conditions. Reference and record all control points with ties to acceptable objects. Notify and provide information to Engineer regarding any alterations or revisions to reference points. Make and preserve all computations to establish control points. Make all computations, notes, and records available to Engineer upon request and provide to Owner at completion of Project.

The Engineer may check all or any portion of the survey and stake out work, or notes made by the Contractor. Make any necessary correction to the work immediately. Such checking by the Engineer shall not relieve the Contractor of any responsibility for the completeness or accuracy of the Contractor's work.

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CONTRACT NO. 2 – GENERAL CONSTRUCTION

SECTION 02200
EARTHWORK

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & Div. 1 & Div. 2 Specification Sections, & "Standard Specifications - Construction & Materials" (by NYS Dept. of Transportation's [NYSDOT] Office of Engineering, Latest Edition) apply to this Section.

SUMMARY

This Section includes the following:

Excavating and backfilling for underground piping and mechanical utilities and appurtenances.

REFERENCE STANDARDS

NYS Department of Transportation "Standard Specifications, Construction and Materials," January 2, 1995 and revisions.

ASTM D 448-86: Standard Classification for Sizes of Aggregate for Road and Bridge Construction.

ASTM D 698-91: Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ [600 kN-m/m³]).

ASTM D 1556-90: Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.

ASTM D1557-91: Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ [2,700 kN-m/m³]).

ASTM D 2167-84 (1990): Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.

ASTM D 2487-90: Standard Test Method for Classification of Soils for Engineering Purposes.

ASTM D 2922-91: Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

ASTM D 2937-83 (1990): Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method.

ASTM D 2940-74 (1985): Standard Specification for Graded Aggregate Material for Bases or Subbases for Highways or Airports.

ASTM D 30-17-88: Standard Test Methods for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

ASTM D 3740-88: Standard Practice for Evaluation of Agencies Engaged in the Testing and/or Inspection of Soil and Rock as used in Engineering Design and Construction.

ASTM D 4254-91: Standard Test Method for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density.

ASTM D 4491-89: Standard Test Methods for Water Permeability of Geotextiles by Permittivity.

ASTM D 4632-91: Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.

ASTM D 4751-87: Standard Test Method for Determining Apparent Opening Size of a Geotextile.

DEFINITIONS

Excavation consists of removal of material encountered to subgrade elevations indicated & subsequent disposal of materials removed.

Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of ENGINEER. Unauthorized excavation, as well as remedial work directed by ENGINEER, shall be at CONTRACTOR's expense.

Backfill & compact unauthorized excavations as specified for authorized excavations of same classification, unless otherwise directed by ENGINEER.

Additional Excavation: When excavation has reached required subgrade elevations, notify ENGINEER, who will make inspection of conditions. If ENGINEER determines that bearing materials at required subgrade elevations are unsuitable, continue excavation until suitable bearing materials are encountered & replace excavated material as directed by ENGINEER at OWNER'S expense.

Subgrade: The uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.

Borrow: Soil material obtained off-site when sufficient approved soil material is not available from excavations.

Subbase Course: The layer or layers placed between the subgrade and base course in a paving system or the layer placed between the subgrade and surface of a pavement or walk or between the subgrade and any proposed structures or foundations.

Base Course: The layer or layers placed between the subbase and surface pavement of a paving system.

Drainage Fill: Course of granular material placed to cut off flow of water.

Stone Filling: Stone filling shall consist of well graded stone placed as protective material on streambanks, in channels and elsewhere, as required.

Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below ground surface.

Utilities include on-site underground pipes, conduits, ducts, and cables, as well as underground services within building lines.

SUBMITTALS

General: Submit the following according to the Conditions of the Contract and Division 1 Specification Sections.

Test Reports: In addition to test reports required under field quality control, submit the following:

Laboratory analysis of each soil material proposed for fill and backfill from borrow sources.

One optimum moisture-maximum density curve for each soil material.

Dewatering plan if high water tables are expected to be encountered or AOB.

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QUALITY ASSURANCE

Codes & Standards: Perform earthwork complying with requirements of authorities having jurisdiction.

Testing and Inspection Service: Employ a qualified independent geotechnical engineering testing agency to classify proposed on-site and borrow soils to verify that soils comply with specified requirements and to perform required field and laboratory testing.

Preinstallation Conference: Before commencing earthwork, meet with representatives of the governing authorities, Owner, Engineer, consultants, Geotechnical Engineer, independent testing agency, and other concerned entities. Review earthwork procedures and responsibilities including testing and inspection procedures and requirements. Notify participants at least 3 working days prior to convening conference. Project coordinator will record discussions and agreements and furnish a copy to each participant.

Submittals: Submit certifications substantiating that materials comply with specified requirements

PROJECT CONDITIONS

Existing Utilities: Locate existing underground utilities in areas of excavation work. If utilities are indicated to remain in place, provide adequate means of support & protection during earthwork operations.

Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult utility owner immediately for directions. Cooperate with OWNER & utility companies in keeping respective services & facilities in operation. Repair damaged utilities to satisfaction of utility owner. CONTRACTOR will be responsible for repair costs caused by construction activities.

Do not interrupt existing utilities serving facilities occupied by OWNER or others, during occupied hours, except when permitted in writing by ENGINEER & then only after acceptable temporary utility services have been provided.

Provide minimum of 48-hour notice to ENGINEER & receive written notice to proceed before interrupting any utility.

Use of Explosives is not permitted under this section.

Protection of Persons & Property: Barricade open excavations occurring as part of this work & post with warning lights.

- Operate warning lights as recommended by authorities having jurisdiction.
- Protect structures, utilities, sidewalks, pavements & other facilities from damage caused by settlement, lateral movement, undermining, washout & other hazards created by earthwork operations.

PART 2 – PRODUCTS

SOIL MATERIALS

- General: Provide approved borrow soil materials from off-site when acceptable soil materials are not available from necessary on-site excavations.
- Satisfactory Soil Materials consist of sound, durable, sand, gravel, stone or blends of these materials, free from organic, frozen or other deleterious materials and complying with ASTM 02487 soil classification groups GW, GP-GM, SP-SM, SW & SP, unless otherwise specified.
- Unsatisfactory Soil Materials ASTM D 2487 soil classification groups GC, SC, ML, MH, CL, CH, OL, OH, and PT.

General Backfill and Fill Materials consist of satisfactory soil materials meeting ASTM C-33 for durability and soundness and meeting one of the following:

Pipe Embedment/Select Compacted Backfill: Satisfactory soil materials meeting Class 1B as defined in ASTM D2321 and conforming to the following gradation:

Sieve Designation	% by weight passing square openings
1.5"	100%
#4	0% to 50%
#200	0% to 5%

Fines passing the No. 200 sieve shall be non-plastic.

Crushed Stone Bedding/Fill Materials: Satisfactory soil materials conforming to the requirements of NYSDOT Specifications Section 703-02 and the gradation requirements for NYSDOT size designations as follows:

NYSDOT Size	Sieve Designation	% by Weight Passing
1	1"	100%
	1/2"	90% to 100%
	1/4"	0% to 15%
2	1-1/2"	100%
	1"	90% to 100%
3	1/2"	0% to 15%
	2-1/2"	100%
	2"	90% to 100%
	1-1/2"	35% to 70%
	1"	0% to 15%

Pipe Envelope Sand: Consists of satisfactory soil materials as specified herein, with a maximum size of 1/2", more than 50% passing the #4 sieve and less than 10% passing the #200 sieve.

Select Fill: shall be native or imported satisfactory soil material approved by Engineer and conforming to the following gradation:

Sieve Designation	% by weight passing square openings
2"	100%
#40	0% to 70%
#200	0% to 10%

Fines passing No. 200 shall be non-plastic.

Particle size analysis shall show no gap-grading.

Pavement Subbase/Back Up: consisting of crushed stone materials meeting NYSDOT requirements for Item No. 304.12, Subbase Course, Type 2 & conforming to the following gradation:

Sieve Designation	% by weight passing square openings
2"	100%
1/4"	25% to 60%
#40	5% to 40%
#200	0% to 10%

Run of Bank Gravel: Sand and gravel product with no materials larger than 4" and having less than 15% passing the #200 sieve.

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Non-Woven Geotextile Filter Fabric: Minimum 6 oz/sy fabric weight, LINQ-GTF-150 EX, AMOCO 4552, or approved equal.

Woven Geotextile Stabilization Fabric: Minimum 6 oz/sy fabric weight, LINQ-GTF-300, AMOCO 2006 or approved equal.

PART 3 - EXECUTION

PREPARATION

Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.

Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.

Provide erosion control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties, walkways, streams and drainage structures.

DEWATERING

Prevent surface water and subsurface or ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.

Protect subgrades and foundation soils from softening and damage by rain or water accumulation.

- * Do not allow water to accumulate in excavations. Remove water to prevent soil changes detrimental to stability of subgrades. Provide/ maintain pumps, well points, sumps, suction & discharge lines & other dewatering system components necessary to convey water away from excavations.
- * Establish & maintain temporary drainage ditches & other diversions outside excavation limits to convey rain water & water removed from excavations to collecting or runoff areas. Do not use trench excavations as temporary drainage ditches.
- * Excavations shall be maintained in dry condition & no foundation materials, pipe or concrete shall be placed in water. Dewatering shall be done in approved manner, such that subgrade can be trimmed, foundation materials, pipe or concrete placed dry, without disturbing bearing materials & water from excavation shall be disposed of so that it will cause no injury to property or inconvenience to public.
- * High water tables may be encountered. Where subgrade consists of fine, silty sands which are easily disturbed by flowing water, uplift pressures shall be relieved by well points extending as far below base of trench as necessary. For subgrades of nonplastic silt or silty-fine sand, groundwater shall be drawn down to at least 2' below final pipe invert grade by well points or other approved means.
- * Care should be taken to shut down dewatering equipment slowly to avoid uplift & softening of materials supporting pipe, appurtenances & foundations.

EXCAVATION

Explosives: Do not use explosives.

Unclassified Excavation: Excavation is unclassified and includes excavation to required subgrade elevations regardless of the character of materials and obstructions encountered.

Classified Excavation: Excavation is classified and includes excavation to required subgrade elevations. Excavation will be

classified as earth excavation, concrete pavement excavation or rock excavation as follows:

Earth excavation includes excavation of pavements and other obstructions visible on surface; underground structures, utilities, and other items indicated to be demolished and removed; together with soil and other materials encountered that are not classified as rock or unauthorized excavation.

Concrete pavement excavation includes saw cutting of excavation limits, excavation of concrete pavement and disposal of materials.

Intermittent drilling, or ripping to increase production not necessary to permit excavation of material encountered will be classified as earth excavation.

Rock excavation includes removal and disposal of rock material and obstructions encountered that cannot be removed by heavy-duty rock excavating equipment without systematic drilling, or ripping. Heavy-duty rock excavating equipment includes Caterpillar Model No. 325C with 63,000 pound minimum operating weight.

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Rock material includes boulders one (1) cu. yd. or more in volume and rock in beds, ledges, unstratified masses, and conglomerate deposits.

Excavations more than 10 feet in width and pits more than 30 feet in either length or width are defined as open excavations.

Do not excavate rock until it has been classified and cross-sectioned by Engineer.

STABILITY OF EXCAVATIONS & DEWATERING

General: Contractor shall be responsible to ensure settlement of existing structures near excavations does not occur. Comply with local codes, ordinances & requirements of agencies having jurisdiction.

PRE-EXCAVATION SURVEYS

Contractor shall conduct any and all pre-excitation surveys, structure inspections, photographs, etc. he deems necessary to establish their condition prior to start of operations. Contractor shall notify Owner of any existing defects or abnormalities in existing structures.

OUTSIDE CONSULTANTS/GEOLOGISTS

Contractor shall employ whatever outside consultants, geologists or other experts he deems necessary to make recommendations for his operations or to consult with him during work in order to comply with contract requirements.

POST EXCAVATION STRUCTURE INSPECTION

Following completion of excavation, Engineer and Contractor shall jointly inspect existing structures to ascertain their condition and any damage caused by Contractor's operations.

EXCAVATION FOR STRUCTURES

Excavate to indicated elevations and dimensions within a tolerance of plus or minus 0.10 foot. Extend excavations a sufficient distance from structures for placing and removing concrete formwork, installing services and other construction, and for inspections.

Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.

Excavations for Underground Tanks, Basins, and Mechanical or Electrical Appurtenances: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 0.10 foot.

Do not disturb bottom of excavations intended for bearing surfaces.

EXCAVATION FOR WALKS AND PAVEMENTS

Excavate surfaces under walks and pavements to indicated cross sections, elevations, and grades.

EXCAVATION FOR UTILITY TRENCHES

Excavate trenches to indicated slopes, lines, depths, and invert elevations.

Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line.

Excavate trenches to uniform widths to provide a working clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.

Clearance: As indicated.

Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove stones and sharp objects to avoid point loading.

For pipes or conduit less than 6 inches in nominal diameter and flat-bottomed, multiple-duct conduit units, hand-excavate trench bottoms and support pipe and conduit on an undisturbed subgrade.

For pipes and conduit 6 inches or larger in nominal diameter, shape bottom of trench to support bottom 90 degrees of pipe circumference. Fill depressions with tamped sand backfill.

Where encountering rock or another unyielding bearing surface, carry trench excavation 6 inches below invert elevation to receive bedding course.

APPROVAL OF SUBGRADE

Notify Engineer when excavations have reached required subgrade.

When Engineer determines that unforeseen unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.

Unforeseen additional excavation and replacement material will be paid according to the contract provisions for changes in work.

Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Engineer.

UNAUTHORIZED EXCAVATION

Fill unauthorized excavation under foundations or wall footings by extending indicated bottom elevation of concrete foundation or footing to excavation bottom, without altering required top elevation. Lean concrete fill may be used to bring elevations to proper position when acceptable to the Engineer.

Fill unauthorized excavations under other construction as directed by the Engineer.

Where indicated widths of utility trenches are exceeded, provide stronger pipe, or special installation procedures, as required by the Engineer.

STORAGE OF SOIL MATERIALS

Stockpile excavated materials acceptable for backfill and fill soil materials, including acceptable borrow materials. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent wind-blown dust.

Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

BACKFILL

Backfill excavations promptly, but not before completing the following: Acceptance of construction below finish grade including, where applicable, dampproofing, waterproofing, and perimeter insulation.

Surveying locations of underground utilities for record documents.

Testing, inspecting, and approval of underground utilities.

Concrete formwork removal.

Removal of trash and debris from excavation.

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Removal of temporary shoring and bracing, and sheeting.

Installing permanent or temporary horizontal bracing on horizontally supported walls.

UTILITY TRENCH BACKFILL

Place and compact bedding course on rock and other unyielding bearing surfaces and to fill unauthorized excavations. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.

Concrete backfill trenches that carry below or pass under footings and that are excavated within 18 inches of footings. Place concrete to level of bottom of footings.

Crushed stone bedding shall be required for PVC sewer main as indicated in the contract documents. Crushed stone shall be required for all sewer main up to the springline.

Place and compact initial backfill of satisfactory soil material free of particles larger than 1 inch, to a height of 12 inches over the utility pipe or conduit.

Carefully compact material under pipe haunches and bring backfill evenly up on both sides and along the full length of utility piping or conduit to avoid damage or displacement of utility system.

Coordinate backfilling with utilities testing.

Fill voids with approved backfill materials as shoring and bracing, and sheeting is removed.

Place and compact final backfill of satisfactory soil material to final subgrade.

SUBBASE AND BASE COURSES

Under pavements and walks, place subbase course material on prepared subgrades. Place base course material over subbases to pavements.

Compact subbase and base courses at optimum moisture content to required grades, lines, cross sections and thickness to not less than 95 percent of ASTM D 4254 relative density.

Shape subbase and base to required crown elevations and cross-slope grades.

When thickness of compacted subbase or base course is 6 inches materials in a single layer.

When thickness of compacted subbase or base course exceeds 6 inches, place materials in equal layers, with no layer more than 6 inches thick or less than 3 inches thick when compacted.

Pavement Shoulders: Place shoulders along edges of subbase and base course to prevent lateral movement. Construct shoulders at least 12 inches wide of acceptable soil materials and compact simultaneously with each subbase and base layer.

SUBSURFACE DRAINAGE BACKFILL

Subsurface Drain: Place a layer of filter fabric around perimeter of drainage trench or at footing, as indicated. Place a 6-inch compacted course of filtering material on filter fabric to support drainage pipe. After installing and testing, encase drainage pipe in a minimum of 6 inches of compacted filtering material and wrap in filter fabric, overlapping edges at least 6 inches.

Drainage Backfill: Place and compact drainage backfill of filtering material over subsurface drain, in width indicated, to within 12 inches of final subgrade. Overlay drainage backfill

with one layer of filter fabric, overlapping edges at least 6 inches.

Impervious Fill: Place and compact impervious fill material over drainage backfill to final subgrade.

FILL

Preparation: Remove vegetation, topsoil, debris, wet, and unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placing fills.

Plow strip, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing surface.

Place satisfactory fill material in layers to required elevations as shown on drawings.

MOISTURE CONTROL

Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within 2 percent of optimum moisture content.

Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.

Remove and replace, or scarify and air-dry satisfactory soil material that is too wet to compact to specified density.

Stockpile or spread and dry removed wet satisfactory soil material.

SHEETING

General: Steam, pneumatic or diesel powered hammers shall be used to drive all piling. Any material which stops the driving of sheet piling shall be removed by the Contractor. Payment for removal of such material will be made under the appropriate excavation item.

Permanent Sheet Piling: Under this work, the Contractor shall furnish and place permanent sheet piling of the type and at the locations shown on the plans or as ordered by the Engineer.

All the piling and supports will be left in place as part of the finished structure unless removal of walling and bracing is called for on the plans.

Steel sheet piling shall be new and unused conforming to the requirements of ASTM A328 unless otherwise indicated on the plans. Stock steel may be used. The Contractor shall furnish to the Engineer, certified copies of physical and chemical test results which shall include a sworn statement by a qualified mill representative to the effect that the subject material conforms to the requirements of the steel specified. The materials shall include all necessary walling and bracing required.

Temporary Sheet Piling: This work shall include the requirements specified in permanent sheet piling with the following addition:

The Contractor shall be required to maintain the sheet piling while in place, and remove it from the job site after its function has been accomplished or when ordered by the Engineer.

Unless otherwise shown on the plans, upon completion of the structure, the Contractor may, at his option, remove the sheet piling placed under this work, or leave the same in place after cutting off the tops at the elevation ordered by the Engineer.

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COMPACTION

Place backfill and fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

Place backfill and fill materials evenly on all sides of structures to required elevations. Place backfill and fill uniformly along the full length of each structure.

Percentage Of Maximum Dry Density Requirements: Compact soil to not less than the following percentages of maximum dry density according to ASTM D 1557:

Under structures, building slabs, steps, and pavements, compact the top 12 inches below subgrade and each layer of backfill or fill material at 95 percent maximum dry density.

Around Pipes and Tanks, compact each layer of backfill at 95 percent maximum dry density to 12" above pipes and 18" above tanks.

Under walkways, compact the top 6 inches below subgrade and each layer of backfill or fill material at 95 percent maximum dry density.

Under lawn or unpaved areas, compact the top 6 inches below subgrade and each layer of backfill or fill material at 90 percent maximum dry density.

GRADING

General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.

Provide a smooth transition between existing adjacent grades and new grades.

Cut out soft spots, fill low spots, and trim high spots to conform to required surface tolerances.

Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:

Lawn or Unpaved Areas: Plus or minus 0.10 foot.

Walks: Plus or minus 0.10 foot.

Pavements: Plus or minus 1/2 inch.

Grading Inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 20-foot straightedge.

PROTECTION

Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

Repair and re-establish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or lose compaction due to subsequent construction operations or weather conditions.

Scarify or remove and replace material to depth directed by the Engineer; reshape and recompact at optimum moisture content to the required density.

Settling: Where settling occurs during the Project correction period, remove finished surfacing, backfill with additional approved material, compact, and reconstruct surfacing.

Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible.

DISPOSAL OF SURPLUS AND WASTE MATERIALS

Disposal: Remove surplus satisfactory soil and waste material including unsatisfactory soil, trash, and debris, and legally dispose of it off the Owner's property.

COLD WEATHER PROTECTION

Protect excavation bottoms & sides against freezing when atmospheric temperature is less than 35°F.

GEOTEXTILE FABRICS

Drainage Fabric: Place nonwoven geotextile fabric on subgrade in accordance with manufacturer's recommendations at locations shown on drawings.

Traffic Areas: Place woven stabilization fabric on subgrade in accordance with manufacturer's recommendations at locations shown on drawings.

Pavement: Replace pavement removed or disturbed as a result of work by this contract as specified in Section 02511 and as shown on the drawings.

FIELD QUALITY CONTROL

Quality Control Testing During Construction: Allow testing service to inspect, test & approve each subgrade & fill layer before further backfill or construction work is performed.

Perform field density tests in accordance with ASTM D1556 (sand cone method), ASTM D2167 (rubber balloon method), or ASTM D2922 (nuclear method) as applicable.

Foundation Area: Perform at least one field density test for each 1,000 sq. ft. foundation area. In each compacted fill layer, perform one field density test for each 1,000 sq. ft.

Trench Backfill: In each fill layer, perform at least one field density test for every 100' of trench length.

Traffic Areas: In each compacted fill layer, perform one field density test for every 1,000 sq. ft. of traffic area, but in no case fewer than 3 tests.

Gradation Test:

Trench Backfill: For each differing backfill material, perform at least one gradation test per on-site stockpile per week.

Engineer may order additional test at Contractor's expense, if material delivered is believed to differ significantly from that previously tested.

EROSION CONTROL

Provide erosion control methods in accordance with requirements of authorities having jurisdiction or as shown on plans & specifications.

MAINTENANCE

Protect newly graded areas from traffic & erosion. Keep free of trash & debris.

Repair & re-establish grades in settled, eroded & rutted areas to specified tolerances.

Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape & compact to required density prior to further construction.

Settling: Where settling is measurable or observable at excavated areas during general project warranty period, remove surface, add backfill material, compact & replace surface treatment. Restore appearance, quality & condition of surface or finish to match adjacent work & eliminate evidence of restoration to greatest extent possible.

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SECTION 02300
MAINTENANCE OF SYSTEM FLOWS

PART I - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & other Div. 1 Specification sections, apply to work of this section.

SUMMARY

Under this section, the Contractor is required to furnish all materials, labor, equipment, power, maintenance, etc. to implement a temporary pumping system for the purpose of diverting the existing flow around the work area for the duration of the project.

The design, installation and operation of the temporary pumping system shall be the Contractor's responsibility. The Contractor shall employ the services of a vendor who can demonstrate to the engineer that he specializes in the design and operation of temporary bypass pumping systems. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.

This section also includes the following:

Construction and maintenance of temporary diversion structures including bulkheads, plugs, sandbag dikes, holding ponds, wetwells, pumps, or other structures necessary to maintain gravity sewer wastewater flows and plant operations without causing environmental damage or structural damage.

Dewatering of existing or proposed structures to facilitate access for construction.

Provision of all necessary equipment and power for temporary bypass pumping to transport normal wastewater flow around all work areas.

Work of this contract shall occur at low flow periods to minimize plant impact. The Primary clarifiers can be effectively isolated with existing valves and gates. The MCSD#1 plant operator advises that prior work at the site required higher stop planks, sandbags and plastic to isolate the clarifier tanks. Flows above 1.5 MGD may result in overflow of the scum trough from the operating clarifier into the isolated clarifier. Scum pipe may be plugged during work, but contractor will have to pump the additional water.

QUALITY ASSURANCE

Contractor's Qualifications: The contractor's vendor shall provide at least five (5) references of projects of a similar size and complexity as this project performed by his firm within the past three years.

SUBMITTALS

The Contractor shall submit to the Engineer detailed plans and descriptions outlining all provisions and precautions to be taken by the Contractor regarding the handling of existing wastewater flows. This plan must be specific and complete, including such items as schedules, locations, elevations, capacities of equipment, materials and all other incidental items necessary and/or required to insure proper protection of the facilities, including protection of the access and bypass pumping locations from damage due to the discharge flows, and compliance with the requirements and permit conditions specified in these Contract Documents. No construction shall

begin until all provisions and requirements have been reviewed by the Engineer.

The plan shall include but is not limited to details of the following:

- Staging areas for pumps;
- Sewer plugging method and types of plugs;
- Number, size, material, location and method of installation of suction piping;
- Number, size, material, method of installation and location of installation of discharge piping;
- Bypass pump sizes, capacity, number of each size to be on site and power requirements;
- Calculations of static lift, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted);
- Standby power generator size, location;
- Downstream discharge plan;
- Method of protecting discharge manholes or structures from erosion and damage;
- Thrust and restraint block sizes and locations;
- Sections showing suction and discharge pipe depth, embedment, select fill and special backfill;
- Method of noise control for each pump and/or generator including a noise abatement plan that will ensure that sound levels for all dewatering equipment (pumps, engines, generators) will not exceed 73.5 dba at 23 feet;
- Any temporary pipe supports and anchoring required;
- Design plans and computation for access to bypass pumping locations indicated on the drawings;
- Calculations for selection of bypass pumping pipe size;
- Schedule for installation of and maintenance of bypass pumping lines;
- Plan indicating selection location of bypass pumping line locations.
- The maximum duration of any bypasses of major process units.
- The date and start time of each bypass set-up.
- Procedures for emergency restoration of flows in the event of equipment breakdown or breach of temporary diversion structures.

PART 2 - PRODUCTS

All pumps used shall be fully automatic self-priming units that do not require the use of footvalves or vacuum pumps in the priming system. The pumps may be electric or diesel powered. All pumps used must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of effluent flows.

All pumps shall be Godwin Dri-Prime® Automatic self-priming pumps as manufactured by Godwin Pumps of America, Inc., (856) 467-3636, or approved equal.

The Contractor shall provide the necessary stop/start controls for each pump.

The Contractor shall include one stand-by pump of each size to be maintained on site.

Back-up pumps shall be on-line, isolated from the primary system by a valve.

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Discharge Piping - In order to prevent the accidental spillage of flows all discharge systems shall be temporarily constructed of rigid pipe with positive, restrained joints. Under no circumstances will aluminum "irrigation" type piping or glued PVC pipe be allowed. Discharge hose will only be allowed in short sections and by specific permission from the engineer.

Allowable piping materials will be Godwin "QD" Steel Pipe (Godwin Pumps of America, Inc.) Or fused, high-density polyethylene pipe as manufactured by Phillips Driscopipe, Inc. or equal.

Design Requirements

Bypass pumping systems shall have sufficient capacity to pump the peak flows contained in the table in this specification. The Contractor shall provide all pipeline plugs, pumps of adequate size to handle peak flow, and temporary discharge piping to ensure that the total flow of the main can be safely diverted around the section to be repaired. Bypass pumping system will be required to be operated 24 hours per day.

The Contractor shall have adequate standby equipment available and ready for immediate operation and use in the event of an emergency or breakdown. One standby pump for each size pump utilized shall be installed at the mainline flow bypassing locations, ready for use in the event of primary pump failure.

Bypass pumping system shall be capable of bypassing the flow around the work area and of releasing any amount of flow up to full available flow into the work area as necessary for satisfactory performances of work.

The Contractor shall make all arrangements for bypass pumping during the time when the main is shut down for any reason. System must overcome any existing force main pressure on discharge.

Performance Requirements:

It is essential to the operation of the existing sewerage system that there be no interruption in the flow of sewage throughout the duration of the project. To this end, the Contractor shall provide, maintain and operate all temporary facilities such as dams, plugs, pumping equipment (both primary and back-up units as required), conduits, all necessary power, and all other labor and equipment necessary to intercept the sewage flow before it reaches the point where it would interfere with his work, carry it past his work and return it to the existing sewer downstream of his work.

The design, installation and operation of the temporary pumping system shall be the Contractor's responsibility. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.

The Contractor shall provide all necessary means to safely convey the sewage past the work area. The Contractor will not be permitted to stop or impede the main flows under any circumstances.

The Contractor shall maintain sewer flow around the work area in a manner that will not cause surcharging of sewers, damage to sewers and that will protect public and private property from damage and flooding.

The Contractor shall protect water resources wetlands and other natural resources.

PART 3 - EXECUTION

FIELD QUALITY CONTROL AND MAINTENANCE

Test: The Contractor shall perform leakage and pressure tests of the bypass pumping discharge piping using clean water prior to actual operation. The engineer will be given 24 hours notice prior to testing.

Inspection: Contractor shall inspect bypass pumping system every two hours to ensure that the system is working correctly.

Maintenance Service: The Contractor shall insure that the temporary pumping system is properly maintained and a responsible operator shall be on hand at all times when pumps are operating.

Extra Materials: Spare parts for pumps and piping shall be kept on site as required. Adequate hoisting equipment for each pump and accessories shall be maintained on the site.

PREPARATION

Contractor is responsible for locating any existing utilities in the area the Contractor selects to locate the bypass pipelines. The Contractor shall locate his bypass pipelines to minimize any disturbance to existing utilities and shall obtain approval of the pipeline locations from the City and the Engineer. All costs associated with relocating utilities and obtaining all approvals shall be paid by the Contractor.

During all bypass pumping operation, the Contractor shall protect the Pumping Station and main and all local sewer lines from damage inflicted by any equipment. The Contractor shall be responsible for all physical damage to the Pumping Station and main and all local sewer lines caused by human or mechanical failure.

INSTALLATION AND REMOVAL

The Contractor shall remove manhole sections or make connections to the existing sewer and construct temporary bypass pumping structures only at the access location indicated on the Drawings and as may be required to provide adequate suction conduit.

Plugging or blocking of sewage flows shall incorporate primary and secondary plugging device. When plugging or blocking is no longer needed for performance and acceptance or work, it is to be removed in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.

When working inside manhole or force main, the Contractor shall exercise caution and comply with OSHA requirements when working in the presence of sewer gases, combustible oxygen-deficient atmospheres, and confined spaces.

The installation of the bypass pipelines is prohibited in all saltmarsh/wetland areas. The pipeline must be located off streets and sidewalks and on shoulders of the roads. When the bypass pipeline crosses local streets and private driveways, the contractor must place the bypass pipelines in trenches and cover with temporary pavement. Upon completion of the bypass pumping operations, and after the receipt of written permission from the engineer, the Contractor shall remove all the piping, restore all property to pre-construction condition and restore all pavement. The Contractor is responsible for obtaining any approvals for placement of the temporary pipeline within public ways from the road owner.

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Wastewater flow rate estimates are provided for the following:

WWTP (min)	400 gpm
WWTP (avg)	700 gpm
WWTP (peak)	2,100 gpm

Other Special Considerations for this Project:

Work requiring bypasses shall be scheduled and conducted in accordance with a pre-approved plan prepared by the Contractor and submitted to the Engineer prior to commencement.

Higher flows may be experienced during rainfall events.

Use of existing structures, gates, stop planks, valves, tanks, etc. shall be permitted as approved by the Engineer and only when coordinated with system operational requirements.

Uncontrolled discharges to surface water or drainage courses shall not be permitted.

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SECTION 02511
HOT-MIXED ASPHALT PAVING

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & Div. 1 Specification Sections apply to this Section.

SUMMARY

This Section includes provisions for hot-mixed asphalt paving over prepared subbase and existing pavement and applications of epoxy pavement marking materials.

Prepared subbase is specified in Section 02200, Earthwork.

Proof rolling of prepared subbase is included in this section.

Saw-cutting of edges of existing pavement is specified in this section.

SUBMITTALS

General: Submit the following in accordance with conditions of contract and Division 1 specification sections.

Material Certificates: signed by material producer and contractor, certifying that each material item complies with or exceeds specified requirements and NYSDOT requirements.

SITE CONDITIONS

Weather Limitations: Apply prime and tack coats when ambient temperature is above 50° F (10° C) and when temperature has not been below 35° F (1° C) for 12 hours immediately prior to application. Do not apply when base is wet or contains an excess of moisture.

Construct hot-mixed asphalt surface course when atmospheric temperature is above 40° F (4° F) and when base is dry. Base course may be placed when air temperature is above 30° F (-1° C) and rising.

QUALITY ASSURANCE

Codes and Standards: Comply with NYS Dept. of Transportation standard specifications, latest edition and with Hot-Mix Asphalt Paving Handbook, Appendix 1, US Army Corps of Engineers, published July 1991.

PART 2 - PRODUCTS

MATERIALS

General: Use locally available materials and gradations that exhibit a satisfactory record of previous installations.

Coarse Aggregate: Sound, angular crushed stone, crushed gravel, or properly cured blast furnace slag, gravel, or combinations thereof, complying with ASTM D 1073.

Fine Aggregate: Sharp-edged natural sand or sand prepared from stone, properly cured blast furnace slag, gravel, or combinations thereof, complying with ASTM D 977.

Tack Coat: Emulsified asphalt; ASTM D 977.

Binder: NYSDOT Type 3, 3" min.

Top: NYSDOT Type 6 or 7, 1-1/2" min.

Resurfacing and Driveways: Type 6

PART 3 - EXECUTION

All work will be conducted in a workmanship-like manner and in accordance with procedures and methods as specified in Section 400 of Standard Specifications, Construction and Materials, NYS Dept. of Transportation Design and Construction Division, dated January 1, 1990 including Addenda and Hot-Mix Asphalt Paving Handbook and as outlined below.

Shim & grade subbase prior to paving.

Proof-roll prepared subbase to check for unstable areas and areas requiring additional compaction.

Saw-Cut and mill edges of existing pavement to provide a clean neat appearance prior to placing new pavement.

Notify Site Contractor of unsatisfactory conditions. Do not begin paving work until deficient subbase areas have been corrected and are ready to receive paving.

Tack Coat: Apply to contact surfaces of previously constructed asphalt or Portland cement concrete and surfaces abutting or projecting into hot-mixed asphalt pavement as well as between all lifts of new hot-mixed asphalt. Distribute at rate of 0.05 to 0.15 gal. per sq. yd. of surface.

Allow to dry until at proper condition to receive paving.

PLACING MIX

General: Place hot-mixed asphalt mixture on prepared surface, spread, and strike off. Spread mixture at minimum temperature of 225° F (107° C). Place areas inaccessible to equipment by hand. Place each course to required grade, cross-section, and compacted thickness to meet the existing surrounding grade.

Paver Placing: Place in strip widths acceptable to Engineer. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Complete base course for a section before placing surface course.

Immediately correct surface irregularities in finish course behind paver. Remove excess material forming high spots with shovel or lute.

Joints: Make joints between old and new pavements, or between successive days' work, to ensure continuous bond between adjoining work. Construct joints to have same texture, density, and smoothness as other sections of hot-mixed asphalt course. Clean contact surfaces and apply tack coat.

ROLLING

General: Begin rolling when mixture will bear roller weight without excessive displacement.

Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.

Breakdown Rolling: Accomplish breakdown or initial rolling immediately following rolling of joints and outside edge. Check surface after breakdown rolling and repair displaced areas by loosening and filling, if required, with hot material.

Second Rolling: Follow breakdown rolling as soon as possible, while mixture is hot. Continue second rolling until mixture has been evenly compacted.

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Finish Rolling: Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until roller marks are eliminated and course has attained maximum surface density.

Patching: Remove and replace paving areas mixed with foreign materials and defective areas. Cut out such areas and fill with fresh, hot hot-mixed asphalt. Compact by rolling to maximum surface density and smoothness.

Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

Field Quality Control: Test in-place courses through an independent testing agency for compliance with requirements for thickness, compaction, and surface smoothness as per NYSDOT Section 400. Repair or remove and replace unacceptable paving as directed by Engineer and or NYSDOT. Provide material from a NYSDOT approved hot-mixed asphalt plant only.

Asphalt Handwork: Includes, but is not limited to:

asphalt wing and drop gutters that can not be completed by paving machines or attachments and shall include all costs to "box-out" the area to be paved. As noted in other sections of the specification, all other normal handwork required to meet existing driveways around drainage structures and other areas as part of the normal paving work, shall be included in the bid amount.

Trench Settlement: Contractor shall place T&L course to shim settled areas in binder course. Contractor shall key any settled pavement repairs made to top course. No payment shall be made to correct settlement.

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SECTION 02665
PIPING - DUCTILE & CAST IRON PIPE

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & Div. 1 Specification sections, apply to work of this section.

DESCRIPTION OF WORK

Furnish & install all ductile iron pipe, fittings, valves, accessories & specials indicated on drawings and as specified herein.

Refer to Div. 2 section *Earthwork* for excavation & backfill required for buried piping.

QUALITY ASSURANCE

Manufacturer's Qualifications: Firms regularly engaged in manufacture of ductile iron materials & products, of types & sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.

Installer's Qualifications: Firm with least 3 years of successful installation experience on projects with piping work similar to that required for project.

Codes & Standards:

Plumbing Code Compliance: Comply with applicable portions of National Standard Plumbing Code pertaining to selection & installation of water piping materials & products.

Water Purveyor Compliance: Comply with requirements of Purveyor supplying water to project, obtain required permits and inspections.

SUBMITTALS

Product Data: Submit manufacturer's technical product data & installation instructions for potable water system materials & products.

Shop Drawings: Submit shop drawings showing piping materials, size, locations & elevations. Include details of underground structures, connections, thrust blocks & anchors, pipe supports and sleeves. Show interface & spatial relationship between piping & adjacent structures.

Record Drawings: At project closeout, submit record drawings of installed piping & products, in accordance with requirements of Div. 1.

Maintenance Data: Submit maintenance data & parts lists for piping materials & products. Include this data, product data, shop drawings & record drawings in maintenance manual; in accordance with requirements of Div. 1.

REFERENCE STANDARDS

ANSI/AWWA C104/A21.4: Standard for Cement-Mortar Lining for Ductile-Iron Pipe & Fittings for Water.

ANSI/AWWA C110/A21.10: Standard for Ductile Iron & Gray-Iron Fittings, 3 in. through 48 in. for Water & Other Liquids.

ANSI/AWWA C115/A21.15: Standard for Flanged Ductile Iron & Gray-Iron Pipe with Threaded Flanges stresses.

ANSI/AWWA C151/A21.10: Standard for Ductile Iron Pipe, Centrifugally Cast in Metal Molds of Sand-lined Molds for Water or Other Liquids.

ANSI/AWWA C153/A21.53: Standard for Ductile Iron Compact Fittings, 3 in. through 12 in. (75 mm through 300 mm) for Water & Other Liquids.

AWWA C600: Standard for Installation of Ductile Iron Water Mains & their appurtenances.

AWWA C651: Standard for Disinfecting Water Mains.

ANSI/AWWA C800: Standard for Underground Service Line Valves & Fittings.

AWWA: Handbook of Occupational Safety & Health Standards for Water Utilities, Denver, CO (1974).

OSHA 29 CFR 1986: Health Regulations for Construction (available from Government Printing Office, 720 N. Main, Pueblo, CO 81003).

ASTM A-74: Standard Specifications for Hub and Spigot Cast Iron Soil Pipe and Fittings.

ASTM C-564: Standard Specifications for Rubber Gaskets for Cast Iron Soil Pipe and Fittings.

PART 2 - PRODUCTS

MATERIALS

Pipe: Class 52, double-cement lined, ductile iron pipe with push-on or mechanical type joints for burial service

Class 53 minimum double cement lined, ductile iron pipe with flanged or grooved-end type joints for exposed service.

Fittings: All fittings shall be standard or compact ductile iron, cement-lined. Ductile iron mechanical joint and push-on joint fittings sizes 3" to 24" shall be rated for 350 psi working pressure. Ductile iron flange joints 3" to 24" shall be rated 250 psi working pressure. All types of joints for ductile iron pipe 30" to 48" shall be rated for 250 psi working pressure. Buried service fittings shall be mechanical joint and exposed service fittings shall be flanged joint.

Thrust Restraint: shall be accomplished by using tie rods, retainer glands, pipe manufacturer's approved restrained joint pipe system (such as "Field Lok" gaskets), and thrust blocks in accordance with standard details, and as approved by Engineer.

Tie rods for all pipe sizes are to be low carbon steel threaded rod 3/4" diameter. Install per manufacturer's requirements.

Mechanical joint retainer glands shall be ductile iron heat treated to minimum of 370 BHN. Gland dimensions shall meet standard fitting properties for use with mechanical joint bell and tee head bolts. Glands to have restraining mechanism which impacts multiple wedging action against pipe. Twist off nuts shall be used to ensure proper installation. Glands to be Megalug Series 1100 by EBBA Iron or approved equal.

Thrust blocks shall be cast in place 4000 psi (min. 28 day strength) concrete sized and located per standard details. Pipe and fittings shall be wrapped in 6-10 mil poly prior to placing concrete. Thrust blocks will be required in addition to any other form of thrust restraint approved by Engineer.

GROOVED PIPE & FITTINGS

In lieu of flanged pipe and fittings, the contractor may use mechanical grooved pipe couplings and fittings as manufactured by Victaulic Co. of America, Star Pipe Products, or approved equal, on all above grade ductile iron piping systems. Grooved end product manufacturer to be ISO-9001 certified. Grooved pipe couplings and fittings shall conform to the following requirements:

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Pipe Materials – Grooved end ductile iron pipe shall be grooved in accordance with AWWA Standard C606. Rigid radius groove dimensions shall be utilized unless otherwise approved by the engineer.

Couplings – Couplings shall be Victaulic Style 31, Star Pipe or approved cast of ductile iron conforming to ASTM A-536. Gaskets shall be “Flush Seal” design molded of synthetic rubber specially compounded to conform to ductile iron pipe surfaces. Gasket material shall be Grade “S” Nitrile for process applications.

Fittings – Fittings shall be ductile iron ASTM A-536, or Cast Iron ASTM A-48, conforming to the requirements of AWWA C110 for center to end dimensions, AWWA C153 or AWWA 21, 10/AWWA C110 for wall thickness, and AWWA C606 rigid radius grooving dimensions for end preparation. Provide coatings and linings for specified piping systems in accordance with applicable section of mechanical piping specification.

Grooved/Flanged Transition Components – A Flange adapter may be used to facilitate connections from grooved fittings/pipe to flanged components. Gasket material to match those used in the standard couplings. Transition between 3" - 12" IPS pipe and ductile iron pipe may be made with a coupling with the gasket material to match other couplings.

Assembly – 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. The gasket style and elastomeric material (grade) shall be verified as suitable for the intended service. Assemble all grooved components per the manufacturers recommendations.

FLANGED PIPE & FITTINGS

Process Wastewater & Sludge Transfer Piping shall be minimum Class 53 double cement lined asphalt coated ductile iron pipe as manufactured by US Pipe, Atlantic States Pipe or approved equal. Fittings shall be ductile iron or gray iron rated for a working pressure of 250 psi. Buried fittings shall be rubber gasketed mechanical joint by Pipeline Components, Star Pipe or approved equal. Exposed fittings shall be flanged as manufactured by Star Pipe, American or approved equal.

ACCESSORIES

Couplings: Above grade couplings shall be standard weight, 7" long, compression type with ASTM A715 Grade 80 HSLA (high strength low alloy) steel followers, HSLA bolts & nuts and blue shopcoat enamel finish; Smith Blair Model 411, Ford or approved equal.

Above grade air piping couplings shall also be Smith Blair Model 411, Ford or approved equal; however the manufacturer's Grade 60 high temperature gasket material shall be used.

Buried pipe couplings, for all but air piping, shall be 5" long, ductile iron cast (straight or transition as required) couplings; Smith Blair Model 441 “Omni”, Ford or approved equal. Provide Grade 60 gasket material for air piping.

Pipe Supports: All piping shall be properly supported & restrained against anticipated thrusts & to prevent severe bending & thermal stresses. Pipe supports shall be concrete or galvanized steel products normally used for pipe support & restraint. Pipe supports shall be as manufactured by Empire, Grinnell, or equal.

Thread Rod: Coat all buried galvanized thrust restraint rods with two coats of bitumastic paint.

PART 3 - EXECUTION

INSTALLATION

General: Install in accordance with industry & reference standards. Keep interior of pipe clean during installation. Plug or cap exposed ends of pipe at end of each work period to prevent entrance of debris & animals. Trenches shall be constructed to lines, grades & depths shown on drawings & as specified in other sections. Trenches shall be dewatered as necessary to provide for proper construction of pipe bedding and/or subgrade preparation.

PRESSURE & LEAKAGE TESTING

General: All installed piping and fittings shall be pressure and leakage tested in accordance with AWWA C600 at the specified pressure for a duration of 2 hours.

Before testing air shall be expelled from piping. The leakage test shall be conducted concurrently with the pressure test. Leakage is defined as the quantity of water that must be added to the test section to maintain the pressure within 5 psi of the specified test pressure. If the actual leakage exceeds the computed allowable leakage the Contractor shall, at his own expense, locate and make repairs and retest the pipe as necessary. All visible leaks shall be repaired regardless of the amount of leakage measured.

Process Wastewater and Sludge Transfer Piping: 75 psi.

Potable Water Piping: 150 psi.

Gravity Drains & Sewer Outfall: All installed piping and fittings shall be low pressure air and leakage tested in accordance with the time pressure drop method.

The Contractor shall plug the ends of the pipe to be tested and induce a pressure of 3-1/2 psi gauge in the pipe. The air supply is then disconnected and the time required for the pressure to drop by 1/2 psi gauge is determined. The minimum time duration permitted for the prescribed low pressure exfiltration pressure drop between two consecutive manholes shall not be less than that shown in Table No. 1 (see on page 3):

The contractor shall take the following precautions during the low-pressure air test in addition to other recommended safety precautions:

1. Plugs should be securely braced.
2. Plugs should not be removed until all air pressure in test section has been reduced to ambient pressure.
3. No one shall be allowed in the trench or manhole while the test is being conducted.
4. The testing apparatus shall be equipped with a pressure relief device to prevent the possibility of loading the test section with full compressor capacity.

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TABLE NO. 1

**SPECIFICATION TIME REQUIRED FOR A 0.5 PSIG PRESSURE DROP
FOR SIZE AND LENGTH OF PIPE INDICATED FOR Q = 0.0015”**

1 Pipe Diameter (in)	2 Minimum Time (min: sec)	3 Length for Minimum Time (ft)	4 Time for Longer Length (sec)	Specified Minimum for Length (L) Shown (min:sec)							
				100 ft	150 ft	200 ft	250 ft	300 ft	350 ft	400 ft	450 ft
4	1:53	597	.190 L	1:53	1:53	1:53	1:53	1:53	1:53	1:53	1:53
6	2:50	398	.427 L	2:50	2:50	2:50	2:50	2:50	2:50	2:51	3:12
8	3:47	298	.760 L	3:47	3:47	3:47	3:47	3:48	4:26	5:04	5:42
10	4:43	239	1.187 L	4:43	4:43	4:43	4:57	5:56	6:55	7:54	8:54
12	5:40	199	1.709 L	5:40	5:40	5:42	7:08	8:33	9:58	11:24	12:50

*Q is the allowable leakage rate in cu. ft/min/ft² of inside surface area of pipe

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**SECTION 02900
LANDSCAPING / RESTORATION**

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & Div. 1 & Div. 2 Spec. Sections, apply to this Section.

DESCRIPTION OF WORK

Work under this section includes topsoil, conditioning, spreading & furnishing, placement of seeding & mulching, and vegetative planting and first mowing.

Topsoil layer or top vegetative growth layer must be suitable to maintain vegetative growth. The Contractor may submit an alternative soil material in lieu of the topsoil specification for approval. In either case it is the Contractor's responsibility to ensure full coverage of new grass is established. Contractor must amend soil as necessary to ensure growth by means such as fertilizer, mulching, pH adjustment, etc. Unacceptable areas must be reseeded and finished grades maintained until entire seeded area has 100% fully established grass coverage and is approved by Engineer. Contractor shall be responsible for the first mowing of newly established areas.

All areas disturbed by Contractor's work in connection with this project will be restored to original condition and/or line & grade shown on plans.

QUALITY ASSURANCE

Contractor shall furnish & place topsoil at locations disturbed by construction & as shown on drawings, including but not limited to, fine grading of subgrade, furnishing, handling & placing topsoil including all labor, materials, tools & equipment necessary to complete work. Unless otherwise shown on drawings, all areas to be seeded shall be prepared by placing of topsoil.

SUBMITTALS

General: Submit the following in accordance with Conditions of Contract & Div. 1 Specification Sections.

Topsoil: Submit laboratory test reports for gradation, pH, organic content, USDA soil texture classification and chemical makeup if requested.

Plant & Material Certifications:

Send vendor's certified statement for each grass seed mixture required, stating botanical & common name, percentages by weight & percentages of purity, germination & weed seed for each grass seed species.

DELIVERY, STORAGE & HANDLING

Packaged Materials: Deliver packaged materials in containers showing weight, analysis & name of manufacturer. Protect materials from deterioration during delivery & while stored at site.

JOB CONDITIONS

Utilities: Determine location of underground utilities & perform work in manner which will avoid possible damage. Hand excavate, as required.

Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions or obstructions, notify Engineer before planting.

SEQUENCING & SCHEDULING

Planting Time: Proceed with & complete landscape work as rapidly as portions of site become available, working within seasonal limitations for each kind of landscape work required.

Plant or install materials during normal planting seasons for each type of plant material required.

SPECIAL PROJECT WARRANTY

Warranty seeded areas until one year past date of final acceptance.

PART 2 - PRODUCTS

TREES

General: Replace trees felled or damaged due to work of this contract with same species.

TOPSOIL

Topsoil will be stockpiled for reuse in landscape work under Section 02110. If quantity of stockpiled topsoil is insufficient, provide additional topsoil as required to complete landscape work.

Provide new topsoil which is fertile, friable, natural loam, surface soil, reasonably free of subsoil, clay lumps, brush, weeds & other litter & free of roots, stumps, stones larger than 2" in any dimension & other extraneous or toxic matter harmful to plant growth. Topsoil shall be formulated from high quality organic and inorganic materials derived from one or more of the following: peat, forest products, compost, manure, ash, sand or native topsoil.

All suitable topsoil from site shall be stockpiled & reused as required by contract specifications. Additional topsoil, as required, shall conform to applicable provisions of NYS Dept. of Transportation's Standard Specifications, Section 713-01 - "Topsoil" & shall meet the following requirements unless otherwise specifically stated on drawings, or as required by contract specifications:

pH of material shall be between 5.5 & 7.6. Organic content shall be not less than 2% no more than 20%. Gradation shall be:

<u>Sieve Size</u>	<u>% Passing by Weight</u>
2 inch	100
1 inch	85 to 100
1/4 inch	65 to 100
No. 200 mesh	20 to 80

The Contractor may amend natural topsoil with approved materials and by approved methods to meet the above specifications.

GRASS MATERIALS

Grass Seed: Provide seed mixture composed as follows:

<u>% by Weight</u>	<u>Species or Variety</u>	<u>% of Germination</u>	<u>% of Purity</u>
65	Creeping Red Fescue	85	95
25	Perennial Rye	90	90
10	Kentucky Blue Grass	90	90

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MISCELLANEOUS MATERIALS

Mulch: Provide clean, seed free salt hay or threshed straw of wheat, rye, oats or barley.

PART 3 - EXECUTION

PREPARATION

Preparation of Planting Soil:

Clean topsoil of roots, plants, sods, stones, clay lumps & other extraneous materials harmful or toxic to plant growth.

Fine grade planting areas to smooth, even surface with loose, uniformly fine texture. Roll, rake & drag areas to be seeded, remove ridges & fill depressions as required to meet finish grades. Limit fine grading to areas that can be planted immediately after grading.

Moisten prepared planting areas before planting if soil is dry. Water thoroughly & allow surface moisture to dry before seeding areas. Do not create muddy soil condition.

Apply Starter Fertilizer with a ratio of 20-27-5 (nitrogen-Phosphorous, potassium) as recommended by manufacturer.

Seed specified mixture and mulch at a rate recommended by manufacturer.

Restore seeded areas to specified condition if eroded or otherwise disturbed after fine grading & prior to planting.

First mowing of seeded areas once grass height has reached a minimum of 3" high.

Restore all areas in which work will not occur within 21 days of pipe installation.

CLEANUP & PROTECTION

Protect landscape work & materials from damage due to landscape operations, operations by other contractors & trades & trespassers. Maintain protection during warranty periods. Treat, repair or replace damaged landscape work as directed.

INSPECTION & ACCEPTANCE

When landscape work is completed & new grass has established, Engineer will, upon request, make inspection to determine acceptability.

Landscape work may be inspected for acceptance in parts agreeable to Engineer, provided work offered for inspection is complete.

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SECTION 03200
CONCRETE REINFORCEMENT

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including General & Supplementary Conditions & Div. 1 Specification sections, apply to work of this section.

DESCRIPTION OF WORK

Work under this section includes furnishing & installation of concrete reinforcement.

Related Sections: Following sections contain requirements that relate to this section: §03310 *Concrete Work* & §03400 *Precast Concrete Structures*.

QUALITY ASSURANCE

Certification: Submit data substantiating that materials comply with specified requirements.

SUBMITTALS

Submit Placing Drawings showing the number, size, length and location of the reinforcing steel. Placing drawings include details showing proper placement of reinforcing bars in the forms and bar lists showing bills of material for each part of each structure scheduled to receive reinforcing. Submit drawings in accordance with Section 01300, Submittals.

PART 2 - PRODUCTS

MATERIALS

Reinforcing Bars: Conform to ASTM A615, Grade 60, deformed bars.

Welded Wire Fabric: Conform to ASTM A185, welded steel wire fabric.

PART 3 - EXECUTION

General: Comply with CRSI Recommended Practices for Placing Reinforcing Bars.

Clean reinforcement of loose rust & mill scale, earth, ice & other materials which reduce or destroy bond with concrete.

Accurately position, support & secure reinforcement. Place reinforcement to obtain required coverages for concrete protection.

Install welded wire fabric in as long lengths as practicable. Lap adjoining pieces at least one full mesh & lace splices with wire.

Set welded wire fabric in final position prior to pouring concrete. No hooking & lifting of welded wire fabric during concrete placement is permitted.

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SECTION 03310
CONCRETE WORK

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including Gen. & Supplementary Conditions & Div. 1 Spec. sections, apply to work of this section.

DESCRIPTION OF WORK

Extent of concrete work is shown on drawings.

Related Sections: Following sections contain requirements that relate to this section: §03200 *Concrete Reinforcing* & §03400 *Precast Structures*.

QUALITY ASSURANCE

Codes & Standards: Comply with provisions of following codes, specifications & standards, except where more stringent requirements are shown or specified:

ACI 301 Specifications for Structural Concrete for Buildings.

ACI 318 Building Code Requirements for Reinforced Concrete.

ACI 306R 88 Cold Weather Concreting.

ACI 305R 91 Hot Weather Concreting.

Concrete Reinforcing Steel Inst., Manual of Standard Practice.

Concrete Testing Service: Employ, at Contractor's expense testing laboratory acceptable to Engineer to perform material evaluation tests & to design concrete mixes. On-site preplacement testing shall include tests for temperature, slump, air-entrainment & cylinder for strength testing. Written reports of test results shall be provided to Engineer for all tests.

Materials & installed work may require testing & retesting, at anytime during progress of work. Tests, including retesting of rejected materials & installed work, shall be done at Contractor's expense.

SUBMITTALS

Submit concrete design mix for each type & strength of concrete. Submit certifications substantiating that materials comply with specified requirements.

PART 2 - PRODUCTS

FORM MATERIALS

Forms for Exposed Finish Concrete: Unless otherwise indicated, construct exposed concrete surface formwork with plywood, metal, metal-framed plywood faced or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces. Furnish in largest practicable sizes to minimize number of joints. Provide form material of sufficient thickness to withstand pressure of newly-placed concrete without bow or deflection.

Forms for Unexposed Finish Concrete: Form concrete surfaces which will be unexposed in finished structure of plywood, lumber, metal or other acceptable material. Provide lumber dressed on at least two edges & one side for tight fit.

Form Coatings: Provide commercial formulation form-coating compounds that will not bond with, stain nor adversely affect concrete surfaces & will not impair subsequent treatments of concrete surfaces.

Form Ties: For concrete walls or slabs exposed to water or wastewater, use non-metallic form ties as manufactured by RJD Industries, Inc. or waterseal type form ties as manufactured by Symons, Burke, or approved equal.

CONCRETE MATERIALS

Portland Cement: ASTM C150, Type 2.

Use one brand of cement throughout project, unless otherwise acceptable to Engineer.

Normal Weight Aggregates: ASTM C33 & as herein specified. Provide aggregates from single source for exposed concrete.

Do not use fine or coarse aggregates containing spalling-causing deleterious substances.

Local aggregates not complying with ASTM C33 but which have shown by special test or actual service to produce concrete of adequate strength & durability may be used when acceptable to Engineer.

Water: Clean & free from oil, acid & injurious materials & amounts of vegetable matter, alkalis & salts.

Air-Entraining Admixture: ASTM C260.

Water Reducer: ASTM C494.

High Range Water Reducer: ASTM C494.

Calcium chloride or admixtures containing more than 0.1% chloride ions are not permitted.

Fly Ash: Conform to chemical & physical requirements for mineral admixture, Class F listed in ASTM C618 including Table 2 (except footnote A). Loss on ignition shall not exceed 4.0%.

Synthetic Fibers: Polypropylene fibers meeting material and performance requirements of ASTM C-1116 and C-1018 toughness requirements of Index I 5 for fiber requirements. Fibers shall be fibrillated graded fibers as manufactured by Fiber Mesh, Grace, Forta or approved equal.

RELATED MATERIALS

Absorptive Cover: Burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd., complying with AASHTO M 182, Class 2.

Moisture-Retaining Cover: One of the following, complying with ASTM C171.

Waterproof paper.

Polyethylene film.

Polyethylene-coated burlap.

Exterior Slab Coating: Salt guard penetrating sealer as "Consolideck" manufactured by Prosoco Inc., Vexcon "Powerseal", or approved equal. Do not use on surfaces in contact with potable water.

Curing Compound: Meeting requirements of ASTM C-309 & AASHTO, A.H. Harris Super Kur Seal 800, Vexcon Starseal Gray or approved equal.

Sealing Compound: Meeting AASHTO M-148, A.H. Harris Super Kur Hard, Vexcon Starseal PS or approved equal.

Curing and sealing compounds applied to surfaces in contact with potable water shall meet NSF Standard 61.

Compounds used for curing and sealing concrete shall not be adversely affected by prior treatments or adversely affect subsequent treatments.

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PROPORTIONING & DESIGN OF MIXES

Prepare design mixes for each type & strength of concrete by either laboratory trial batch or field experience methods as specified in ACI 301. If trial batch method used, use independent testing facility acceptable to Engineer for preparing & reporting proposed mix designs. Testing facility shall not be same used for field quality control testing unless otherwise acceptable to Engineer.

Design mixes to provide normal weight, sulfate resistant, concrete with the following properties.

28-day Compressive Strength: 3000 psi, minimum.

Total Cement Content: 610 lbs. per cubic yard, minimum.

Pozzolan Content: Allowable to replace up to 20% of Portland Cement, pound for pound, with fly ash.

Water/Cement Ratio (w/c): 0.42, maximum.

Use air-entraining admixture in all concrete, unless otherwise indicated. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having total air content of 6.5% with tolerance of $\pm 1.5\%$.

Slump Limits: Proportion & design mixes to result in maximum concrete slump of not more than 4" plus a tolerance of 1/2" at point of placement. All concrete with slumps exceeding this value shall be rejected.

High Range Water Reducers may be added at the manufacturer's prescribed rate to result in a maximum slump of 7" at point of placement. All concrete with high range water reducers that exceeds this value will be rejected.

Synthetic Fibers: Add fibers in accordance with manufacturer's recommendations. Add fibers at a minimum of 1.5 lbs. per cubic yard (0.1% by volume). Unless otherwise noted, use synthetic fiber reinforced concrete for all building floor slabs, sidewalks, walkways, floor or roof toppings, and as shown on drawings. Synthetic fibers are used in addition to standard reinforcement shown on the drawings and as specified.

CONCRETE MIXES

Job-Site Mixing: Mix materials for concrete in appropriate drum type batch machine mixer. For mixers of 1 cu. yd. or smaller capacity, continue mixing at least 1.5 min., but not more than 5 min. after ingredients are in mixer, before any part of batch is released. For mixers of capacity larger than one cu. yd., increase minimum 1.5 min. of mixing time by 15 sec. for each additional cu. yd. or fraction thereof.

Provide batch ticket for each batch discharged & used in work, indicating project identification name & number, date, mix type, mix time, quantity & amount of water introduced.

Ready-Mix Concrete: Comply with requirements of ASTM C94 & as herein specified.

During hot weather or under conditions contributing to rapid setting of concrete, shorter mixing time than specified in ASTM C94 may be required.

EXPANSION JOINT

1/2" thick asphalt and fiber meeting ASTM D994 with joint sealant as specified.

WATERSTOP

SYNKO-FLEX adhesive waterstop as manufactured by Synko-flex Products, Inc., Adeka Ultraseal, or Vynilex ribbed center bulb 9" length or approved equal.

JOINT SEALANT

Premium grade, moisture curing, 1-component, polyurethane based, non-sag elastomeric sealant, meeting ASTM C-920, Type S, Grade NS. Where sealant is exposed to potable water, use NSF approved sealant for potable water applications. Use Sikaflex 1A with backer rod as manufactured by Sika Corporation, Sonoplastik Sonneborn or approved equal.

CRACK & FORM TIE SEALANT

Plug holes and cracks with a hydraulic cement product, "Waterplug" as manufactured by ThoroSystems Products, "Waterstop" by Symons, or approved equal.

EXTERIOR FORM TIES BELOW GRADE

Patch holes with trowel applied fiber reinforced mastic roof cement.

CLARIFIER FLOOR TOPPING

The 4,000 psi cement grout topping shall meet the following:

Cement	600 lbs
Fly Ash	105 lb
Fine Aggregate	1600 lbs
Coarse Aggregate #1's	1420 lbs
Water Reducer	14.1 oz
Visco	21.1 oz
Fiber	1.5 lbs
Water	34 gal
Entrained Air	0%
Water/Cement Ratio	0.40
Slump	4" +1"-

An epoxy modified cementitious bonding agent suitable for submerged applications, Sika Armatec 110 EpoCem, or approved equal, shall be applied to all surfaces receiving grout topping. Any shrinkage cracks shall be repaired using Sikadur 35, Hi-Mod LV LPL.

PART 3 - EXECUTION

FORMS

Design formwork to be readily removable without impact, shock or damage to cast-in-place concrete surfaces & adjacent materials.

REINFORCEMENT

Place in accordance with §03200, Concrete Reinforcement.

JOINTS

Splices of horizontal reinforcing of all walls shall be staggered horizontally to prevent vertical alignment of splices.

Construction Joints: Locate & install construction joints so as not to impair strength, function, & appearance of structure, as acceptable to Engineer. Submit pouring plan showing proposed construction joint locations.

Expansion Joints: Install expansion joint filler in locations shown on drawings or as approved by Engineer. Set filler 1/2" down and seal top of joint with sealant, as specified.

Contraction Joints: Use saw cuts 1/8" x 1/4 of slab depth, unless otherwise indicated. Locate as shown on the drawings or as approved by Engineer.

PREPARATION OF FORM SURFACES

Clean reused forms of concrete matrix residue, repair & patch as required to return forms to acceptable surface conditions.

Coat contact surfaces of forms with form coating compound.

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Place construction joints perpendicular to main reinforcement. Continue reinforcement across construction joints.

Waterstops: Provide waterstops in construction joints as indicated. Install waterstops to form continuous diaphragm in each joint and adjoining joints in accordance with manufacturer's requirements. Protect waterstop from damage and keep waterstop and keyway clean prior to concrete encasement. Make provisions to support & protect exposed waterstops during progress of work. Fabricate field joints in waterstops in accordance with manufacturer's printed instructions.

INSTALLATION OF EMBEDDED ITEMS

General: Set & build into work anchorage devices & other embedded items required for other work that is attached to, or supported by, cast-in-place concrete. Use setting drawings, diagrams, instructions & directions provided by suppliers of items to be attached thereto.

Edge Forms & Screed Strips for Slabs: Set edge forms or bulkheads & intermediate screed strips for slabs to obtain required elevations & contours in finished slab surface. Provide & secure units sufficiently strong to support types of screed strips by use of strike-off templates or accepted compacting type screeds.

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CONCRETE PLACEMENT

General: All concrete shall be conveyed, placed, consolidated, finished and cured in accordance with pertinent ACI standards.

Cold Weather Placing: Protect concrete work from physical damage or reduced strength which could be caused by frost, freezing actions or low temperatures, in compliance with ACI 306 & as herein specified.

When air temperature has fallen to or is expected to fall below 40°F (4°C), uniformly heat water & aggregates before mixing to obtain concrete mixture temperature of not less than 50°F (10°C) & not more than 80°F (27°C) at point of placement.

Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.

Do not use calcium chloride, salt & other materials containing antifreeze agents or chemical accelerators, unless otherwise accepted in mix designs.

Hot Weather Placing: When hot weather conditions exist that would seriously impair quality & strength of concrete, place concrete in compliance with ACI 305 & as herein specified.

Cool ingredients before mixing to maintain concrete temperature at time of placement below 90°F (32°C). Mixing water may be chilled or chopped ice may be used to control temperature provided water equivalent of ice is calculated to total amount of mixing.

Vibration/consolidation: Vibrate & consolidate concrete in forms to assure monolithic homogeneous concrete section within forms & to prevent voids & "bug holes" on exposed surfaces. Avoid over vibration or fluidization of concrete to prevent aggregate segregation. Vibration shall not be used to move concrete to its final position within forms in lieu of moving chute or placement conduit.

TESTING

1. Set of 6 cylinders shall be taken for each 100 cu. yd. of concrete, or fraction thereof, placed in 1 day. 2 cylinders shall be tested at 7 days, 2 at 28 days, & 2 held as a spares.
2. Slump tests on each delivery shall be taken, prior to placement.
3. Air tests and concrete temperatures shall be taken on every delivery, or at intervals approved by Engineer, prior to placement.
4. Provide batch ticket for each delivery.

CONCRETE CURING & PROTECTION

General: Protect freshly placed concrete from premature drying & excessive cold or hot temperatures. Perform curing procedures in accordance with ACI 308, *Recommended Practice for Curing Concrete* using water methods, sealing materials, or membrane forming curing compounds.

Curing Methods: Surfaces exposed to drying wind shall be covered with polyethylene sheets immediately after finishing, or flooded with water, or shall be water cured continuously from time concrete has taken initial set. Curing compounds may be used in conjunction with water curing, provided they are compatible with coatings that may be later applied or they are degradable.

Curing Period: Keep concrete continuously moist for not less than 21 days. If curing compounds are used, reapply compound at intervals to provide required curing period. Maintain concrete above 50°F for the entire curing period.

REMOVAL OF FORMS

Formwork not supporting weight of concrete may be removed after cumulatively curing at not less than 50°F (10°C) for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form removal operations & provided curing & protection operations are maintained.

REUSE OF FORMS

Clean & repair surfaces of forms to be reused in work. Split, frayed, delaminated or otherwise damaged form facing material will not be acceptable for exposed surfaces. Apply new form coating compound as specified for new formwork.

FINISHES

Provide the following finishes to concrete surfaces:

1. Building/tank slabs; smooth mechanical float finish.
2. Visible foundation & tank walls; sack rubbed finish for uniform appearance.
3. Sidewalks; broom finish with edger.

Confirm finishes with Engineer prior to finishing concrete.

SEALING CONCRETE

Coat slabs exposed to vehicle traffic using saltguard sealer as specified herein. Cure and protect slabs and clean prior to application of sealer, all in accordance with manufacturer's requirements.

Seal all slabs & exposed concrete surfaces not scheduled for cementitious damproofing or in contact with potable water, using sealing compound as specified herein. Apply in accordance with manufacturer's requirements.

CONCRETE SURFACE REPAIRS

Patching Defective Areas: Repair & patch defective areas & wall tie holes with hydraulic cement as specified immediately after removal of forms, when acceptable to Engineer. Patching is not required for non-metallic form ties which have been ground off flush with concrete face.

Joints to be sealed after removal of forms & prior to service as shown on drawings. Seal joints with joint sealer specified in accordance with manufacturer's recommendations.

Chase, clean & seal shrinkage cracks using hydraulic cement specified in accordance with manufacturer's recommendations. Repair cracks on interior and exterior faces of walls and where accessible on slabs.

LEAKAGE REPAIRS

Visible leaks: Shall be repaired using a method acceptable to Engineer and using potable water approved epoxy adhesive/grout, chemical grout, or hydraulic cement. If leaks return or are not repaired fully, Contractor is responsible to return and make repairs until leakage stops.

EXTERIOR FOUNDATION DAMPROOFING

Apply two coats of waterproofing in accordance with manufacturer's recommendations, to exterior of all concrete walls below grade.

CEMENTITIOUS DAMPROOFING COATING

Apply coating products in accordance with manufacturer's recommendations to interior and exterior exposed surfaces indicated on the drawings, foundation walls and all areas shown on drawings. Apply two coats of product or approved equal for coating systems. Do not apply to interior of liquid storage containers, unless approved by Engineer.

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SECTION 05500
METAL FABRICATIONS

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including Gen. & Supplementary Conditions & Div. 1 Spec. Sections, apply to work of this Section.

SUMMARY

This section includes the following metal fabrications:

- Loose bearing & leveling plates.
- Applications where framing & supports are not specified in other sections.
- Floor plate & supports.

Related Sections: The following sections contain requirements that relate to this section:

Div. 9 Section 09900 *Painting*.

DEFINITIONS

Definitions in ASTM E985 for railing-related terms apply to this section.

SUBMITTALS

General: Submit the following in accordance with Conditions of Contract & Div. 1 Specification Sections.

Measurements: Prior to preparation of shop drawings, Contractor shall take sufficient measurements to determine or verify existing conditions and dimensions. Contractor is responsible to coordinate fabrication of box beam guide railing with actual dimensions of existing structure and proposed features.

Product Data: Submit manufacturer's technical product data & installation instructions.

Do not make substitutions: If specified material is not obtainable, submit proof of non-availability to Engineer, together with proposal for use of equivalent material.

Shop drawings detailing fabrication & erection of each metal fabrication indicated. Include plans, elevations, sections & details of metal fabrications & connections. Show anchorage & accessory items. Provide templates for anchors & bolts specified for installation under other sections.

Samples representative of materials & finished products as may be requested by Engineer.

Welder certificates signed by Contractor certifying that welders comply with requirements specified under *Quality Assurance* article.

Qualification data for firms & persons specified in *Quality Assurance* article to demonstrate their capabilities & experience. Include list of completed projects with project name, addresses, names of Engineers & Owners & other information specified.

QUALITY ASSURANCE

Fabricator Qualifications: Firm experienced in successfully producing metal fabrications similar to that indicated for this Project, with sufficient production capacity to produce required units without causing delay in Work.

Installer Qualifications: Arrange for installation of metal fabrications specified in this section by same firm that fabricated them.

Manufacturer's Qualifications: Firms regularly engaged in manufacture of box beam guide rail & related products, of types & sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.

Installer's Qualifications: Firm with at least 3 years of successful installation experience on projects with work similar to that required herein.

Qualify welding processes & welding operators in accordance with AWS D1.1 *Structural Welding Code - Steel*, D1.3 *Structural Welding Code - Sheet Steel* & D1.2 *Structural Welding Code - Aluminum*.

Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved &, if pertinent, has undergone recertification.

PROJECT CONDITIONS

Field Measurements: Check actual locations of walls & other construction to which metal fabrications must fit, by accurate field measurements before fabrication; show recorded measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of Work.

Where field measurements cannot be made without delaying Work, guarantee dimensions & proceed with fabrication of products without field measurements. Coordinate construction to ensure that actual opening dimensions correspond to guaranteed dimensions. Allow for trimming & fitting.

PART 2 - PRODUCTS

FERROUS METALS

Metal Surfaces, General: For metal fabrications exposed to view upon completion of Work, provide materials selected for smoothness, surface flatness & freedom from surface blemishes. Do not use materials with exposed surfaces exhibit pitting, seam marks, roller marks, rolled trade names, roughness &, for steel sheet, variations in flatness exceeding those permitted by reference standards for stretcher-leveled sheet.

Steel Plates, Shapes & Bars: ASTM A36.

Rolled Steel Floor Plates: ASTM A786.

Steel Bars for Gratings: ASTM A569 or ASTM A36.

Wire Rod for Grating Cross Bars: ASTM A510.

Steel Tubing: Product type (mfg. method) & as follows:

Cold-Formed Steel Tubing: ASTM A500, grade as indicated below:

Grade A, unless otherwise indicated or required for design loading.

Grade B, unless otherwise indicated or required for design loading.

Hot-Formed Steel Tubing: ASTM A501.

For exterior installations & where indicated, provide tubing with hot-dip galvanized coating per ASTM A53.

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Uncoated Structural Steel Sheet: Product type (manufacturing method), quality & grade, as follows:

Cold-Rolled Structural Steel Sheet: ASTM A611, grade as follows:

Grade A, unless otherwise indicated or required by design loading.

Hot-Rolled Structural Steel Sheet: ASTM A570, grade as follows:

Grade 30, unless otherwise indicated/required by design loading.

Uncoated Steel Sheet: Commercial quality, product type (method of manufacture) as follows:

Cold-Rolled Steel Sheet: ASTM A366.

Hot-Rolled Steel Sheet: ASTM A569

Galvanized Steel Sheet: Quality as follows:

Structural Quality: ASTM A446; Grade A, unless another grade required for design loading & G90 coating designation unless otherwise indicated.

Commercial Quality: ASTM A526, G90 coating designation unless otherwise indicated.

Steel Pipe: ASTM A53; finish, type & weight class as follows:

Black finish, unless otherwise indicated.

Galvanized finish for exterior installations & where indicated.

Type F, standard weight (schedule 40), unless otherwise indicated, or another weight, type & grade required by structural loads.

Type S, Grade A, standard weight (schedule 40), unless otherwise indicated, or another grade or weight or both required by structural loads.

Type S, Grade B, standard weight (schedule 40), unless otherwise indicated, or another weight required by structural loads.

Gray Iron Castings: ASTM A48, Class 30.

Malleable Iron Castings: ASTM A47, grade 32510.

Brackets, Flanges & Anchors: Cast or formed metal of same type material & finish as supported rails, unless otherwise indicated.

Concrete Anchor Bolts: Threaded or wedge type; stainless steel, Grade 304. Provide bolts, washers & shims as required.

Welding Rods & Bare Electrodes: Select in accordance with AWS specifications for metal alloy to be welded.

STAINLESS STEEL

Bar Stock: ASTM A276, Type 302 or 304.

Plate: ASTM A167, Type 302 or 304.

ALUMINUM

General: All handrail systems, gratings, grating support members, and fabrications installed shall be fabricated from aluminum, unless otherwise noted.

Extruded Bars & Shapes: ASTM B 221, alloys as follows:

6061-T6 for bearing bars of gratings, shapes, & plates.

6061-T1 for grating cross bars.

PIPE RAILINGS & HANDRAILS

General: Fabricate pipe railings & handrails to comply with requirements indicated for design, dimensions, details, finish & member sizes, including wall thickness of pipe, post spacings & anchorage, but not less than that required to support structural loads.

Interconnect railing & handrail members by butt-welding or welding with internal connectors, at fabricator's option, unless otherwise indicated.

At tee & cross intersections, notch ends of intersecting members to fit contour of pipe to which end is joined & weld all around.

Form changes in direction of railing members as follows: By insertion of prefabricated elbow fittings, by radius bends of radius indicated, by mitering at elbow bends, by bending or by any method indicated above, applicable to change of direction involved.

Form simple & compound curves by bending pipe in jigs to produce uniform curvature for each repetitive configuration required; maintain cylindrical cross-section of pipe throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of pipe.

Toe Boards: Provide ¼" thick by 4" high aluminum plate.

Brackets, Flanges, Fittings & Anchors: Provide brackets, end closures, flanges, miscellaneous fittings & anchors for interconnections of pipe & attachment of railings & handrails to other work. Furnish inserts & other anchorage devices for connecting railings & handrails to concrete or masonry work.

For removable railing posts, fabricate slip-fit sockets from steel pipe whose inside diameter is sized for close fit with posts & to limit deflection of post without lateral load, measured at top, to not more than 1/12 of post height. Provide socket covers designed & fabricated to resist accidental dislodgment.

GROUT & ANCHORING CEMENT

Nonshrink Metallic Grout: Premixed, factory-packaged, ferrous aggregate grout complying with CE CRD-C 621, specifically recommended by manufacturer for heavy duty loading applications of type specified in this section.

Nonshrink Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with CE CRD-C 621. Provide grout specifically recommended by manufacturer for interior & exterior applications of type specified in this section.

Interior Anchoring Cement: Factory-prepackaged, nonshrink, nonstaining, hydraulic controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching & grouting compound. Use for interior applications only.

Erosion-Resistant Anchoring Cement: Factory-prepackaged, nonshrink, nonstaining, hydraulic controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching & grouting compound. Provide formulation that is resistant to erosion from water exposure

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without need for protection by sealer or waterproof coating & is recommended for exterior use by manufacturer.

Available Products: Subject to requirement compliance, products that may be incorporated in Work include but are not limited to the following:

Nonshrink Metallic Grouts:

- *Metox RM*; Chem-Masters Corp.
- *Hi Mod Grout*; Euclid Chemical Co.
- *Embeco 885 & 636*; Master Builders.
- *Ferrolith G Redi-Mix & G-NC*; Sonneborn Building Products Div., Rexnord Chemical Products, Inc.
- *Stoncrete MG1*; Stonhard, Inc.

Nonshrink Nonmetallic Grouts:

- *Bonsal Construction Grout*; W. R. Bonsal Co.
- *Diamond-Crete Grout*; Concrete Service Materials Co.
- *Euco N-S Grout*; Euclid Chemical Co.
- *Kemset*; Chem-Masters Corp.
- *Crystex*; L & M Construction Chemicals, Inc.
- *Masterflow 713*; Master Builders.
- *Sealtight 588 Grout*; W. R. Meadows, Inc.
- *SonogROUT*; Sonneborn Building Products Div., Rexnord Chemical Products, Inc.
- *Stoncrete NM1*; Stonhard, Inc.
- *Five Star Grout*; U. S. Grout Corp.
- *Vibropruf #11*; Lambert Corp.

Interior Anchoring Cement:

- *Bonsal Anchor Cement*; W. R. Bonsal Co. or approved equal
- *Por-Rok*; Minwax Construction Products Division.

FASTENERS

General: Provide zinc-coated fasteners for exterior use or where built into exterior walls. Select fasteners for type, grade & class required. Use stainless steel fasteners, Grade 304 within all wastewater process buildings, tanks and vessels.

Bolts & Nuts: Regular hexagon head type ASTM A307 Grade A.

Lag Bolts: Square head type, FS FF-B-561.

Machine Screws: Cadmium plated steel, FS FF-S-92.

Wood Screws: Flat head carbon steel, FS FF-S-111.

Plain Washers: Round, carbon steel, FS FF-W-92.

Drilled-In Expansion Anchors: Expansion anchors complying with FS FF-S-325, Group VIII (anchors, expansion, [nondrilling]), Type I (internally threaded tubular expansion anchor); & machine bolts complying with FS FF- B-575, Grade 5. Use galvanized bolts in exterior applications. Use stainless steel bolts in all wastewater treatment buildings, tanks, and vessels.

Toggle Bolts: Tumble-wing type, FS FF-B-588, type, class & style as required.

Lock Washers: Helical spring type carbon steel, FS FF-W-84.

PAINT

Shop Primer for Ferrous Metal: Manufacturer's or fabricator's standard, fast-curing, lead-free, primer selected for good resistance to normal atmospheric corrosion, for compatibility with finish paint systems indicated & for capability to provide sound foundation for field-applied topcoats despite prolonged

exposure complying with performance requirements of FS TT-P-645

Galvanizing Repair Paint: High zinc dust content paint for reglazing welds in galvanized steel, with dry film containing not less than 94% zinc dust by weight & complying with DOD-P-21035 or SSPC-Paint- 20.

CONCRETE FILL & REINFORCING MATERIALS

Concrete Materials & Properties: Comply with requirements of Div. 3 section *Concrete Work* for normal weight, ready-mix concrete.

Nonslip Aggregate Finish: Factory-graded, packaged material containing fused aluminum oxide grits or crushed emery as abrasive aggregate; rust- proof & nonglazing; unaffected by freezing, moisture, or cleaning materials.

Reinforcing Bars: ASTM A615, Grade 60, unless otherwise indicated.

FABRICATION, GENERAL

Form metal fabrications from materials of size, thickness & shapes indicated but not less than that needed to comply with performance requirements indicated. Work to dimensions indicated or accepted on shop drawings, using proven details of fabrication & support. Use type of materials indicated or specified for various components of each metal fabrication.

Form exposed work true to line & level with accurate angles & surfaces & straight sharp edges.

Allow for thermal movement resulting from the following maximum change (range) in ambient temperature in design, fabrication & installation of installed metal assemblies to prevent buckling, opening up of joints & over stressing of welds & fasteners. Base design calculations on actual surface temperatures of metals due to both solar heat gain & nighttime sky heat loss.

Temperature Change (Range): 100°F (55.5°C).

Shear & punch metals cleanly & accurately. Remove burrs.

Ease exposed edges to radius of approximately $\frac{1}{32}$ ", unless otherwise indicated. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

Remove sharp or rough areas on exposed traffic surfaces.

Weld corners & seams continuously to comply with AWS recommendations & the following:

Use materials & methods that minimize distortion & develop strength & corrosion resistance of base metals.

Obtain fusion without undercut or overlap.

Remove welding flux immediately.

At exposed connections, finish exposed welds & surfaces smooth & blended so that no roughness shows after finishing & contour of welded surface matches those adjacent.

Form exposed connections with hairline joints, flush & smooth, using concealed fasteners wherever possible. Use exposed fasteners of type indicated or, if not indicated, Phillips flat head (countersunk) screws or bolts. Locate joints where least conspicuous.

Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate & space anchoring devices to provide adequate support for intended use.

Shop Assembly: Preassemble items in shop to greatest extent possible to minimize field splicing & assembly. Disassemble units only as necessary for shipping & handling limitations. Use

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connections that maintain structural value of joined pieces. Clearly mark units for reassembly & coordinated installation.

Cut, reinforce, drill & tap miscellaneous metal work as indicated to receive finish hardware, screws & similar items. Fabricate joints that will be exposed to weather in manner to exclude water, or provide weep holes where water may accumulate.

ROUGH HARDWARE

Furnish bent or otherwise custom fabricated bolts, plates, anchors, hangers, dowels & other miscellaneous steel & iron shapes as required for framing & supporting woodwork & for anchoring or securing woodwork to concrete or other structures. Straight bolts & other stock rough hardware items are specified in Div. 6 sections.

Fabricate items to sizes, shapes & dimensions required. Furnish malleable-iron washers for heads & nuts, which bear on wood structural connections; elsewhere, furnish steel washers.

SHELF & RELIEVING ANGLES

Fabricate shelf & relieving angles from steel angles of sizes indicated & for attachment to concrete framing. Provide slotted holes to receive $\frac{3}{4}$ " bolts, spaced not more than 6" from ends & not more than 24" o.c., unless otherwise indicated.

Galvanize shelf angles to be installed on exterior concrete framing.

Furnish wedge-type concrete inserts, complete with fasteners, for attachment of shelf angles to cast-in-place concrete.

FINISHES, GENERAL

Comply with NAAMM *Metal Finishes Manual* for recommendations relative to application & designations of finishes.

Finish metal fabrications after assembly.

STEEL & IRON FINISHES

Galvanizing: For those items indicated for galvanizing, apply zinc-coating by hot-dip process in compliance with the following requirements:

ASTM A153 for galvanizing iron & steel hardware.

ASTM A123 for galvanizing both fabricated & unfabricated iron & steel products made of uncoated rolled, pressed & forged shapes, plates, bars & strip 0.0299" thick & heavier.

Preparation for Shop Priming: Prepare uncoated ferrous metal surfaces to comply with minimum requirements indicated below for SSPC surface preparation specifications & environmental exposure conditions of installed metal fabrications:

Exteriors (SSPC Zone 1B): SSPC-SP6 *Commercial Blast Cleaning*.

Interiors (SSPC Zone 1A): SSPC-SP3 *Power Tool Cleaning*:

Apply shop primer to uncoated surfaces of metal fabrications, except those with galvanized finish or to be embedded in concrete, sprayed-on fireproofing, or masonry, unless otherwise indicated. Comply with requirements of SSPC-PA1 *Paint Application Spec. #1* for shop painting.

Stripe paint all edges, corners, crevices, bolts, welds & sharp edges.

All ferrous metal fabrications not embedded in concrete or galvanized shall receive 2 coats of enamel specified, field or shop applied. 1.5 to 3.5 mils dry film thickness per coat. Follow coating manufacturer's printed instructions & §09900, Painting. Standard manufacturer's color to be selected by Owner.

PART 3 - EXECUTION

PREPARATION

Coordinate & furnish anchorages, setting drawings, diagrams, templates, instructions & directions for installation of anchorages, including concrete inserts, sleeves, anchor bolts & miscellaneous items having integral anchors that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to project site.

Set sleeves in concrete with tops flush with finish surface elevations; protect sleeves from water & concrete entry.

INSTALLATION, GENERAL

Fastening to In-Place Construction: Provide anchorage devices & fasteners where necessary for securing miscellaneous metal fabrications to in-place construction; include threaded fasteners for concrete & masonry inserts, toggle bolts, through-bolts, lag bolts, wood screws & other connectors as required.

Cutting, Fitting & Placement: Perform cutting, drilling & fitting required for installation of misc. metal fabrications. Set metal fabrication accurately in location, alignment & elevation; with edges & surfaces level, plumb, true & free of rack; & measured from established lines & levels.

Provide temporary bracing or anchors in formwork for items that are to be built into concrete masonry or similar construction.

Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units which have been hot-dip galvanized after fabrication & are intended for bolted or screwed field connections.

Field Welding: Comply with AWS Code for procedures of manual shielded metal-arc welding, appearance & quality of welds made, methods used in correcting welding work & the following:

Use materials & methods that minimize distortion & develop strength & corrosion resistance of base metals.

Obtain fusion without undercut or overlap.

Remove welding flux immediately.

At exposed connections, finish exposed welds & surfaces smooth & blended so that no roughness shows after finishing & contour of welded surface matches those adjacent.

Corrosion Protection: Coat concealed surfaces of aluminum that will come into contact with grout, concrete, masonry, wood, or dissimilar metals with heavy coat of bituminous paint or zinc chromate primer.

SETTING LOOSE PLATES

Clean concrete & masonry bearing surfaces of any bond-reducing materials & roughen to improve bond to surfaces. Clean bottom surface of bearing plates.

Set loose leveling & bearing plates on wedges, or other adjustable devices. After bearing members have been positioned & plumbed, tighten anchor bolts. Do not remove wedges or shims, but if protruding, cut off flush with edge of bearing plate before packing with grout.

Use metallic nonshrink grout in concealed locations where not exposed to moisture; use nonmetallic nonshrink grout in exposed locations, unless otherwise indicated.

Pack grout solidly between bearing surfaces & plates to ensure that no voids remain.

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INSTALLATION OF PIPE RAILINGS & HANDRAILS

Adjust railings prior to anchoring to ensure matching alignment at abutting joints. Space posts at spacing indicated, or if not indicated, as required by design loadings. Plumb posts in each direction. Secure posts & railing ends to building construction as follows:

Install removable railing sections where indicated in slip-fit metal sockets secured to concrete with masonry anchors & accurately locate to match post spacing.

ADJUSTING & CLEANING

Touch-Up Painting: Immediately after erection, clean field welds, bolted connections & abraded areas of shop paint & paint exposed areas with same material as used for shop painting to comply with SSPC-PA 1 requirements for touch-up of field painted surfaces.

Apply by brush or spray to provide min. dry film thickness of 2.0 mils.

Touch-Up Painting: Cleaning & touch-up painting of field welds, bolted connections & abraded areas of shop paint on miscellaneous metal is specified in Div. 9 Section *Painting* of these specifications.

For galvanized surfaces clean welds, bolted connections & abraded areas & apply galvanizing repair paint to comply with ASTM A780.

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SECTION 09900
PAINING

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & gen. provisions of Contract, including General & Supplementary Conditions & Div. 1 Spec. sections, apply to work of this section.

DESCRIPTION OF WORK

Extent of painting work is indicated on drawings & schedules, & as herein specified.

Work includes painting & finishing of all interior & exterior exposed items & surfaces throughout project, except as otherwise indicated.

Surface preparation, priming & coats of paint specified are in addition to shop-priming & surface treatment specified under other sections of work.

Work includes field painting of exposed bare & covered pipes & ducts (including color coding), & of hangers, exposed steel & iron work, primed metal surfaces of equipment, installed under mechanical & electrical work, except as otherwise indicated.

"Paint" as used herein means all coating systems materials including primers, emulsions, enamels, stains, sealers & fillers & other applied materials whether used as prime, intermediate or finish coats.

Surfaces to be Painted: Except where natural finish of material is specifically noted as a surface not to be painted, paint surfaces whether or not colors are specifically designated in "schedules". Where items or surfaces are not specifically mentioned, paint same as similar adjacent materials or areas. If color or finish is not designated, Engineer will select these from standard colors or finishes available.

Following categories of work are not included as part of field-applied finish work.

Pre-Finished Items: Unless otherwise indicated, do not include painting when factory-finishing or installer finishing is specified for items.

Finished Metal Surfaces: Unless other wise indicated, metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze & similar finished materials will not require finish painting.

Shop Priming: Unless otherwise specified , shop priming of ferrous metal items is included under various sections for structural steel, metal fabrications, hollow metal work, & similar items.

Do not paint over any code-required labels, such as Underwriters' Laboratories & Factory Mutual, or any equipment identification, performance rating, name, or nomenclature plates.

QUALITY ASSURANCE

Single Source Responsibility: Provide primers & other undercoat paint produced by same manufacturer as finish coats. Use only thinners approved by paint manufacturer, & use only within recommended limits.

Coordination of Work: Review other sections of these specifications in which prime paints are to be provided to ensure compatibility of total coatings system for various substrates.

Upon request from other trades, furnish information or characteristics of approved finish materials to ensure compatible prime coats are used.

SUBMITTALS

Product Data: Submit manufacturer's technical information including paint label analysis & application instructions for each material proposed for use.

Color Samples: Prior to beginning work, furnish Engineer with color chips for surfaces to be painted.

DELIVERY & STORAGE

Deliver materials to job site in original, new & unopened packages & containers bearing manufacturer's name & label, & following information:

Name or title of material.

Manufacturer's stock number & date of manufacturer.

Manufacturer's name.

Contents by volume, for major pigment & vehicle constituents.

Thinning instructions.

Application instructions.

Color name & number.

Store materials not in actual use in tightly covered containers. Maintain containers used in storage of paint in a clean condition, free of foreign materials & residue.

Protect from freezing where necessary. Keep storage area neat & orderly. Remove oily rags & waste daily. Take all precautions to ensure that workmen & work areas are adequately protected from fire hazards & health hazards resulting from handling, mixing & application of paints.

JOB CONDITIONS

Apply water-base paints only when temperature of surfaces to be painted & surrounding air temperatures are between 50°F (10°C) & 90°F (32°C), unless otherwise permitted by paint manufacturer's printed instructions.

Apply solvent-thinned paints only when temperature of surface to be painted & surrounding air temperatures are between 45°F (7°C) & 95°F (35°C), unless otherwise permitted by paint manufacturer's printed instructions.

Do not apply paint in snow, rain, fog or mist; or when relative humidity exceeds 85%; or to damp or to damp or wet surfaces; unless otherwise permitted by paint manufacturer's printed instructions.

Painting may be continued during inclement weather if areas & surfaces to be painted are enclosed & heated within temperature limits specified by paint manufacturer during application & drying periods.

PART 2 - PRODUCTS

ACCEPTABLE MANUFACTURERS

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in work include, but are not limited to, the following:

The TNEMEC Company

The Valspar Corporation

Sherwin-Williams

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MATERIALS

Material Quality: Provide best quality grade of various types of coatings as regularly manufactured by acceptable paint materials manufacturers. Materials not displaying manufacturer's identification as a standard, best product will not be acceptable.

Proprietary names used to designate colors or materials are not intended to imply that products of named manufacturers are required to exclusion of equivalent products of other manufacturers. Products listed herein are as manufactured by The TNE MEC Company to establish type of paint & finish required.

Color Pigments: Pure, non-fading, applicable types to suit substrates & service indicated.

Lead in pigment, is not allowed.

PART 3 - EXECUTION

INSPECTION

Applicator must examine areas & conditions under which painting work is to be applied & notify Contractor in writing of conditions detrimental to proper & timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Applicator.

Starting of painting work will be construed as Applicator's acceptance of surfaces & conditions within any particular area/

Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to formation of a durable paint film.

SURFACE PREPARATION

General: Perform preparation & cleaning procedures in accordance with paint manufacturer's instructions & as herein specified, for each particular substrate condition. Media blast metal components to SSPC-SP10 standards.

Remove hardware, hardware accessories, machined surfaces, plates, lighting fixtures, & similar items in place & not to be finish-painted, or provide surface-applied protection prior to surface preparation & painting operations. Remove, if necessary, for complete painting of items & adjacent surfaces. Following completion of painting of each space or area, reinstall removed items.

Clean surfaces to be painted before applying paint or surface treatments. Remove oil & grease prior to mechanical cleaning. Program cleaning & painting so that contaminants from cleaning process will not fall onto wet, newly-painted surfaces.

Cementitious Materials: Prepare cementitious surfaces of concrete, concrete block, cement plaster & cement-asbestos board to be painted by removing efflorescence, chalk, dust, dirt, grease, oils, & by roughening as required to remove glaze.

Determine alkalinity & moisture content of surfaces to be painted by performing appropriate tests. If surfaces are found to be sufficiently alkaline to cause blistering & burning of finish paint, correct this condition before application of paint. Do not paint over surfaces where moisture content exceeds that permitted in manufacturer's printed directions.

Clean concrete floor surfaces scheduled to be painted with a commercial solution of muriatic acid, or other etching cleaner. Flush floor with clean water to neutralize acid, & allow to dry before painting.

Wood: Clean wood surfaces to be painted of dirt, oil, or other foreign sub-stances with scrapers, mineral spirits, & sandpaper, as required. Sandpaper smooth those finished surfaces exposed to view, & dust off. Scrape & clean small, dry, seasoned knots & apply a thin coat of white shellac or other recommended knot sealer, before application of priming coat. After priming, fill holes & imperfections in finish surfaces with putty or plastic wood-filler. Sandpaper smooth when dry.

Ferrous Metals: Clean ferrous surfaces, which are not galvanized or shop-coated, of oil, grease, dirt, loose mill scale & other foreign substances by solvent or mechanical cleaning.

Touch-up shop-applied prime coats wherever damaged or bare, where required by other sections of these specifications. Clean & touch-up with same type shop primer.

Galvanized Surfaces: Clean free of oil & surface contaminants with non-petroleum based solvent.

MATERIALS PREPARATION

Mix & prepare painting materials in accordance with manufacturer's directions.

Maintain containers used in mixing & application of paint in a clean condition, free of foreign materials & residue.

Stir materials before application to produce a mixture of uniform density, & stir as required during application. Do not stir surface film into material. Remove film &, if necessary, strain material before using.

APPLICATION

General: Apply paint in accordance with manufacturer's directions. Use applicators & techniques best suited for substrate & type of material being applied.

Provide finish coats which are compatible with prime paints used.

Paint surfaces behind movable equipment & furniture same as similar exposed surfaces. Paint surfaces behind permanently fixed equipment or furniture with prime coat only before final installation of equipment.

Finish exterior doors on top, bottoms & side edges same as exterior faces, unless otherwise indicated.

Sand lightly between each succeeding enamel or varnish coat.

Omit first coat (primer) on metal surfaces which have been shop-primed & touch-up painted, unless otherwise indicated.

Scheduling Painting: Apply first-coat material to surfaces that have been cleaned, pretreated or otherwise prepared for painting as soon as practicable after preparation & before subsequent surface deterioration.

Allow sufficient time between successive coatings to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, & application of another coat of paint does not cause lifting or loss of adhesion of undercoat.

Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate, to establish a total dry film thickness as indicated or, if not indicated, as recommended by coating manufacturer.

Prime Coats: Apply prime coat of material which is required to be painted or finished, & which has not been prime coated by others. Recoat primed & sealed surfaces where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing.

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Stipple Enamel Finish: Roll & redistribute paint to an even & fine texture. Leave no evidence of rolling such as laps, irregularity in texture, skid marks, or other surface imperfections.

Pigmented (Opaque) Finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance & coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness or other surface imperfections will not be acceptable.

Completed Work: Match approved samples for color, texture & coverage. Remove, refinish or repaint work not in compliance with specified requirements.

CLEAN-UP & PROTECTION

Clean-up: During progress of work, remove from site discarded paint materials, rubbish, cans & rags at end of each work day.

Upon completion of painting work, clean window glass & other paint-spattered surfaces. Remove spattered paint by proper methods of washing & scraping, using care not to scratch otherwise damage finished surfaces.

Protection: Protect work of other trades, whether to be painted or not, against damage by painting & finishing work. Correct any damage by cleaning, repairing or replacing & repainting, as acceptable to Engineer.

Provide "Wet Paint" signs as required to protect newly-painted finishes. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations.

At completion of work of other trades, touch-up & restore all damaged or defaced surfaces.

PAINTING SCHEDULE

Surfaces to be painted include the following:

- Exterior metal, including all clarifier components.
- Aluminum surfaces in contact with concrete.
- Exposed metallic piping including pipes, fittings, couplings, supports, bolts, nuts and specialties.

Surfaces not to be painted, unless noted otherwise, include the following:

- Pre-finished equipment.
- Galvanized surfaces.
- Exposed aluminum surfaces.

General: Provide the following paint systems for various substrates, as indicated.

<u>Substrate</u>	<u>Primer</u>	<u>Intermediate</u>	<u>Finish</u>
Steel & Iron			
Non-Submerged	66-1211	Series 66	Series 73
Submerged	Series N69	Series 104	Series N69
Machinery & Equipment	66-1211	Series 66	Series 73
Aluminum Surfaces in Contact with Concrete:	Bitumastic paint.		

Coats, Product numbers, & Generic Names (The TNEMEC Company) :

Primers:	Series N69	Hi-build Epoxoline II
Intermediate:	Series 104	H.S. Epoxy
Finishes:	Series N69	Hi-build Epoxoline II

PIPING COLOR SCHEDULE

Sludge Suction Lines:	Brown bands	w/orange
Non-potable Water:	Blue w/black bands	
Potable Water:	Blue	
Wastewater:	Gray	
Compressed Air Line:	Green	
Sludge Discharge Line:	Brown	

Bands shall be 6" wide and spaced 30" on center along pipe. Piping shall be labeled as to contents and normal direction of flow. Labels shall be provided every 20' along pipe.

Pipe label's shall be SETMARK as manufactured by Seton Nameplate Corp., or equal.

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**SECTION 11225
CLARIFIER EQUIPMENT**

**PART 1 - GENERAL
RELATED DOCUMENTS**

Drawings & general provisions of Contract, including Gen & Supplementary Conditions & Div. 1 Specification sections, apply to this section.

DESCRIPTION OF WORK

Provide all labor, materials, equipment and appurtenances required to furnish and install, complete and ready for operation, clarifier mechanisms specified herein, each suitable for installation in a concrete basin at the waste water treatment plant as shown on the contract drawings. Contractor will reuse the majority of internal metal components, however, they will be media blasted and repainted, as specified. The contractor will also rehabilitate or replace all secondary clarifier weirs as specified.

QUALITY ASSURANCE

Manufacturer's Qualifications: Manufactures regularly engaged in the manufacture of the clarifier equipment as specified herein and who can demonstrate equipment of the specified design, in actual service for a period of not less than 5 years will be considered as acceptable manufactures.

Installer's Qualifications: Firms with at least 3 years of successful installation experience on projects with work similar to the type specified herein.

Equipment Performance: The installed clarifiers shall demonstrate performance in accordance with the specification requirements and the operating conditions as shown.

SUBMITTALS

Product Data: Submit equipment manufacturer's technical product data, catalog cuts, specifications and installation instructions for all equipment.

Shop Drawings: Submit shop drawings showing general arrangement and installation instructions for all equipment in the work including attachment and connection details and range of motion space requirements.

PART 2 - PRODUCTS

MANUFACTURERS

Subject to compliance with requirements, manufacturers offering products which may be incorporated in work include, but are not limited to the following or equal:

Peabody-Wells (original equipment manufacturer)

Surface Scum Skimming Equipment

- A. The skimmer arm assembly which collects and discharge surface scum into the scum trough cantilevered from the tank wall shall be replaced on all clarifiers.
- B. Each skimmer arm shall be either a structural steel truss assembly or a fabricated tube assembly connected to the rotating sludge scraper arm. Tie rods shall be properly located to allow adjustment of the skimmer arm as well as to resist horizontal forces.
- C. Each skimmer arm shall be equipped with a hinged ½-inch 60 durometer neoprene wiper blade extending the full width of the arm. The neoprene blade shall be fastened to the arm with stainless steel fasteners with steel back-up bars. Skimmer arm assembly shall be able to be raised up out of the water for winter operation to prevent damage from ice.

Effluent Weirs – secondary clarifiers

- A. New effluent weir plates on the inboard and outboard launders of the secondary clarifiers shall consist of 12 inch deep x 1/4 inch thick FRP sections with 3 inch deep 90 degree V-notches at 6 inch intervals. The weir sections shall be fastened to the effluent launder wall using 304 stainless steel anchor bolts hex nuts and 5 inch diameter FRP washers, allowing for vertical adjustment, at intervals shown on plans, or required by manufacturer. Install solid FRP transition pieces at each bend in the launders to prevent leakage. To prevent leakage all surfaces between the launder walls and weir plates shall be given a seal coat of suitable mastic or caulk by the contractor.

Rake Arms

- A. Rake blade squeegees shall be replaced with adjustable 20-gauge, 304 stainless steel with neoprene squeegees.

Surface Preparation and Painting

- A. All non-submerged steel shall be sandblasted to SSPC-SP-6 specifications and given one coat of epoxy primer 2-3 MDFT. All submerged steel shall be sandblasted to SSPC-SP-10 specifications and given one coat of manufacturer's epoxy primer 2-3 MDFT.
- B. See Section 00900 for additional preparation and painting requirements.

Spare Parts –

1. One (1) set of neoprene skimmer wipers for each mechanism.

PART 3 - EXECUTION

Installation

The equipment shall be erected in strict accordance with the manufacturer's recommendations.

Startup

The equipment manufacturer shall provide a service representative properly trained in inspection and operation of the mechanism to approve the installation and instruct the owner's personnel on maintenance and operation. If additional service is required due to the mechanisms not being fully operational, at the time of service requested by the contractor, the additional service days will be at the contractor's expense.

WARRANTY

The manufacturer of the equipment shall warrant for one year from date of start-up, that the structure and all equipment provided will be free from defects in material and workmanship. Warranties and guarantees of the suppliers of various components in lieu of a single source responsibility by the Manufacturer will not be accepted. The Manufacturer shall assume primary responsibility for the warranty of the equipment and all components.

In the event any component fails to perform as specified or is proven defective in service during the warranty period, the Manufacturer shall repair or replace, at his discretion, such component or defective part. He shall further provide, without cost, such labor as may be required to replace, repair or modify any such component or defective parts.

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SECTION 15100
VALVES

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings & general provisions of Contract, including Gen. & Supplementary Conditions & Div. 1 Specification sections, apply to this section.

SUMMARY

This Section includes gate valves, valve actuators and accessories

SUBMITTALS

General: Submit the following in accordance with Conditions of Contract & Div. 1 Specification Sections.

Product data, including body material, valve design, pressure & temperature classification, end connection details, seating materials, trim material & arrangement, valve appurtenances, dimensions & required clearances & installation instructions.

QUALITY ASSURANCE

American Soc. of Mechanical Engineers Compliance: Comply with ASME B31.9 for building services piping & ASME B31.1 for power piping.

Manufacturers Standardization Soc. of Valve & Fittings Industry (MSS) Compliance: Comply with various MSS Standard Practices referenced.

DELIVERY, STORAGE & HANDLING

Preparation For Transport: Prepare valves for shipping as follows:

Ensure valves are dry & internally protected against rust/corrosion.

Protect valve ends against damage to threads, flange faces & weld-end preps.

Set valves in best position for handling. Set globe & gate valves closed to prevent rattling; set ball & plug valves open to minimize exposure of functional surfaces; set butterfly valves closed or slightly open; & block swing check valves in either closed or open position.

Storage: Use following precautions during storage:

Do not remove valve end protectors unless necessary for inspection; then reinstall for storage.

Protect valves from weather. Store valves indoors. Maintain valve temperature higher than ambient dew point temperature. If outdoor storage is necessary, support valves off ground or pavement in watertight enclosures.

Handling: Use a sling to handle valves whose size requires handling by crane or lift. Rig valves to avoid damage to exposed valve parts. Do not use hand wheels & stems as lifting or rigging points.

PART 2 - PRODUCTS

MANUFACTURERS

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in work include, but are not limited to, those listed in each individual valve specification.

Manufacturer: Subject to compliance with requirements, provide products from one of manufacturers listed in the valve specifications that follow.

VALVE FEATURES, GENERAL

Valve Design: Non-rising stems.

All valves shall open left (counter-clockwise) unless otherwise specified.

Pressure & Temperature Ratings: As scheduled & required to suit system pressures & temperatures.

Sizes: Same size as upstream pipe, unless otherwise indicated.

Operators: Provide the following special operator features:

Hand wheels, fastened to valve stem, for valves other than 1/4 turn.

Gear drive operators, on quarter-turn valves 8" & larger.

Valve Boxes: Buried valves shall be furnished with cast-iron telescoping valve boxes that extend to finish grade elevation. Boxes shall be sized to accommodate operating nut & suitable sized T-handle operating wrench. Valve box base shall be suitable for valve type. Valve box cover shall be marked "WATER" or "SEWER" or other appropriate designation required by Owner. Valve boxes shall be Clow, Sigma, or approved equal.

End Connections: As indicated in valve specifications.

Flanges: Comply with ANSI B16.1 for cast iron, ANSI B16.5 for steel & ANSI B16.24 for bronze valves.

Solder-Joint: Comply with ANSI B16.18.

Caution: Where soldered end connections are used, use solder having a melting point below 840°F for gate, globe & check valves; below 421°F for ball valves.

Extension Stems: Where installation is indicated or specified provide extension stems with stem guides and end configurations to suit installation. Extension stems shall be constructed of extra heavy steel pipe. Extension stems shall be hot dip galvanized or epoxy painted to prevent corrosion. Stems shall be sized to transmit full open or closing torque without twisting or bending. Stem guides shall be ASTM A-126 Class B cast iron with bronze stem bushings. Stem guides shall be placed at increments of 10 ft. along extension stems. Extension stems and stem guides shall be as manufactured by M & H Valve Co., Clow, or equal. Extension stems with centering grommets shall be provided to 48" below finish grade on all valves located eight feet or more below finish grade.

Floor Stands: Where installation is indicated or specified floor stands shall be provided. Floor stands shall be ASTM A-126 cast iron. Floor stands shall be indicating type and as manufactured by M & H Valve Co., Clow, or equal.

Floor Boxes: Where installation is indicated or specified provide floor boxes for termination at extension stems. Floor boxes shall be ASTM A-126 Class B cast iron with bronze bushing and cover marked "Water" or "Sewer", as applicable, as manufactured by M & H Valve Co., Clow, or approved equal.

Actuators: shall be in complete conformance with AWWA C504 and AWWA C540. Housings will be of cast iron, in both weather proof and suitable to be buried constructions with 2" square nut inputs. All valves shall have adjustable open and closed position stops.

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RESILIENT SEATED WEDGE VALVES

Resilient Seated Wedge Valves: Iron body, resilient wedge gate, nonrising stem, bronze-mounted, 200 psi-rated for water service meeting AWWA C500-86, open left.

Buried valves to be furnished with operating nut & telescoping valve box & cover.

Valves shall be as manufactured by U.S. Pipe Metroseal, Clow Corp., Watrous, Kennedy, DeZurick or approved equal.

PART 3 - EXECUTION

EXAMINATION

Examine valve interior through end ports for cleanliness, freedom from foreign matter & corrosion. Remove special packing materials, such as blocks used to prevent disc movement during shipping & handling.

Actuate valve through an open-close & close-open cycle. Examine functionally significant features, such as guides & seats made accessible by such actuation. Following examination, return valve closure member to shipping position.

Examine threads on both valve & mating pipe for form (i.e., out-of-round or local indentation) & cleanliness.

Examine mating flange faces for conditions that might cause leakage. Check bolting for proper size, length & material. Check gasket material for proper size, material composition suitable for service & freedom from defects & damage.

Prior to valve installation, examine piping for cleanliness, freedom from foreign materials & proper alignment.

Replace defective valves with new valves.

VALVE ENDS SELECTION

Select valves with the following ends or types of pipe/tube connections:

Steel Pipe Sizes, 2" & Smaller: threaded or grooved end.

Steel Pipe Sizes 2-1/2" & Larger: grooved end, flanged, or mechanical joint.

VALVE INSTALLATIONS

Locate valves for easy access & provide separate support where necessary.

Install valves & unions for each fixture & item of equipment arranged to allow equipment removal without system shutdown. Unions are not required on flanged devices.

Install valves in horizontal piping with stem at or above center of pipe.

Install valves in a position to allow full stem movement.

FLANGED CONNECTIONS

Align flange surfaces parallel.

Assemble joints by sequencing bolt tightening to make initial contact of flanges & gaskets as flat & parallel as possible. Use suitable lubricants on bolt threads. Tighten bolts gradually & uniformly with torque wrench.

FIELD QUALITY CONTROL

Tests: After piping systems have been tested & put into service, but before final adjusting & balancing, inspect valves for leaks. Adjust or replace packing to stop leaks; replace valves if leak persists.

ADJUSTING & CLEANING

Cleaning: Clean mill scale, grease & protective coatings from exterior of valves & prepare valves to receive finish painting or insulation.

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SECTION 16010
BASIC ELECTRICAL REQUIREMENTS

PART 1 - GENERAL

SUMMARY

This Section includes general administrative & procedural requirements for electrical installations. The following administrative & procedural requirements are included in this Section to expand requirements specified elsewhere:

Maintenance manuals. Cutting & patching.	Rough-ins. Electrical installations.
---------------------------------------------	-----------------------------------------

Related Sections: The following sections contain requirements that relate to this section:

Div. 16 Section *Basic Electrical Materials & Methods* for materials & methods common to remainder of Div. 16, plus general related specifications including:

- Access to electrical installations.
- Electrical installation excavation within building boundaries & from building to utility connections.

Install all Work in compliance with:

- New York Board of Fire Underwriters.
- National Electric Code, NFPA 70, current edition.
- Local power company & telephone company standards.
- New York State Building Code.
- Life Safety Code, NFPA-101.
- Plans & Specifications in excess of requirements of codes & regulations & not contrary to same.

SUBMITTALS

General: Follow procedures specified in Div. 1 Sec. *Submittals*, & as specified in other Div. 16 Sections.

MAINTENANCE MANUALS

Submit manuals for all equipment supplied as part of this work.

PART 2 - PRODUCTS - Not applicable.

PART 3 - EXECUTION

IDENTIFICATION

Provide identification for all panels, contactors, transformers, disconnects & starters. Indicate by stencil paint or plastic tag on cover of equipment.

INSPECTIONS

Apply for & obtain all required permits & inspections, pay all fees & charges for same. Provide required inspection certificate for utility to transfer service. Provide certificate of approval from New York Board of Fire Underwriters prior to request for final payment.

ROUGH-IN

Verify final locations for rough-ins with field measurements & with requirements of actual equipment to be connected.

Refer to equipment specifications for rough-in requirements.

ELECTRICAL INSTALLATIONS

General: Sequence, coordinate & integrate various elements of electrical systems, materials & equipment. Comply with the following requirements:

- Coordinate electrical systems, equipment & materials installation with other building components.
- Verify all dimensions by field measurements.
- Where mounting heights are not detailed/dimensioned, install systems, materials & equipment to provide max. headroom possible.
- Coordinate connection of electrical systems with exterior underground & overhead utilities & services. Comply with requirements of governing regulations, franchised service companies & controlling agencies. Provide required connection for each service.
- Install systems, materials & equipment to conform with approved submittal data, including coordination drawings, to greatest extent possible. Conform to arrangements indicated, recognizing that portions of Work are shown only in diagrammatic form. Where coordination requirements conflict with individual system requirements, refer conflict to Engineer.
- Install systems, materials & equipment level & plumb, parallel & perpendicular to other building systems & components, where installed exposed in finished spaces.
- Install electrical equipment to facilitate servicing, maintenance & repair/replacement of equipment components. As much as practical, connect equipment for disconnecting ease, with minimum of interference with other installations.

CUTTING & PATCHING

General: Perform cutting, fitting & patching of electrical equipment & materials required to:

- Remove & replace Work not conforming to requirements.
- Install equipment & materials in existing structures.

Cut, remove & legally dispose of selected electrical equipment, components & materials as indicated, including but not limited to removal of electrical items indicated to be removed & items made obsolete by new Work.

Protect structure, furnishings, finishes & adjacent materials not indicated or scheduled to be removed.

Patch existing finished surfaces & building components using new materials matching existing materials.

TESTS

Perform all operations required for complete testing of all systems, equipment & related work as shown on Drawings or specified herein & in accordance with all applicable requirements of Specifications.

Before final acceptance, all specified tests shall be completed to satisfaction of Engineer, or his representative, who shall be sole judge of acceptability of such tests & who may direct performance of any tests & who may direct performance of any additional tests he deems necessary in order to determine

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acceptability of systems, equipment, material & workmanship. Any additional tests required by Engineer will be made at no additional costs to Owner.

All protective equipment shall be actuated to clearly demonstrate workability & operation. Demonstrate ability of each & every piece of equipment to meet design & operating requirements specified. Perform any & all other tests that may be required by local municipality, or other governing body, board or agency having jurisdiction.

Supports

Contractor shall provide all required supports, beams, angles, columns, hangers, rods, bases, braces, etc., to properly support his Contract equipment. All supports, etc., shall meet approval of Engineer.

Cleaning

Clean all equipment provided under this Contract.

- Clean building, by removing all debris, left-over piping, tubing, metal, cartons, papers, etc., left as result of this Work. Clean building as often as necessary, & when directed.

Storage & Protection of Materials

Before installation, store materials & equipment as follows:

- Protect against theft or damage from any cause & replace items stolen or damaged, at no cost to Owner.
- Store items subject to moisture damage, i.e.: controls, electrical devices, etc., in approved dry, heated area.

After installation, until final acceptance, this Contractor responsible for:

- Protecting materials & equipment from damage.
- Replacing damaged/marred equipment prior to final acceptance.

Excavation & Backfill

Provided complete by this contract for electrical construction. All work to be coordinated with general construction contractor so as not to delay progress of work.

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SECTION 16110
RACEWAYS

PART 1 - GENERAL

DESCRIPTION OF WORK

Extent of raceway work is indicated by drawings & schedules. Race-way types specified in this section include:

- Intermediate metal conduit.
- Rigid metal conduit.
- Fluid-tight flexible metal conduit.
- Nonmetallic conduit.
- Underground plastic utility duct.

QUALITY ASSURANCE

Manufacturers: Firms regularly engaged in raceway system manufacture of types/sizes required, whose products are in satisfactory use in similar service for not less than 5 years.

Installer's Qualifications: Firm with at least 3 years of successful installation experience on projects with electrical raceway work similar to that required for this project.

Codes & Standards:

NEMA Compliance: Comply with applicable portions of NEMA Standards Publications pertaining to raceways.

UL Compliance & Labeling: Comply with applicable requirements of UL safety standards pertaining to electrical raceway systems. Provide raceway products & components that have been UL-listed & labeled.

NEC Compliance: Comply with applicable requirements of NEC pertaining to construction & installation of raceway systems.

SUBMITTALS

Product Data: Submit mfr.'s. technical product data, including specifications & installation instructions, for each raceway system type required. Include data indicating materials comply with requirements.

PART 2 - PRODUCTS

METAL CONDUIT & TUBING

General: Provide metal conduit, tubing & fittings of types, sizes, grades & weights (wall thickness') for each service indicated. Where types & grades are not indicated, provide proper selection determined by Installer to fulfill wiring requirements & comply with applicable portions of NEC for raceways.

Rigid Steel Conduit: Provide rigid steel, zinc-coated, threaded type conforming to FS WW-C-581, ANSI C80.1 & UL 6. Provide zinc coating fused to inside & outside walls.

Intermediate Steel Conduit: Rigid intermediate grade (IMC) hot-dip galvanized conforming to FS WW-C-581 & UL 1242.

Flexible Metal Conduit: FS WW-C-566 & UL 1. Formed from continuous length spirally wound, interlocked zinc-coat strip steel.

Fluid-Tight Flexible Metal Conduit: Provide fluid-tight flexible metal conduit; construct of single strip, flexible, continuous, interlocked & double-wrapped steel; galvanized inside & outside; coat with fluid-tight jacket of flexible polyvinyl chloride (PVC).

Rigid Metal Conduit Fittings: Cast malleable iron, galvanized or cadmium plated, conforming to FS W-F-408. Use Type 1 fittings for rain tight connections. Use Type 2 fittings for concrete tight connections. Use Type 3 fittings for other miscellaneous connections.

Flexible Metal Conduit Fittings: Provide conduit fittings for use with flexible steel conduit of threadless hinged clamp type.

Straight Terminal Connectors: 1-piece body, female end with clamp & deep slotted machine screw for securing conduit & male threaded end provided with locknut.

45° or 90° Terminal Angle Connectors: 2-piece body construction with removable upper section, female end with clamp & deep slotted machine screw for securing conduit & male threaded end provided with locknut.

Fluid-Tight Flexible Metal Conduit Fittings: FS W-F-406, Type 1, Class 3, Style G. Provide cadmium plated, malleable iron fittings with compression type steel ferrule & neoprene gasket sealing rings, with insulated, or noninsulated throat.

Electrical Metal Tubing (EMT): FS WW-C-563, ANSI C80.3 & UL 797.

EMT Fittings: FS W-F-408.

- Use Type 1 fittings for rain tight connections.
- Use Type 2 fittings for concrete tight connections.
- Use Type 3 fittings for miscellaneous connections.

NONMETALLIC CONDUIT & DUCTS

General: Provide nonmetallic conduit, ducts & fittings of types, sizes & weights for each service indicated. If types & grades not indicated, provide proper selection determined by Installer to fulfill wiring requirements that comply with provisions of NEC for raceways.

Electrical Plastic Conduit:

Heavy Wall Conduit: Sched. 40, 90C, UL-rated, construct of poly-vinyl chloride & conforming to NEMA TC-2, for direct burial or normal above ground use, UL-listed in conformity with NEC Article 347.

Extra Heavy Wall Conduit: Sched. 80, UL-rated, construct of PVC compound C-200 & UL-listed in accordance with NEC Article 347 for direct burial/above ground use.

PVC Conduit & Tubing Fittings: NEMA TC 3, mate & match to conduit or tubing type & material.

Conduit & Tubing Accessories: Provide conduit, tubing & duct accessories of types, sizes & materials, complying with manufacturer's published product information, which mate & match conduit & tubing.

Conduit Bodies: Provide galvanized cast-metal conduit bodies of types, shapes & sizes as required to fulfill job requirements & NEC requirements. Construct conduit bodies with threaded-conduit-entrance ends, removable covers, either cast or of galvanized steel & corrosion-resistant screws.

Available Manufacturers: Subject to compliance with requirements, manufacturers offering conduit bodies which may be incorporated in work include, but are not limited to, the following:

Manufacturers: Subject to compliance with requirements, provide conduit bodies of one of the following:

- Killark Electric Mfg. Co.
- Arrow-Hart Div; Crouse-Hinds Co.
- Bell Electric Div; Square D
- O-Z/Gedney Div; General Signal
- Gould, Inc.
- Spring City Electrical Mfg. Co.
- Appleton Electric; Div of Emerson Electric Co.

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WIREWAYS

General: Provide electrical wire ways of types, grades, sizes & number of channels, for each type service as indicated. Provide complete assembly of raceway including, but not limited to, couplings, offsets, elbows, expansion joints, adapters, holddown straps, end caps & other components & accessories as required for complete system.

PART 3 - EXECUTION

INSPECTION

Examine areas & conditions under which raceways are to be installed & substrate which will support raceways. Notify engineer in writing of conditions detrimental to proper completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer.

INSTALLATION OF RACEWAYS

General: Install raceways as indicated; in compliance with NEC & NECA's *Standard of Installation* & in accordance with manufacturers' written installation instructions. Install units plumb & level & maintain manufacturer's recommended clearances.

Coordinate with other work including wires/cables, boxes & panel work, as necessary to interface installation of electrical raceways & components with other work.

INSTALLATION OF CONDUITS

General: Install concealed conduits in new construction work, either in walls, slabs or above hung ceilings. Conceal conduits in existing work where practicable. Where conduits cannot be concealed in finished areas, use surface metal raceways.

Mechanically fasten together metal conduits, enclosures & raceways for conductors to form continuous electrical conductor. Connect to electrical boxes, fittings & cabinets to provide electrical continuity & firm mechanical assembly.

Avoid use of dissimilar metals throughout system to eliminate possibility of electrolysis. Where dissimilar metals are in contact, coat surfaces with corrosion inhibiting compound before assembling.

Install misc. fittings such as reducers, 3-piece unions, split couplings, chase nipples & plugs that have been specifically designed & manufactured for their particular application. Install expansion fittings in raceways every 200' linear run or wherever structural expansion joints are crossed.

Use roughing-in dimensions of electrically operated unit furnished by supplier. Set conduit & boxes for connection to units after receiving review of dimensions & checking location with other trades.

Provide nylon pull cord in empty conduits where indicated. Test conduits required to be installed, but left empty, test with ball mandrel. Clear any conduit which rejects ball mandrel. Pay costs involved for restoration of conduit & surrounding surfaces to original condition.

Conduit Installation: Provide rigid steel zinc-coated conduit where embedded in concrete, masonry, earth, or installed outdoors. Follow minimum requirements in other areas as follows:

Use rigid steel zinc-coated conduit in mechanical equipment rooms, electrical equipment rooms, crawl spaces, ceiling plenum areas & in warehouse spaces below 18'-0" height.

Use flexible conduit in movable partitions & from outlet boxes to recessed lighting fixtures & final 24" of connection to

motors or control items subject to movement or vibration & in cells of precast concrete panels.

Use fluid-tight flexible conduit where subjected to one or more of the following conditions:

- Exterior location
- Corrosive atmosphere
- Moist or humid atmosphere where condensation can be expected to accumulate
- Subjected to water spray or dripping oil, water or grease

Cut conduits straight, properly ream & cut threads for heavy wall conduit deep & clean. Field-bend conduit with benders designed for purpose so as not to distort nor vary internal diameter.

Size conduits to meet NEC, except no conduit smaller than 3/4" shall be embedded in concrete or masonry. Fasten conduit terminations in sheet metal enclosures by 2 locknuts & terminate with bushing. Install locknuts inside & outside enclosure.

Conduits are not to cross pipe shafts/ventilating duct openings. Keep conduits minimum distance of 6" from parallel flue runs, hot water pipes or other sources of heat. Wherever possible, install horizontal raceway runs above water & steam piping.

Support riser conduit at each floor level with clamp hangers.

Use of running threads at conduit joints & terminations is prohibited. Where required, use 3-piece union or split coupling.

Complete installation of electrical raceways before starting installation of cables/wires within raceways.

Concealed Conduits:

- Metallic raceways installed underground or in floors below grade, or outside are to have conduit threads painted with corrosion inhibiting compound before couplings are assembled. Draw up coupling & conduit sufficiently tight to ensure watertightness.
- For floors-on-grade, install conduits under concrete slabs.
- Install underground conduits at least 24" below finished grade.

Conduits in Concrete Slabs:

- Place conduits between bottom & top reinforcing steel.
- Place conduits either parallel, or at 90°, to main reinforcing steel.
- Separate conduits by not less than diameter of largest conduit to ensure proper concrete bond.
- Conduits crossing in slab must be reviewed for proper cover by Engineer.
- Embedded conduit diameter not to exceed $\frac{1}{3}$ slab thickness.

Install conduits as not to damage or run through structural members. Avoid horizontal or cross runs in building partitions or side walls.

Exposed Conduits:

- Install exposed conduit work as not to interfere with ceiling inserts, lights or ventilation ducts or outlets.
- Install exposed conduits/extensions from concealed conduit systems neatly, parallel or at right angles to building walls.

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- Support exposed conduits by use of hangers, clamps, or clips.
- Support conduits on each side of bends & on spacing not to exceed following: up to 1": 6'-0"; 1-1/4" & over: 8'-0".
- Run conduits for outlets on waterproof walls exposed. Set anchors for supporting conduit on waterproof wall in waterproof cement.
- Above requirements for exposed conduits apply to conduits installed in space above hung ceilings & in crawl spaces.

Non-Metallic Conduits:

- Make solvent cemented joints in accordance with recommendations of manufacturer.
- Install PVC conduits in accordance with NEC & in compliance with local utility practices.

Conduit Fittings:

- Construct locknuts for securing conduit to metal enclosure with sharp edge for digging into metal & ridged outside circumference for proper fastening.
- Bushings for terminating conduits smaller than 1 $\frac{1}{4}$ " are to have flared bottom & ribbed sides, with smooth upper edges to prevent injury to cable insulation.
- Install insulated type bushings for terminating conduits 1 $\frac{1}{4}$ " & larger. Bushings are to have flared bottom & ribbed sides. Upper edge to have phenolic insulating ring molded into bushing.
- Bushing of standard or insulated type to have screw type grounding terminal.
- Miscellaneous fittings such as reducers, chase nipples, 3-piece unions, split couplings & plugs to be specifically designed for their particular application.

INSTALLATION OF RACEWAYS & WIREWAYS

General: Mechanically assemble metal enclosures & raceways for conductors to form continuous electrical conductor & connect to electrical boxes, fittings & cabinets as to provide effective electrical continuity & rigid mechanical assembly.

- Avoid use of dissimilar metals throughout system to eliminate possibility of electrolysis. Where dissimilar metals are in contact, coat all surfaces with corrosion inhibiting compound before assembling.
- Install expansion fittings in all raceways wherever structural expansion joints are crossed.
- Make changes in direction of raceway run with proper fittings, supplied by raceway manufacturer. No field bends of raceway section will be permitted.
- Properly support & anchor raceways for their entire length by structural materials. Raceways are not to span any space unsupported.
- Use boxes as supplied by raceway manufacturer when junction pull or devices boxes are required. Standard electrical *handy* boxes, etc. shall be permitted for use with surface raceway installations.

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SECTION 16120
WIRES & CABLES

PART 1 - GENERAL

SUMMARY

This Section includes wires, cables & connectors for power, lighting, signal, control & related systems rated 600V & less.

Related Sections: The following Sections contain requirements that relate to this section: Div. 16 Section *Electrical Boxes & Fittings* for connectors for Terminating Cables in boxes & other electrical enclosures.

QUALITY ASSURANCE

Regulatory Requirements: Conform to applicable codes & regulations regarding toxicity of combustion products of insulating materials.

UL Compliance: Provide components that are listed & labeled by UL under the following standards.

- UL Std. 83 Thermoplastic-Insulated Wires & Cables.
- UL Std. 486A Wire Connectors & Soldering Lugs for use with Copper Conductors.

NEMA/ICEA Compliance: Provide components which comply with the following standards:

- WC-5 Thermoplastic-Insulated Wire & Cable for Transmission & Distribution of Electrical Energy.

PART 2 - PRODUCTS

MANUFACTURERS

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in work include, but are not limited to, the following:

Electrical Wire & Cable:

- American Insulated Wire Corp.
- Brintec Corp.
- Carol Cable Co. Inc.
- Senator Wire & Cable Co.
- Southwire Company.

Control & Instrumentation Wire & Cable

- Belden Wire & Cable
- Alpha Wire & Cable
- Houston Wire & Cable

Connectors for Wires & Cable Conductors:

- AMP
- O-Z/Gedney Co.
- Square D Company.
- Panduit

WIRES & CABLES

General: Provide wire & cable suitable for temperature, conditions & location where installed.

Conductors: shall be annealed copper, 98% conductivity. Provide #12 AWG min. size for branch circuit wiring, #14 AWG min. size for signal circuits, unless otherwise shown or specified. Provide #10 min. size for branch circuit runs which exceed 100 ft. unless otherwise directed. Provide solid conductors for power

& lighting circuits #10 AWG & smaller. Provide stranded conductors for sizes #8 AWG & larger.

Insulation: Provide THHN/THWN insulation for all conductors 500MCM & larger & #8 AWG & smaller. For all other sizes provide THW, THHN/ THWN or XHHW insulation as appropriate for locations where installed. 600V rating for building feeders & branch circuits. 300V rating for signal systems operating at 50V or less. Color Coding for phase identification in accordance with Table 1 in Part 3 below.

Jackets: Factory-applied nylon or PVC external jacketed wires & cables for pulls in raceways over 100' in length, for pulls in raceways with more than three equivalent 90° bends, for pulls in conduits underground or under slabs on grade & where indicated. Wiring to motors or other fixed equipment when installed in flexible conduit shall be stranded type.

CONNECTORS FOR CONDUCTORS

Provide UL-listed factory-fabricated, solderless metal connectors of sizes, ampacity ratings, materials, types & classes for applications & for services indicated. Use connectors with temperature ratings equal to or greater than those of wires upon which used.

CONTROL & INSTRUMENTATION CABLE

Conductors shall be stranded tinned copper, polyethylene insulated, 300V rated, unless otherwise indicated. Conductors shall be color cod-ed. Sizing shall be as required for intended purpose. Minimum conductor size is #18 AWG, except pulls over 100' shall be #16 AWG minimum.

Shielding: All instrumentation & control signal cables for 50V or less signals shall have aluminum-polyester shield with stranded tinned copper drain wire.

Jacket: Cables shall have flame-retardant PVC overall jacket.

PART 3 - EXECUTION

GENERAL

Install electrical cables, wires & connectors in compliance with NEC, latest edition.

EQUIPMENT

All equipment & systems as shown on drawings or specified herein shall be installed in accordance with all local & state codes & regulations having jurisdiction.

WIRE & CABLE

All wire & cable, including instrumentation & control cable shall be installed in approved raceway. Coordinate cable installation with Work of other contractors.

Pull conductors simultaneously where more than one is being installed in same raceway. Use UL listed pulling compound or lubricant, where necessary. Oil or grease based lubricants will not be approved.

Use pulling means including, fish tape, cable, rope & basket weave wire/cable grips which will not damage cables or raceways. Do not use rope hitches for pulling attachment to wire or cable.

Conceal all cable in finished spaces.

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Install exposed cable parallel & perpendicular to surfaces or exposed structural members & follow surface contours, where possible.

All underground runs will be continuous.

Install splice & tap connectors which possess equivalent or better mechanical strength & insulation rating than conductors being spliced.

Splices & connections shall be made in accessible outlets, pull boxes or junction boxes using mechanical connectors similar to buchanan splice caps, Ideal wire nuts or T&B Sta-kon joints for size #10 AWG or smaller.

Use Frankel, Dossert, T&B, Panduit or Burndy connectors for wire sizes #8 AWG & larger, equal to Burndy type KSU.

Insulate all splices, taps & connections with UL labeled gauge plastic tape or molded composition caps.

Provide adequate length of conductors within electrical enclosures & train conductors to terminal points with no excess. Bundle multiple conductors, with conductors larger than #10 AWG cabled in individual circuits. Make terminations so there is no bare conductor at terminal. Minimize stress on terminal points.

CONTROL & INSTRUMENTATION CABLES

Control & instrumentation cables may not be spliced without permission of engineer.

Color coding of wires must be consistent. Conductors may not change colors between termination points.

Install all control & instrumentation cables per manufacturer's recommendations. Drain wire on shielded cables must be grounded on one end only.

TABLE 1: Color Coding for Phase Identification:

Color code secondary service, feeder & branch circuit conductors with factory applied color as follows:

<u>208y/120Volts</u>	<u>Phase</u>	<u>480y/277 Volts</u>
Black	A	Yellow
Red	B	Brown
Blue	C	Orange
White	Neutral	White
Green	Ground	Green

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SECTION 16135
ELECTRICAL BOXES AND FITTINGS

PART 1 GENERAL

NEC Compliance: Comply with NEC as applicable to construction and installation of electrical wiring boxes and fittings.

UL Compliance: Comply with UL Std #50, 514-series and 886. Provide electrical boxes/fittings which are UL-listed & labeled.

NEMA Compliance: Comply with applicable requirements of NEMA Stds/Pub #OS 1, OS2, and Pub 250.

Fabricated Materials:

Outlet Boxes: Provide galvanized coated flat-rolled sheet-steel outlet wiring boxes of shapes, cubic inch capacities & sizes, inc. box depths as indicated, suitable for installation at respective locations. Construct outlet boxes with mounting holes & with cable & conduit-size knockout openings in bottom & sides. Provide boxes with threaded screw holes, with corrosion-resistant cover & grounding screws for fastening surface & device type box covers & for equipment type grounding.

Outlet Box Accessories: Provide as required for each installation inc. box supports, mounting ears/brackets, wallboard hangers, box extension rings, fixture studs, cable clamps & metal straps for supporting outlet boxes, which are compatible with outlet boxes being used to fulfill installation requirements for individual wiring situations. Choice of accessories is Installer's code-compliance option.

Device Boxes: Provide galvanized coated flat-rolled sheet-steel non-gangable device boxes of shapes, cubic inch capacities, & sizes, including box depths as indicated, suitable for installation at respective locations. Construct device boxes for flush mounting with mounting holes & with cable-size knockout openings in bottom & ends & with threaded screw holes in end plates for fastening devices. Provide cable clamps & corrosion-resistant screws for fastening cable clamps & for equipment type grounding.

Device Box Accessories: Provide device box accessories as required for each installation including mounting brackets, device box extensions, switch box supports, plaster ears & plaster board expandable grip fasteners, which are compatible with device boxes being utilized to fulfill installation requirements for individual wiring situations. Choice of accessories is Installer's code-compliance option.

Manufacturers: Provide interior outlet boxes of one of the following (for each type interior box):

- Adalet-PLM Div, Scott Fetzer Co.
- Appleton Electric; Emerson Electric Co.
- Bell Electric; Square D Company
- Eagle Electric Mfg. Co., Inc.
- Midland-Ross Corp.
- Oz/Gedney; General Signal Co.
- Pass & Seymour, Inc.
- RACO Div; Harvey Hubbell, Inc.
- Thomas & Betts Co.

Raintight Outlet Boxes: Provide corrosion-resistant cast-metal raintight outlet wiring boxes of types, shapes & sizes, including depth of boxes, with threaded conduit holes for fastening electrical conduit, cast-metal face plates with spring-hinged water-tight caps suitably configured for each application

including face plate gaskets, corrosion-resistant plugs & fasteners.

Mfrs.: Provide raintight outlet boxes of one of the following:

- Appleton Electric; Emerson Electric Co.
- Arrow-Hart Div, Crouse-Hinds Co.
- Bell Electric; Square D Company
- Eagle Electric Mfg. Co., Inc.
- Gould, Inc.
- Harvey Hubbell, Inc.
- OZ/Gedney; General Signal Co.
- Pass & Seymour, Inc.

Safety Outlet Enclosures: Provide flame retardent, UV stabilized polycarbonate, non-conductive outlet enclosures which are rainproof while in use, to eliminate nuisance GFCI tripping. Enclosure to be complete with sealing gaskets and stainless steel mounting screws. Enclosure to be UL listed, NEMA 3R rating while in use, industrial spec grade.

Safety Outlet Enclosure to be manufactured by Tag Mac Corporation, Tempe, Arizona or approved equal.

Junction & Pull Boxes: Provide galvanized code-gage sheet steel junction & pull boxes with screw-on covers of types, shapes & sizes to suit each respective location & installation with welded seams & equipped with stainless steel nuts, bolts, screws & washers.

Mfrs.: Provide junction & pull boxes of one of the following (for each type junction & pull box):

- Adalet-PLM Div, Scott Fetzer Co.
- Appleton Electric; Emerson Electric Co.
- Arrow-Hart Div, Crouse-Hinds Co.
- Bell Electric; Square D Co.
- GTE Corporation.
- Keystone Columbia, Inc.
- OZ/Gedney Co.; General Signal Co.
- Spring City Electrical Mfg. Co.

Bushings, Knockout Closures & Locknuts: Provide corrosion-resistant box knockout closures, conduit locknuts & malleable iron conduit bushings, offset connectors of types & sizes to suit respective installation requirements & applications.

Manufacturers: Provide bushings, knockout closures, locknuts & connectors of one of the following:

- Adalet-PLM Div; Scott Fetzer Co.
- AMP, Inc.
- Arrow-Hart Div; Crouse-Hinds Co.
- Appleton Electric Co.; Emerson Electric Co.
- Bell Electric; Square D Co.
- Midland-Ross Corp.
- Midwest Electric; Cooper Industries Inc.
- RACO Div; Harvey Hubbell Inc.
- Thomas & Betts Co., Inc.

MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
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Installation:

Install electrical boxes & fittings as indicated in accordance with mfr.'s written instructions, applicable requirements of NEC & NECA's *Standard of Installation* & in accordance with recognized industry practices to fulfill project requirements.

Coordinate installation of electrical boxes & fittings with wire/cable & raceway installation work.

Provide weathertight outlets for interior & exterior locations exposed to weather or moisture.

Install electrical boxes in those locations which ensure ready accessibility to enclosed electrical wiring.

Avoid installing aluminum products in concrete.

Fasten electrical boxes firmly & rigidly to substrates, or structural surfaces to which attached, or solidly embed electrical boxes in concrete or masonry.

Ground electrical boxes properly upon completion of installation work & demonstrate compliance with requirements.

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CONTRACT NO. 2 – GENERAL CONSTRUCTION

SECTION 16190
SUPPORTING DEVICES

PART 1 - GENERAL

DESCRIPTION OF WORK

Extent of supports, anchors, sleeves & seals is indicated by drawings & schedules and/or specified in other Div. 16 sections.

Types of supports, anchors, sleeves & seals specified in this section include the following:

- | | |
|---------------------------|---------------------------|
| •Clevis hangers. | •Two-hole conduit straps. |
| •Riser clamps. | •Round steel rods. |
| •C-clamps. | •Lead expansion anchors. |
| •I-beam clamps. | •Toggle bolts. |
| •One-hole conduit straps. | •Wall & floor seals. |

Supports, anchors, sleeves & seals furnished as part of factory-fabricated equipment, are specified as part of that equipment assembly in other Div. 16 sections.

QUALITY ASSURANCE

Manufacturers: Firms regularly engaged in manufacture of supporting devices of types, sizes & ratings required, whose products have been in satisfactory use in similar service for not less than 3 years.

Installer's Qualifications: Firm with at least 3 years of successful installation experience with projects utilizing electrical supporting device work similar to that required for project.

NEC Compliance: Comply with NEC requirements as applicable to construction & installation of electrical supporting devices.

NECA Compliance: Comply with National Electrical Contractors Association's *Standard of Installation* pertaining to anchors, fasteners, hangers, supports & equipment mounting.

UL Compliance: Provide electrical components which are UL-listed & labeled.

PART 2 - PRODUCTS

MANUFACTURED SUPPORTING DEVICES

General: Provide supporting devices which comply with manufacturer's standard materials, design & construction in accordance with published product information, & as required for complete installation; & as herein specified. Where more than one type of supporting device meets indicated requirements, selection is Installer's option.

Supports: Provide supporting devices of types, sizes & materials indicated & having the following construction features:

- Clevis Hangers: For supporting 2" rigid metal conduit; galvanized steel; with $\frac{1}{2}$ " dia. hole for round steel rod; approx. 54 lbs./100 units.
- Reducing Couplings: Steel rod reducing coupling, $\frac{1}{2}$ " x $\frac{5}{8}$ "; black steel; approx. 16 lbs./100 units.
- C-Clamps: Black malleable iron; $\frac{1}{2}$ " rod size; approx. 70 lbs./100 units.
- I-Beam Clamps: Black steel, $1\frac{1}{4}$ " x $\frac{3}{16}$ " stock; $\frac{3}{8}$ " cross bolt; flange width 2"; approx. 52 lbs./100 units.
- One-Hole Conduit Straps: For supporting $\frac{3}{4}$ " rigid metal conduit; galvanized steel; approx. 7 lbs./100 units.

- Two-Hole Conduit Straps: For supporting $\frac{3}{4}$ " rigid metal conduit, galvanized steel; $\frac{3}{4}$ " strap width; & $2\frac{1}{8}$ " between center of screw holes.

Hexagon Nuts: For $\frac{1}{2}$ " rod size; galvanized steel; approx. 4 lbs./100 units.

Round Steel Rod: Black steel; $\frac{1}{2}$ " dia.; approx. 67 lbs./100'.

Offset Conduit Clamps: For supporting 2" rigid metal conduit; black steel; approx. 200 lbs./100 units.

Anchors: Provide anchors of types, sizes & materials indicated, with the following construction features:

Lead Expansion Anchors: $\frac{1}{2}$ "; approx. 38 lbs./100 units.

Toggle Bolts: Springhead; $\frac{3}{16}$ " x 4"; approx. 5 lbs./100 units.

Available Manufacturers: Subject to compliance with requirements, manufacturers offering anchors which may be incorporated in work include, but are not limited to, the following:

Manufacturers: Subject to compliance with requirements, provide anchors of one of the following:

- | | |
|------------------------------------------|---------------------------|
| •Abbeon Cal Inc.. | •Elcen Metal Products Co. |
| •Ideal Industries, Inc. | •Joslyn Mfg. & Supply Co. |
| •McGraw Edison Co. | •Rawlplug Co. Inc. |
| •Star Expansion Co. | •U.S. Expansion Bolt Co. |
| •Ackerman Johnson Fastening Systems Inc. | |

U-Channel Strut Systems: Provide U-channel strut system for supporting electrical equipment, 12-gage hot-dip galvanized steel, of types & sizes indicated; construct with $\frac{9}{16}$ " dia. holes, 8" o.c. on top surface, with standard green finish, & with the following fittings which mate & match with U-channel:

- | | |
|------------------------|---------------------------|
| •Fixture hangers. | •Channel hangers. |
| •End caps. | •Beam clamps. |
| •Wiring stud. | •Thinwall conduit clamps. |
| •Rigid conduit clamps. | •Conduit hangers. |
| •U-bolts. | |

Available Manufacturers: Subject to compliance with requirements, manufacturers offering channel systems which may be incorporated in work include, but are not limited to, the following:

- Allied Tube & Conduit Corp.
- B-Line Systems, Inc.
- Elcen Metal Products Co.
- Greenfield Mfg. Co., Inc.
- Midland-Ross Corp.
- OZ/Gedney Div; General Signal Corp.
- Power-Strut Div; Van Huffel Tube Corp.
- Unistrut Div; GTE Products Corp.

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PART 3 - EXECUTION

INSTALLATION OF SUPPORTING DEVICES

Install hangers, anchors, sleeves & seals as indicated, in accordance with mfr.'s. written instructions & with recognized industry practices to insure supporting devices comply with requirements. Comply with requirements of NECA & NEC for installation of supporting devices.

Coordinate with other electrical work, including raceway & wiring work, to interface installation of supporting devices with other work.

Install hangers, supports, clamps & attachments to support conduit properly from building structure. Arrange for grouping of parallel runs of horizontal conduits to be supported together on trapeze type hangers where possible. Install supports with spacings indicated & in compliance with NEC requirements.

Torque sleeve seal nuts, complying with manufacturer's recommended values. Ensure that sealing grommets expand to form watertight seal.

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SECTION 16195
ELECTRICAL IDENTIFICATION

PART 1 - GENERAL

DESCRIPTION OF WORK

Electrical identification extent indicated by drawings & schedules. Types of electrical identification specified in this section include the following:

- Electrical power, control & communication conductors.
- Operational instructions & warnings.
- Danger signs.
- Equipment/system identification signs.

Refer to Div. 1 general requirements section, *Identification Systems*, for equipment & system nameplates & performance data; not work of this section.

QUALITY ASSURANCE

Manufacturers: Firms regularly engaged in manufacture of electrical identification products of types required, whose products have been in satisfactory use in similar service for not less than 3 years.

NEC Compliance: Comply with NEC as applicable to installation of identifying labels & markers for wiring & equipment.

UL Compliance: Comply with applicable portions of UL Std 969, *Marking & Labeling Systems*, pertaining to electrical identification systems.

NEMA Compliance: Comply with applicable requirements of NEMA #WC-1 & WC-2 pertaining to power/control conductor identification.

PART 2 - PRODUCTS

ACCEPTABLE MANUFACTURERS

Available Manufacturers: Subject to compliance with requirements, manufacturers of identification products which may be incorporated in work include, but are not limited to the following:

- | | |
|---------------------|--------------------------|
| • Brady, W.H. Co. | • Ideal Industries, Inc. |
| • Cole-Flex Corp. | • Markal Company. |
| • Direct Safety Co. | • Panduit |

ELECTRICAL IDENTIFICATION MATERIALS

General: Unless otherwise indicated, provide manufacturer's standard products of categories/types required for each application. Where more than one type is specified for application, selection is Installer's option, but provide single selection for each application.

Color-Coded Plastic Tape:

General: Provide manufacturer's standard self-adhesive vinyl tape not less than 3 mils thick by 1.5" wide.

Plasticized Tags:

General: Manufacturer's standard preprinted/partially preprinted accident-prevention/operational tags, of plasticized card stock with matte finish suitable for writing, approximately 3-1/4" x 5-5/8", with brass grommets & wire fasteners & with appropriate preprinted wording including large-size primary working, e.g., DANGER, CAUTION, DO NOT OPERATE.

Self-Adhesive Plastic Signs:

General: Provide manufacturer's standard, self-adhesive, preprinted, flexible vinyl signs for operational instructions or warnings; of sizes suitable for application areas & adequate for visibility, with proper wording for each application, e.g., 208V, EXHAUST FAN, RECTIFIER.

- Colors: Unless otherwise indicated or required by governing regulations, provide orange signs with black lettering.

Baked Enamel Danger Signs:

General: Provide manufacturer's standard *DANGER* signs of baked enamel finish on 20-ga. steel; of standard red, black & white graphics; 14" x 10" size except where 10" x 7" is largest size which can be applied where needed & except where larger size is needed for adequate vision; with recognized standard explanation wording, e.g., HIGH VOLTAGE, KEEP AWAY, BURIED CABLE, DO NOT TOUCH SWITCH).

Engraved Plastic-Laminate Signs:

General: Provide engraving stock melamine plastic laminate, complying with FS L-P-387, in sizes & thickness' indicated, engraved with engraver's standard letter style of sizes & wording indicated, black face & white core (letter color) except as otherwise indicated, punched for mechanical fastening except where adhesive mounting is necessary because of substrate.

- Thickness: 1/16", for units up to 20 sq. in. or 8" length; 1/8" or larger units.
- Fasteners: Self-tapping stainless steel screws, except contact-type permanent adhesive where screws cannot or should not penetrate substrate.

LETTERING & GRAPHICS

General: Coordinate names, abbreviations & other designations used in electrical identification work, with corresponding designations shown, specified or scheduled. Provide numbers, lettering & wording as indicated or, if not otherwise indicated, as recommended by manufacturers or as required for proper identification & operation/maintenance of electrical systems & equipment. Comply with ANSI A13.1 pertaining to minimum sizes for letters & numbers.

PART 3 - EXECUTION

APPLICATION & INSTALLATION

General Installation Requirements: Install electrical identification products as indicated, in accordance with manufacturer's written instructions & NEC requirements.

Coordination: Where identification is to be applied to surfaces requiring finish, install identification after painting completion.

Regulations: Comply with governing regulations & requests of governing authorities for identification of electrical work.

Conduit Identification: Where electrical conduit is exposed in spaces with exposed mechanical piping which is identified by color-coded method, apply color-coded identification on electrical conduit in manner similar to piping identification. Except as otherwise indicated, use orange as coded color for conduit.

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CONTRACT NO. 2 – GENERAL CONSTRUCTION

Cable/Conductor Identification: Apply cable/conductor identification, on each cable/ conductor in each box/enclosure/cabinet where wires terminate or are spliced. Match identification with marking system used in panelboards, shop drawings, contract documents & similar previously established identification for project electrical work.

Operational Identification & Warnings: Wherever reasonably required to ensure safe & efficient operation & maintenance of electrical systems & electrically connected mechanical systems & general systems & equipment, including prevention of misuse of electrical facilities by unauthorized personnel, install self-adhesive plastic signs or similar equivalent identification, instruction or warnings on switches, outlets & other controls, devices & covers of electrical enclosures. Where detailed instructions or explanations are needed, provide plasticized tags with clearly written messages adequate for intended purposes.

Danger Signs: In addition to installation of danger signs required by governing regulations & authorities, install appropriate danger signs at locations indicated or subsequently identified by Installer of electrical work as constituting similar dangers for persons in or about project.

- High Voltage: Install danger signs wherever it is possible, under any circumstances, for persons to come into contact with electrical power of voltages higher than 110-120V.
- Critical Switches/Controls: Install danger signs on switches & similar controls, regardless whether concealed or locked up, where untimely or inadvertent operation (by anyone) could result in significant danger to persons, or damage or loss of property.

Equipment/System Identification: Install engraved plastic-laminate sign on each major unit of electrical equipment in project; including central or master unit of each electrical system including communication/ control/signal systems, unless unit is specified with its own self-explanatory identification or signal system. Except as otherwise indicated, provide single line of text, 1/2" high lettering on 1-1/2" high sign (2" high where 2 lines are required), white lettering in black field. Provide text matching terminology & numbering of contract documents & shop drawings. Provide signs for each unit of the following categories of electrical work.

Panelboards, electrical cabinets & enclosures.

Install signs at locations indicated or, where not otherwise indicated, at location for best convenience of viewing without interference with operation & maintenance of equipment. Secure to substrate with fasteners, except use adhesive where fasteners should not or cannot penetrate substrate.

MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION

SECTION 16452
GROUNDING

PART 1 - GENERAL

SUMMARY

Extent of electrical grounding/bonding work is indicated by drawings, schedules & as specified herein. Grounding/bonding work is defined to encompass systems/circuits/equipment.

Type of electrical grounding & bonding work specified in this section includes the following: Solidly grounded. Applications of electrical grounding & bonding work in this section include the following: Raceways, Enclosures & Equipment.

Refer to other Div. 16 sections for wires/cables, electrical raceways, boxes, fittings & wiring devices required in conjunction with electric grounding/bonding work; not work of this section.

QUALITY ASSURANCE

Manufacturer's Qualifications: Firms regularly engaged in manufacture of grounding & bonding products, of types & ratings required & ancillary grounding materials, including stranded cable, copper braid & bus, grounding electrodes & plate electrodes & bonding jumpers whose products have been in satisfactory use in similar service for not less than 5 years.

Installer's Qualifications: Firm with at least 3 years of successful installation experience on projects with electrical grounding work similar to that required for project.

Codes & Standards:

Electrical Code Compliance: Comply with applicable local electrical code requirements of authority having jurisdiction & NEC as applicable to electrical grounding & bonding, pertaining to systems, circuits & equipment.

UL Compliance: Comply with applicable requirements of UL Standards #467, *Electrical Grounding & Bonding Equipment* & 869, *Electrical Service Equipment*, pertaining to grounding & bonding of systems, circuits & equipment. In addition, comply with UL Std 486A, *Wire Connectors & Soldering Lugs for Use with Copper Conductors*. Provide grounding & bonding products which are UL-listed & labeled for their intended usage.

PART 2 - PRODUCTS

MANUFACTURERS

Available Manufacturers: Subject to compliance with requirements, manufacturers offering grounding & bonding products which may be incorporated in work include, but are not limited to, the following:

- Burdny Corporation.
- Ideal Industries, Inc.
- Joslyn Corporation.
- Okonite Company.
- Adalet-PLM Div; Scott Fetzer Co.
- OZ Gedney Div; General Signal Corp.
- Thomas & Betts Corp.

GROUNDING & BONDING

Materials & Components:

General: Unless otherwise indicated, provide electrical grounding/bonding systems indicated; with assembly of materials including, but not limited to, cables/wires, connectors, solderless lug terminals & other accessories needed for complete installation. Where more than one type component

product meets indicated requirements, selection is Installer's option. If materials/components are not indicated, provide products that comply with NEC, UL & IEEE requirements & with established industry standards for those applications indicated.

Conductors: Provide electrical grounding conductors for grounding system connections that match power supply wiring materials & are sized according to NEC.

Bonding Plates, Connectors, Terminals & Clamps: Provide electrical bonding plates, connectors, terminals, lugs & clamps as recommended by bonding plate, connector, terminal & clamp manufacturers for indicated applications.

Electrical Grounding Connection Accessories: Provide electrical insulating tape, heat-shrinkable insulating tubing, welding materials, bonding straps, as recommended by accessories manufacturers for type service indicated.

Grounding Electrode: Provide 8' UL listed, 5/8" Ø Copper Clad.

PART 3 - EXECUTION

EXAMINATION

Examine areas & conditions under which electrical grounding & bonding connections are to be made & notify Engineer in writing of conditions detrimental to proper completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer.

INSTALLATION OF ELECTRICAL GROUNDING & BONDING SYSTEMS

General: Install electrical grounding/bonding systems as indicated, in accordance with manufacturer's instructions & applicable portions of NEC, NECA's *Standard of Installation* & in accordance with recognized industry practices to ensure that products comply with requirements.

Coordinate other electrical work as necessary to interface installation of electrical grounding & bonding system work.

Connect exposed noncurrent-carrying metal electrical equipment parts, metal raceway systems, raceway & cable grounding conductors, receptacle ground connectors & plumbing systems.

Tighten grounding/bonding connectors & terminals, including screws & bolts, in accordance with manufacturer's published torque tightening values for connectors & bolts. Where manufacturer's torquing requirements are not indicated, tighten connections to comply with tightening torque values specified in UL 486A to assure permanent & effective grounding. Route grounding connections & conductors to ground & protective devices in shortest & straightest paths as possible to minimize transient voltage rises.

Install clamp-on connectors on clean metal contact surfaces, removing surface coating to ensure electrical conductivity & circuit integrity. Furnish & install new acceptable ground rods. Bond neutral conductors to ground as shown on one-line diagram.

MONTGOMERY COUNTY SANITARY DISTRICT NO. 1
WASTEWATER TREATMENT PLANT
CONTRACT NO. 2 – GENERAL CONSTRUCTION

SECTION 16710
CONDUIT SYSTEM

PART 1 - GENERAL

Work Included: Provide all labor, materials, equipment & services to perform all operations required for complete installation & related work as shown in all Contract Documents.

All conduits and feeds shall meet the current edition of National Electric Code, NFPA 70.

Submittals: Conduit type.

PART 2 - PRODUCTS

General

Furnish and install separate power and control conduits where necessary to prevent power wiring from interfering with control and alarm wiring.

POWER CONDUIT

Furnish and install Schedule 40 PVC conduit from MCC1 in Control Building to equipment at the secondary clarifiers for installation of power wiring as specified and shown on the plans.

CONTROL CONDUIT

Furnish and install Schedule 40 PVC conduit from MCC1 in Control Building to equipment at the secondary clarifiers for installation of alarm and control wiring as specified and shown on the plans.

PART 3 - EXECUTION

Conduit shall be 18" minimum and 24" maximum below grade, unless otherwise noted. Conduit to be watertight. Wall penetrations to be sealed. See drawing trench detail for conduit installation. Conduit to have 3" tamped sand bedding with tamped sand backfill to 4" over conduit. Contractor to coordinate with National Grid & provide sufficient conduit & wire to complete connection to pump station control panels.

EXHIBIT 1
NYS PREVAILING WAGE RATE SCHEDULE



Andrew M. Cuomo, Governor

Roberta Reardon, Commissioner

Montgomery County San District
Douglas Cole, Project Engineer
Prime Engineering
7 South Church Street
Schenectady NY 12305

Schedule Year 2017 through 2018
Date Requested 06/16/2017
PRC# 2017006404

Location MCSD#1 WWTP
Project ID# 42-1702
Project Type Clarifier rehabilitation and leachate piping work

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 2017 through June 2018. 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.state.ny.us. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

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

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

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

NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: _____ Date Cancelled: _____

Name & Title of Representative: _____

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

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

Introduction

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

Responsibilities of the Department of Jurisdiction

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

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

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

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

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

Hours

No laborer, worker, or mechanic in the employ of a contractor or subcontractor engaged in the performance of any public work project shall be permitted to work more than eight hours in any day or more than five days in any week, except in cases of extraordinary emergency. The contractor and the Department of Jurisdiction (Contracting Agency) may apply to the Bureau of Public Work for a dispensation permitting workers to work additional hours or days per week on a particular public work project. There are very few exceptions to this rule. Complete information regarding these exceptions is available on the "[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.state.ny.us.

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.state.ny.us.

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.state.ny.us.

Payrolls and Payroll Records

Every contractor and subcontractor MUST keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. Payrolls must be maintained for at least Five (5) years from the project's date of completion. [See Spota Bill Notice](#). At a minimum, payrolls must show the following information for each person employed on a public work project: Name, Address, Last 4 Digits of Social Security Number, Classification(s) in which the worker was employed, Hourly wage rate(s) paid, Supplements paid or provided, and Daily and weekly number of hours worked in each classification.

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

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

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

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

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

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

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

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

Withholding of Payments

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

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

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

Summary of Notice Posting Requirements

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

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

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

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

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

Apprentices

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

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

Persons wishing to verify the apprentice registration of any person must do so in writing by mail, to the NYSDOL Office of Employability Development / Apprenticeship Training, State Office Bldg. Campus, Bldg. 12, Albany, NY 12240 or by Fax to NYSDOL Apprenticeship Training (518) 457-7154. All requests for verification must include the name and social security number of the person for whom the information is requested.

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

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

Interest and Penalties

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

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

Debarment

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

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

Criminal Sanctions

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

Discrimination

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

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

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

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

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

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

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

Workers' Compensation

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

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

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

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

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

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

Unemployment Insurance

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



Andrew M. Cuomo, Governor

Roberta Reardon, Commissioner

Montgomery County San District
Douglas Cole, Project Engineer
Prime Engineering
7 South Church Street
Schenectady NY 12305

Schedule Year 2017 through 2018
Date Requested 06/16/2017
PRC# 2017006404

Location MCSD#1 WWTP
Project ID# 42-1702
Project Type Clarifier rehabilitation and leachate piping work

Notice of Contract Award

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

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

Contractor Information

All information must be supplied

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

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

IMPORTANT NOTICE

FOR

CONTRACTORS & CONTRACTING AGENCIES

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' concerns with regard to 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.*

NOTE: This change does not affect the Department's ability to request and receive the entire social security number from employers during the course of its public work / prevailing wage investigations.

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

Budget Policy & Reporting Manual

B-610

Public Work Enforcement Fund

effective date December 7, 2005

1. Purpose and Scope:

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

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

2. Background and Statutory References:

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

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

3. Procedures and Agency Responsibilities:

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

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

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

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

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

Reports should contain the following information:

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

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

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

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.

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.state.ny.us .



New York State Department of Labor
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 such as
 - unemployment benefits, if 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 required by New York State and Federal Law.

Penalties for paying 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, 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 1(866)435-1499 or send an email to dol.misclassified@labor.state.ny.us. All complaints of fraud and violations are taken seriously and you can remain anonymous.

Employer Name:

WORKER NOTIFICATION

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

Effective February 24, 2008

This provision is an addition to the existing prevailing 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 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 particular job classification. The required notification will be provided with each wage schedule, may be downloaded from our website www.labor.state.ny.us or made available upon request by contacting the Bureau of Public Work at 518-457-5589.

* In the event that the required information will not fit on the pay stub, an accompanying sheet or attachment of the information will suffice.

Attention Employees

THIS IS A: PUBLIC WORK PROJECT

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

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) 258-4505
Buffalo	(716) 847-7159	Syracuse	(315) 428-4056
Garden City	(516) 228-3915	Utica	(315) 793-2314
New York City	(212) 932-2419	White Plains	(914) 997-9507
Newburgh	(845) 568-5156		

* 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: _____

OSHA 10-hour Construction Safety and Health Course – S1537-A

Effective July 18, 2008

This provision is an addition to the existing prevailing wage rate law, Labor Law §220, section 220-h. It requires that on all public work projects of at least \$250,000.00, all laborers, workers and mechanics working on the site, be certified as having successfully completed the OSHA 10-hour construction safety and health course. It further requires that the advertised bids and contracts for every public work contract of at least \$250,000.00, contain a provision of this requirement.

NOTE: The OSHA 10 Legislation only applies to workers on a public work project that are required, under Article 8, to receive the prevailing wage.

Where to find OSHA 10-hour Construction Course

1. NYS Department of Labor website for scheduled outreach training at:

www.labor.state.ny.us/workerprotection/safetyhealth/DOSH_ONSITE_CONSULTATION.shtm

2. OSHA Training Institute Education Centers:

Rochester Institute of Technology OSHA Education Center

Rochester, NY

Donna Winter

Fax (585) 475-6292

e-mail: dlwtpo@rit.edu

(866) 385-7470 Ext. 2919

www.rit.edu/~outreach/course.php3?CourseID=54

Atlantic OSHA Training Center

UMDNJ – School of Public Health

Piscataway, NJ

Janet Crooks

Fax (732) 235-9460

e-mail: crooksje@umdnj.edu

(732) 235-9455

<https://ophp.umdnj.edu/wconnect/ShowSchedule.awp?~~GROUP~AOTCON~10~>

Atlantic OSHA Training Center

University at Buffalo

Buffalo, New York

Joe Syracuse

Fax (716) 829-2806

e-mail: mailto:japs@buffalo.edu

(716) 829-2125

http://www.smbs.buffalo.edu/CENTERS/trc/schedule_OSHA.php

Keene State College

Manchester, NH

Leslie Singleton

e-mail: lsingletin@keene.edu

(800) 449-6742

www.keene.edu/courses/print/courses_osh.cfm

3. List of trainers and training schedules for OSHA outreach training at:

www.OutreachTrainers.org

Requirements for OSHA 10 Compliance

Chapter 282 of the Laws of 2007, codified as Labor Law 220-h took effect on July 18, 2008. The statute provides as follows:

The advertised specifications for every contract for public work of \$250,000.00 or more 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 of 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 518-485-5696.

WICKS Reform 2008

(For all contracts advertised or solicited for bid on or after 7/1/08)

- Raises the threshold for public work projects subject to the Wicks Law requiring separate specifications and bidding for the plumbing, heating and electrical work. The total project's threshold would increase from \$50,000 to: \$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 work 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 use of a Project Labor Agreement (PLA), and must be open to public inspection.
- Allows the state and local agencies and authorities to waive the Wicks Law and use a PLA if it will provide the best work at the lowest possible price. If a PLA is used, all contractors shall participate in apprentice training programs in the trades of work it employs that have been approved by the Department of Labor (DOL) for not less than three years. They shall also have at least one graduate in the last three years and use affirmative efforts to retain minority apprentices. PLA's would be exempt from Wicks, but deemed to be public work subject to prevailing wage enforcement.
- The Commissioner of Labor shall have the power to enforce separate specification requirements on projects, and may issue stop-bid orders against public owners for non-compliance.
- Other new monetary thresholds, and similar sealed bidding for non-Wicks projects, would apply to certain public authorities including municipal housing authorities, NYC Construction Fund, Yonkers Educational Construction Fund, NYC Municipal Water Finance Authority, Buffalo Municipal Water Finance Authority, Westchester County Health Care Association, Nassau County Health Care Corp., Clifton-Fine Health Care Corp., Erie County Medical Center Corp., NYC Solid Waste Management Facilities, and the Dormitory Authority.
- Reduces from 15 to 7 days the period in which contractors must pay subcontractors.

IMPORTANT INFORMATION

**Regarding Use of Form PW30.1
(Previously 30R)**

“Employer Registration for Use of 4 Day / 10 Hour Work Schedule”

To use the ‘4 Day / 10 Hour Work Schedule’:

There **MUST** be a *Dispensation of Hours (PW30)* in place on the project

AND

You **MUST** register your intent to work 4 / 10 hour days, by completing the PW30.1 Form.

REMEMBER...

The ‘4 Day / 10 Hour Work Schedule’ applies **ONLY** to Job Classifications and Counties listed on the PW30.1 Form.

Do not write in any additional Classifications or Counties.

(Please note : For each Job Classification check the individual wage schedule for specific details regarding their 4/10 hour day posting.)

Instructions for Completing Form PW30.1

(Previously 30R)

“Employer Registration for Use of 4 Day / 10 Hour Work Schedule”

Before completing Form PW30.1 check to be sure ...

- There is a *Dispensation of Hours* in place on the project.
- The 4 Day / 10 Hour Work Schedule applies to the Job Classifications you will be using.
- The 4 Day / 10 Hour Work Schedule applies to the County / Counties where the work will take place.

Instructions (Type or Print legibly):

Contractor Information:

- Enter the Legal Name of the business, FEIN, Street Address, City, State, Zip Code; the Company’s Phone and Fax numbers; and the Company’s email address (if applicable)
- Enter the Name of a Contact Person for the Company along with their Phone and Fax numbers, and the personal email address (if applicable)

Project Information:

- Enter the Prevailing Rate Case number (PRC#) assigned to this project
- Enter the Project Name / Type (i.e. Smithtown CSD – Replacement of HS Roof)
- Enter the Exact Location of Project (i.e. Smithtown HS, 143 County Route #2, Smithtown, NY; Bldgs. 1 & 2)
- If you are a Subcontractor, enter the name of the Prime Contractor for which you work
- On the Checklist of Job Classifications -
 - Go to pages 2 and 3 of the form
 - Place a checkmark in the box to the right of the Job Classification you are choosing
 - Mark all Job Classifications that apply

****Do not write in any additional Classifications or Counties.****

Requestor Information:

- Enter the name of the person submitting the registration, their title with the company , and the date the registration is filled out

Return Completed Form:

- **Mail** the completed PW30.1 form to: NYSDOL Bureau of Public Work, SOBC – Bldg.12 – Rm.130, Albany, NY 12240 **-OR-**
- **Fax** the completed PW30.1 form to: NYSDOL Bureau of Public Work at (518)485-1870



Bureau of Public Work Harriman
State Office Campus
Building 12, Room 130
Albany, New York 12240
Phone: (518) 457-5589 | Fax: (518) 485-1870
www.labor.ny.gov

Employer Registration for Use of 4 Day / 10 Hour Work Schedule

Before completing this form, make sure that:

- There is a **Dispensation of Hours** in place on the project.
- The 4 Day / 10 Hour Work Schedule applies to the Job Classifications you will be using.
- The 4 Day / 10 Hour Work Schedule applies to the County / Counties where the work will take place.

Please **type or print** the requested information and then **mail or fax** to the address above.

Contractor Information

Company Name: _____ FEIN: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone No: _____ Fax No: _____ Email: _____

Contact Person: _____

Phone No: _____ Fax No: _____ Email: _____

Project Information

Project PRC#: _____ Project Name/Type: _____

Exact Location
of Project: _____ County: _____

(If you are Subcontractor)

Prime Contractor Name: _____

Job Classification(s) to Work 4/10 Schedule: *(Choose all that apply on Job Classification Checklist - Pages 3-8)*
**** Do not write in any additional Classifications or Counties****

Requestor Information

Name: _____

Title: _____ Date: _____

Please use the list below with the number assigned to each county as a reference to the corresponding numbers listed in the following pages under **Entire Counties & Partial Counties**.

- | | | | |
|-----|-----------------------------|-----|---------------------------------|
| 1. | Albany County | 33. | Oneida County |
| 2. | Allegany County | 34. | Onondaga County |
| 3. | Bronx County | 35. | Ontario County |
| 4. | Broome County | 36. | Orange County |
| 5. | Cattaraugus County | 37. | Orleans County |
| 6. | Cayuga County | 38. | Oswego County |
| 7. | Chautauqua County | 39. | Otsego County |
| 8. | Chemung County | 40. | Putnam County |
| 9. | Chenango County | 41. | Queens County |
| 10. | Clinton County | 42. | Rensselaer County |
| 11. | Columbia County | 43. | Richmond County (Staten Island) |
| 12. | Cortland County | 44. | Rockland County |
| 13. | Delaware County | 45. | Saint Lawrence County |
| 14. | Dutchess County | 46. | Saratoga County |
| 15. | Erie County | 47. | Schenectady County |
| 16. | Essex County | 48. | Schoharie County |
| 17. | Franklin County | 49. | Schuyler County |
| 18. | Fulton County | 50. | Seneca County |
| 19. | Genesee County | 51. | Steuben County |
| 20. | Greene County | 52. | Suffolk County |
| 21. | Hamilton County | 53. | Sullivan County |
| 22. | Herkimer County | 54. | Tioga County |
| 23. | Jefferson County | 55. | Tompkins County |
| 24. | Kings County (Brooklyn) | 56. | Ulster County |
| 25. | Lewis County | 57. | Warren County |
| 26. | Livingston County | 58. | Washington County |
| 27. | Madison County | 59. | Wayne County |
| 28. | Monroe County | 60. | Westchester County |
| 29. | Montgomery County | 61. | Wyoming County |
| 30. | Nassau County | 62. | Yates County |
| 31. | New York County (Manhattan) | | |
| 32. | Niagara County | | |

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

**** Do not write in any additional Classifications or Counties****

Job Classification	Tag #	Entire Counties	Partial Counties	Check Box
Carpenter – Building	276B-All	7	2, 5	
Carpenter – Building	276B-Cat	15	5	
Carpenter – Building	276-B-LIV	26, 28, 35, 59	61	
Carpenter – Building	276B-Gen	19, 32, 37	61	
Carpenter – Heavy & Highway	276HH-All	2, 5, 7		
Carpenter – Heavy & Highway	276HH-Erie	15		
Carpenter – Heavy & Highway	276HH- Gen	19, 32, 37, 61		
Carpenter – Heavy & Highway	276HH-Liv	26, 28, 35, 59		
Carpenter – Residential	276R-All	7	2, 5	
Carpenter – Building	277B-Bro	4, 54		
Carpenter – Building	277B-CAY	6, 50, 62		
Carpenter – Building	277B-CS	8, 12, 49, 51, 55	2	
Carpenter – Building	277 JLS	23, 25, 45		
Carpenter – Building	277 omh	22, 27, 33		
Carpenter – Building	277 On	34		
Carpenter – Building	277 Os	38		
Carpenter – Building	277CDO Bldg	9, 13, 39		
Carpenter – Heavy & Highway	277CDO HH	9, 13, 39		
Carpenter – Heavy & Highway	277HH-BRO	4, 6, 8, 12, ,22, 23, 25, 27, 33, 34, 38, 45, 49, 50, 51, 54, 55, 62		
Carpenter – Building	291B-Alb	1, 18, 20, 29, 42, 47, 48		
Carpenter – Building	291B-Cli	10, 16, 17		
Carpenter – Building	291B-Ham	21, 57, 58		
Carpenter – Building	291B-Sar	46		
Carpenter – Heavy & Highway	291HH-Alb	1, 10, 16, 17,18, 20, 21, 29, 42, 46, 47, 48, 57, 58		
Electrician	25m	30, 52		
Electrician – Teledata Cable Splicer	43	12, 22, 27, 33, 38	6, 9, 34, 39, 55, 59	

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

**** Do not write in any additional Classifications or Counties****

Job Classification	Tag #	Entire Counties	Partial Counties	Check Box
Electrician	86	26, 28	19, 35, 37, 59, 61	
Electrician	840 Teledata and 840 Z1	62	6, 34, 35, 50, 59	
Electrician	910	10, 16, 17, 23, 25, 45		
Electrical Lineman	1049Line/Gas	30, 41, 52		
Electrical Lineman	1249a	1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42, 44, 46, 47, 48, 49, 50, 45, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62		
Electrical Lineman	1249a West	60		
Electrical Lineman	1249a-LT	1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 32, 33, 34, 35, 37, 38, 39, 42, 46, 47, 48, 49, 50, 45, 51, 53, 54, 55, 57, 58, 59, 61, 62		
Electrical Lineman	1249aREG8LT	11, 14, 36, 40, 44, 56		
Electrical Lineman	1249aWestLT	60		
Elevator Constructor	138	11, 14, 20, 36, 40, 53, 56	13, 44, 60	
Elevator Constructor	14	2, 5, 7, 15, 19, 32, 37, 61		
Elevator Constructor	27	8, 26, 28, 35, 49, 50, 51, 59, 62		
Elevator Constructor	35	1, 10, 16, 18, 21, 22, 29, 39, 42, 46, 47, 48, 57, 58		
Elevator Constructor	62.1	4, 6, 9, 12, 23, 25, 27, 33, 34, 38, 45, 54, 55	13	
Glazier	201	1, 10, 11, 16, 17, 18, 20, 21, 29, 42, 46, 47, 48, 57, 58		
Glazier	660r	2, 5, 7, 15, 19, 32, 37, 61		
Glazier	660	2, 5, 7, 15, 19, 32, 37, 61		
Glazier	677.1	23, 25, 26, 28, 35, 45, 50, 59, 62		
Glazier	677Z-2	6, 12, 22, 27, 33, 34, 38		
Glazier	677z3	4, 8, 9, 13, 39, 49, 51, 54, 55		
Glazier	677r.2	6, 12, 22, 27, 33, 34, 38		
Insulator – Heat & Frost	30-Syracuse	4, 6, 8, 9, 12, 22, 23, 25, 27, 33, 34, 38, 39, 49, 50, 45, 54, 55		
Laborer – Building	621b	2, 7	5	
Laborer – Building	633 bON	34		

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

*** Do not write in any additional Classifications or Counties***

Job Classification	Tag #	Entire Counties	Partial Counties	Check Box
Laborer – Building	633b Cay	6		
Laborer – Building	633bOS	38		
Laborer – Building	785(7)	4	9, 13, 54	
Laborer – Building	785B-CS	8, 51	49	
Laborer – Building	7-785b	12, 55	49, 54	
Laborers – Heavy & Highway	157h/h	47	18, 29, 46	
Laborers – Heavy & Highway	190 h/h	1, 42, 58	11, 20, 46	
Laborers – Heavy & Highway	35/2h	21, 22, 27, 33	18, 29	
Laborer – Residential	621r	2, 7	5	
Laborers – Tunnel	157	47	18, 29, 46	
Laborers – Tunnel	35T	21, 22, 27, 33	18, 29	
Laborers – Tunnel	190	1, 42, 58	11, 20, 46	
Mason – Building	2TS.1	1, 10, 11, 16, 17, 18, 20, 21, 29, 42, 46, 47, 48, 57, 58		
Mason – Building	2TS.2	22, 23, 25, 33, 45	27	
Mason – Building	2TS.3	6, 34, 38	27	
Mason – Building	2b-on	34		
Mason – Building	2b.1	1, 11, 18, 20, 21, 29, 42, 46, 47, 48, 58	57	
Mason – Building	2b.2	22, 33	25	
Mason – Building	2b.3	6, 34	27	
Mason – Building	2b.4	38		
Mason – Building	2b.5	23	25	
Mason – Building	2b.6	45		
Mason – Building	2b.8	10, 16, 17	57	
Mason – Building	3b-Co-Z2	8, 49, 51	2	
Mason – Building	3B-Z1	19, 26, 28, 35, 50, 59, 61, 62		
Mason – Building – Residential	3B-Z1R	19, 26, 28, 35, 50, 59, 61, 62		
Mason – Building	3B-Bing-Z2	4, 9, 13, 39, 54		
Mason – Building	3B-lth-Z2	12, 55		

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

*** Do not write in any additional Classifications or Counties***

Job Classification	Tag #	Entire Counties	Partial Counties	Check Box
Mason – Building	3B-Jam-Z2	7	2, 5	
Mason – Building – Residential	3B-Jam-Z2R	2, 4, 8, 7, 9, 12, 39, 13, 49, 51, 54, 55	5	
Mason – Building	3B-Z3	15, 32	5	
Mason – Building	3B-Z3.Orleans	37		
Mason – Residential	3B-Z3R	15, 32	5	
Mason – Residential	3B-z3R.Orleans	37		
Mason - Heavy & Highway	3h	2, 4, 8, 7, 9, 12, 13, 19, 26, 28, 35, 37, 39, 49, 50, 51, 54, 55, 59, 61, 62	5, 15, 32	
Mason – Tile Finisher	3TF-Z1	19, 26, 28, 35, 50, 59, 61, 62		
Mason – Tile Finisher	3TF-Z2	2, 4, 8, 7, 9, 12, 13, 39, 49, 51, 54, 55	5	
Mason – Tile Finisher	3TF-Z3	15, 32, 37	5	
Mason – Tile Finisher	3TF-Z1R	19, 26, 28, 35, 50, 59, 61, 62		
Mason – Tile Finisher	3TF-Z2R	2, 4, 7, 9, 12, 13, 39, 49, 51, 54, 55	5	
Mason – Tile Finisher	3TF-Z3R	15, 32, 37	5	
Mason – Tile Setter	3TS-Z1	19, 26, 28, 35, 50, 59, 61, 62		
Mason – Tile Setter Residential	3TS-Z1R	19, 26, 28, 35, 50, 59, 61, 62		
Mason – Tile Setter	3TS-Z2	2, 4, 7, 8, 9, 12, 13, 39, 49, 51, 54, 55	5	
Mason – Tile Setter Residential	3TS-Z2R	2, 4, 7, 8, 9, 12, 13, 39, 49, 51, 54, 55	5	
Mason – Tile Setter	3TS-Z3	15, 32, 37	5	
Mason – Tile Setter Residential	3TS-Z3R	15, 32, 37	5	
Mason – Building/Heavy & Highway	780	3, 24, 30, 31, 41, 43, 52		
Operating Engineer - Heavy & Highway	137H/H	40, 60	14	
Operating Engineer – Heavy & Highway	158-832H	2, 8, 26, 28, 35, 49, 51, 59, 62	19	
Operating Engineer – Heavy & Highway	158-H/H	1, 4, 9, 10, 11, 14, 16, 17, 18, 20, 21, 22, 29, 39, 42, 46, 47, 48, 54, 57, 58		
Operating Engineer – Heavy & Highway	158-545h	6, 12, 23, 25, 27, 33, 38, 45, 50, 55		
Painter	1456-LS	1, 3, 10, 11, 14, 16, 17, 18, 20, 21, 24, 29, 30, 31, 36, 40, 41, 42, 43, 44, 46, 47, 48, 52, 53, 56, 57, 58, 60		
Painter	150	28, 59, 62	26, 35	

Job Classification Checklist

(Place a checkmark by all classifications that will be using the 4/10 schedule)

**** Do not write in any additional Classifications or Counties****

Job Classification	Tag #	Entire Counties	Partial Counties	Check Box
Painter	178 B	4, 9, 54		
Painter	178 E	8, 49	51	
Painter	178 I	12, 55		
Painter	178 O	13, 39		
Painter	31	6, 22, 27, 33, 34, 50	25, 35, 38	
Painter	38.O		38	
Painter	38.W	23, 45	25	
Painter	4- Buf,Nia,Olean	2, 15, 19, 32, 37, 61	5, 7, 26, 51	
Painter	4-Jamestown		5, 7	
Sheetmetal Worker	46	26, 28, 35, 50, 59, 62		
Sheetmetal Worker	46r	26, 28, 35, 50, 59, 62		
Teamsters – Heavy & Highway	294h/h	1, 11, 18, 20, 29, 42, 46, 47, 48, 58	57	
Teamsters – Heavy & Highway	317bhh	6, 12, 50, 51, 55, 62	2	
Teamsters - Building/Heavy & Highway	456	40, 60		

Introduction to the Prevailing Rate Schedule

Information About Prevailing Rate Schedule

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

Classification

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

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

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

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

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

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. In most cases the payment or provision of supplements is for each hour worked (noted in the schedule as 'Per hour worked'). Some classifications require the payment or provision of supplements for each hour paid (noted in the schedule as 'Per hour paid'), which require supplements to be paid or provided at a premium rate for premium hours worked. Some classifications may also require the payment or provision of supplements for paid holidays on which no work is performed.

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.state.ny.us) for current wage rate information.

Apprentice Training Ratios

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

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

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

Title (Trade)	Ratio
Boilermaker (Construction)	1:1,1:4
Boilermaker (Shop)	1:1,1:3
Carpenter (Bldg.,H&H, Pile Driver/Dockbuilder)	1:1,1:4
Carpenter (Residential)	1:1,1:3

Electrical (Outside) Lineman	1:1,1:2
Electrician (Inside)	1:1,1:3
Elevator/Escalator Construction & Modernizer	1:1,1:2
Glazier	1:1,1:3
Insulation & Asbestos Worker	1:1,1:3
Iron Worker	1:1,1:4
Laborer	1:1,1:3
Mason	1:1,1:4
Millwright	1:1,1:4
Op Engineer	1:1,1:5
Painter	1:1,1:3
Plumber & Steamfitter	1:1,1:3
Roofer	1:1,1:2
Sheet Metal Worker	1:1,1:3
Sprinkler Fitter	1:1,1:2

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

New York State Department of Labor
Bureau of Public Work
State Office Campus, Bldg. 12
Albany, NY 12240

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

Montgomery County General Construction

Boilermaker **12/01/2017**

JOB DESCRIPTION Boilermaker **DISTRICT 1**

ENTIRE COUNTIES

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

WAGES

Per hour
 07/01/2017

Boilermaker \$ 34.54

SUPPLEMENTAL BENEFITS

Per hour worked

Journeymen \$ 24.03*
 + 1.24

* This portion of the benefit is subject to the SAME PREMIUM as shown for overtime.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

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

REGISTERED APPRENTICES

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

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

Supplemental Benefits per hour worked

1st	2nd	3rd	4th	5th	6th	7th	8th
18.11*	18.11*	18.97*	19.81*	20.65*	21.49*	22.34*	23.19*
+1.24	+1.24	+1.24	+1.24	+1.24	+1.24	+1.24	+1.24

* This portion of the benefit is subject to the SAME PREMIUM as shown for overtime.

1-197

Carpenter - Building **12/01/2017**

JOB DESCRIPTION Carpenter - Building **DISTRICT 2**

ENTIRE COUNTIES

Albany, Fulton, Greene, Montgomery, Rensselaer, Schenectady, Schoharie

WAGES

Per hour:	07/01/2017	01/01/2018	07/01/2018	07/01/2019
		Additional	Additional	Additional
Carpenter	\$ 30.68	\$ 0.50	\$ 1.10	\$ 1.10
Floor Coverer	30.68	0.50	1.10	1.10
Carpet Layer	30.68	0.50	1.10	1.10
Dry-Wall	30.68	0.50	1.10	1.10
Lather	30.68	0.50	1.10	1.10
Diver-Wet Day	61.25	0.00	0.00	0.00
Diver -Dry Day	31.68	0.50	1.10	1.10
Diver Tender	31.68	0.50	1.10	1.10

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (not subject to overtime premiums):

- Pile Drivers shall receive \$0.25 per hour over the journeyman's rate of pay when performing piling 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:
 - 0' to 80' no additional fee
 - 81'to 100' additional \$.50 per foot
 - 101'to 150' additional \$0.75 per foot
 - 151'and deeper additional \$1.25 per foot
- Penetration pay for Divers based upon deepest penetration on the day of the dive:
 - 0' to 50' no additional fee
 - 51' to 100' additional \$.75 per foot
 - 101' and deeper additional \$1.00 per foot

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:

Journeyman \$ 20.34

OVERTIME PAY

See (B, E, *E2, Q) on OVERTIME PAGE

* Note - Saturday is payable at straight time if the employee misses work, except where a doctor's or hospital verification of illness is produced Monday through Friday when work was available to the employee.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: Any holiday which occurs on Sunday shall be observed the following Monday. If Christmas falls on a Saturday, it shall be observed on the prior Friday.

REGISTERED APPRENTICES

Wages per hour

FOR APPRENTICES INDENTURED PRIOR TO JANUARY 1, 2016

One year terms at the following percentage of Journeyman's base wage

1st	2nd	3rd	4th
50%	60%	70%	80%

Supplemental Benefits per hour worked plus paid holidays:

1st year term	\$ 10.91
2nd year term	10.91
3rd year term	13.51
4th year term	13.51

FOR APPRENTICES INDENTURED AFTER JANUARY 1, 2016

1,300 hour terms at the following percentage of Journeyman's base wage

1st	2nd	3rd	4th	5th
50%	60%	65%	70%	80%

Supplemental Benefits per hour worked plus paid holidays:

1st term	\$ 10.91
2nd term	10.91
3rd term	13.51
4th term	13.51
5th term	13.51

ADDITIONAL AMOUNTS PAID TO APPRENTICES FOR SPECIFIC TYPES OF WORK PERFORMED (not subject to overtime premiums):

- Pile Driving apprentices shall receive \$0.25 per hour when performing piledriving work.
- Certified welders shall receive \$1.00 per hour over the apprentices rate of pay when the apprentice is required to be certified and performs DOT or ABS specified welding work
- When an apprentice performs work within a contaminated area on a State and/or Federally designated hazardous waste site, and where relevant State and/or Federal regulations require the apprentice to be furnished and use or wear required forms of personal protection, then the apprentice shall receive his regular hourly rate plus \$1.50 per hour.

2-291B-Alb

JOB DESCRIPTION Carpenter - Building / Heavy&Highway

DISTRICT 2

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

PARTIAL COUNTIES

Orange: The area lying on Northern side of Orange County demarcated by a line drawn from the Bear Mountain Bridge continuing east to the Bear Mountain Circle, continue North on 9W to the town of Cornwall where County Road 107 (also known as Quaker Rd) crosses under 9W, then east on County Road 107 to Route 32, then north on Route 32 to Orrs Mills Rd, then west on Orrs Mills Rd to Route 94, continue west and south on Route 94 to the Town of Chester, to the intersection of Kings Highway, continue south on Kings Highway to Bellvale Rd, west on Bellvale Rd to Bellvale Lakes Rd, then south on Bellvale Lakes Rd to Kain Rd, southeast on Kain Rd to Route 17A, then north and southeast along Route 17A to Route 210, then follow Route 210 to NJ Border.

WAGES

Wages per hour:

	07/01/2017	07/01/2018
Carpenter - ONLY for		Additional
Artificial Turf/Synthetic		
Sport Surface	\$ 29.88	\$ 1.50

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

SUPPLEMENTAL BENEFITS

Per hour worked plus paid holidays:

Journeyman \$ 21.45

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (2, 17) on HOLIDAY PAGE
 Overtime: See (5, 6, 16) on HOLIDAY PAGE

Notes:

When a holiday falls upon a Saturday, it shall be observed on the preceding Friday. When a holiday falls upon a Sunday, it shall be observed on the following Monday.

An employee taking an unexcused day off the regularly scheduled day before or after a paid Holiday shall not receive Holiday pay.

REGISTERED APPRENTICES

Wages per hour:

One year terms at the following percentage of Journeyman's wage:

1st	2nd	3rd	4th
50%	60%	70%	80%

Supplemental Benefits per hour worked plus paid holidays:

1st year term	\$ 11.00
2nd year term	11.00
3rd year term	13.60
4th year term	13.60

2-42AtSS

Carpenter - Heavy&Highway

12/01/2017

JOB DESCRIPTION Carpenter - Heavy&Highway

DISTRICT 2

ENTIRE COUNTIES

Albany, Clinton, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour

	07/01/2017	07/01/2018
Carpenter	\$ 30.78	\$ 1.50
Piledriver	30.78	1.50
Diver-Wet Day	55.78	1.50
Diver-Dry Day	31.78	1.50
Diver-Tender	31.78	1.50

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (not subject to overtime premiums):

- When Millwright work is performed, the employee will receive an additional \$1.50 per hour for all hours worked on the day the millwright work was performed.

- When project owner 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.
- Depth pay for Divers based upon deepest depth on the day of the dive:
 - 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:
 - 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 worked plus paid holidays:

Journeyman \$ 20.55

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (2, 17) 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.

REGISTERED APPRENTICES

Wages per hour

FOR APPRENTICES INDENTURED PRIOR TO JANUARY 1, 2016

One year terms at the following percentage of Journeyman's base wage

1st	2nd	3rd	4th
50%	60%	70%	80%

Supplemental Benefits per hour worked plus paid holidays:

1st year term	\$ 10.87
2nd year term	10.87
3rd year term	13.47
4th year term	13.47

FOR APPRENTICES INDENTURED AFTER JANUARY 1, 2016

1,300 hour terms at the following percentage of Journeyman's base wage

1st	2nd	3rd	4th	5th
50%	60%	65%	70%	80%

Supplemental Benefits per hour worked plus paid holidays:

1st term	\$ 10.87
2nd term	10.87
3rd term	13.47
4th term	13.47
5th term	13.47

NOTE ADDITIONAL AMOUNTS PAID TO APPRENTICES FOR THE FOLLOWING WORK LISTED BELOW (not subject to overtime premiums):

- When Millwright work is performed, the employee will receive an additional \$1.50 per hour for all hours worked on the day the millwright work was performed.

- When project owner 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.

2-291HH-Alb

Electrician

12/01/2017

JOB DESCRIPTION Electrician

DISTRICT 1

ENTIRE COUNTIES

Albany, Columbia, Fulton, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, 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 Delaware County.
 Otsego: Only the Towns of Decatur and Worcester

WAGES

Per hour

07/01/2017

Electrician	\$ 37.75
Audio/Sound	37.75
Video	37.75
Tele-Data	37.75

Notes: An additional 5% above rate for work over 30' above floor when working on tooth picks, structural steel, temporary platforms, swing scaffolds & boatswain 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(Pb) cable splicers.

An additional 10% above rate when Journeymen Welders are required to have ASME verification.

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 24.67
	+3% of wage

OVERTIME PAY

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

* DOUBLE TIME AFTER 10 HOURS ON SATURDAY

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 12:30 AM	REGULAR RATE PLUS 10%
3rd Shift	12:30 AM to 8:00 AM	REGULAR RATE PLUS 15%

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.

6mo	1st yr	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 when working on tooth picks, structural steel, temporary platforms, swing scaffolds & boatswain 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

1st term	\$ 11.76*
2nd term	11.76*
All others	24.67*

*Plus additional 3% of wage

1-236

Elevator Constructor

12/01/2017

JOB DESCRIPTION Elevator Constructor

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Essex, Fulton, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES

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

	07/01/2017	01/01/2018	01/01/2019
Mechanic	\$ 43.24	\$ 45.40	\$ 47.56
Helper	70% of Mechanic Wage Rate	70% of Mechanic Wage Rate	70% of Mechanic Wage Rate

**** IMPORTANT NOTICE - EFFECTIVE 04/01/2009 ****

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday or Tuesday 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 worked

	07/01/2017	01/01/2018	01/01/2019
Journeyman/Helper	\$ 31.585*	\$ 32.705*	\$ 33.825*

(*)Plus 6% of regular hourly rate.

OVERTIME PAY

See (D, O) on OVERTIME PAGE

HOLIDAY

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

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

Note: When a 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*

50%

*No supplemental benefits

6-12 mo	2nd yr	3rd yr	4th yr
55 %	65 %	70 %	80 %

Supplemental Benefits per hour worked

Same as Journeyman/Helper

1-35

Glazier

12/01/2017

JOB DESCRIPTION Glazier

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour	07/01/2017	05/01/2018 Additional
Glazier base wage	\$ 27.05	\$ 1.50
	+ additional \$2.00 per hour for all hours worked	
*High Work Base Wage	30.50	
	+ additional \$3.52 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 worked	
Journeyman	\$ 19.11
Journeyman High Work	23.94

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE
 Premium is applied to the respective base wage only.

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 One Half Year (750 hr) terms at the following percentage of Journeyman's base wage.

1st	2nd	3rd	4th	5th	6th	7th	8th
35%	45%	55%	65%	75%	85%	90%	95%
+ additional \$2.00 per hour for all hours worked for all terms							

Apprentice Glazier Hi-Work One Half Year (750 hr) terms at the following percentage of Journeyman's Hi-Work base wage.

1st	2nd	3rd	4th	5th	6th	7th	8th
35%	45%	55%	65%	75%	85%	90%	95%
+ additional \$3.52 per hour for all hours worked for all terms							

Supplemental Benefits per hour worked

Apprentice	
1st-4th term	\$ 15.64
5th-8th term	19.11
Apprentice High Work	
1st-4th term	\$ 17.94
5th-8th term	23.94

Insulator - Heat & Frost

12/01/2017

JOB DESCRIPTION Insulator - Heat & Frost

DISTRICT 1

ENTIRE COUNTIES

Albany, Columbia, Delaware, Essex, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Sullivan, Ulster, Warren, Washington

WAGES

Wages per hour	07/01/2017	05/01/2018 Additional
Asbestos Worker*	\$ 34.10	\$ 1.25
Insulator*	34.10	
Firestopping Worker*	28.99	

(*)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 worked

Journeyman \$ 21.49

OVERTIME PAY

See (*B1, **Q) on OVERTIME PAGE

*B1=Double 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 Journeyman's wage.

1st	2nd	3rd	4th
60 %	70 %	80 %	90 %

Supplemental Benefits per hour worked:

Apprentices \$ 21.49

1-40

Ironworker

12/01/2017

JOB DESCRIPTION Ironworker

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Delaware, Essex, Greene, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES

Fulton: Only the Townships of Broadalbin, Mayfield, Northampton, Bleecker and Johnstown.

Hamilton: Only the Townships of Hope, Benson and Wells.

Montgomery: Only the Townships of Florida, Amsterdam, Charleston, Glen, Mohawk and Root.

Otsego: Only the Towns of Unadilla, Butternuts, Morris, Otego, Oneonta, Laurens, Millford, Maryland and Worcester.

WAGES

Wages 07/01/2017
 Per hour

Ornamental	\$ 30.50
Reinforcing	30.50
Rodman	30.50
Structural & Precast	30.50
Mover/Rigger	30.50
Fence Erector	30.50
Stone Derrickman	30.50
Sheeter	30.75
Curtain Wall Installer	30.50
Metal Window Installer	30.50

SUPPLEMENTAL BENEFITS

Per hour worked

JOURNEYMAN \$ 27.36

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

Note: Any holiday which occurs on Sunday shall be observed the following Monday.

REGISTERED APPRENTICES

Wages per hour

ONE YEAR TERMS AT THE FOLLOWING WAGE RATES:

	07/01/2017
1st year	\$ 16.50
2nd year	18.50
3rd year	20.50
4th year	22.50
Supplemental Benefits per hour worked	
1st year	\$ 10.75
2nd year	21.28
3rd year	22.79
4th year	24.30

1-12

Ironworker

12/01/2017

JOB DESCRIPTION Ironworker

DISTRICT 7

ENTIRE COUNTIES

Franklin, Herkimer, Lewis, Oneida, St. Lawrence

PARTIAL COUNTIES

Chenango: Only the Townships of Columbus, New Berlin, North Norwich, Plymouth, Sherburne and Smyrna.

Fulton: Only the Townships of Caroga, Ephratah, Oppenheim, Strafford.

Hamilton: Only the Townships of Arietta, Indian Lake, Lake Pleasant, Long Lake and Morehouse.

Jefferson: Only the Townships of Antwerp, Champion, Philadelphia and Wilna.

Madison: Only the Townships of Brookfield, Eaton, Hamilton, Lebanon, Madison, Oneida and Stockbridge.

Montgomery: Only the Townships of Canajoharie, Minden, Palatine and St. Johnsville.

Otsego: Only the Townships of Burlington, Cherry Valley, Decatur, Edmeston, Exeter, Hartwick, Middlefield, New Lisbon, Otsego, Pittsfield, Plainfield, Richfield, Roseboom, Springfield and Westford, and Village of Cooperstown.

WAGES

Per hour 07/01/2017

Structural/Reinforcing	\$ 27.25
Mach. Mover/Ornamental	27.25
Stone Derrickman	27.25
Chain Link Fence	27.25
Sheeter Ironworker	27.25
Pre-Engineered Building	27.25
Window Erector	27.25
Precast Erector	27.25
Welder	27.25

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman \$ 26.69

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

NOTE: Any holiday which occurs on Sunday shall be observed the following Monday. Any holiday which occurs on Saturday shall be observed on the preceding Friday.

REGISTERED APPRENTICES

WAGES per hour: 1500 hour terms at the following wage.

1-1500	\$ 16.50
to 3000	18.50
to 4500	20.50

to 6000 22.50

SUPPLEMENTAL BENEFITS per hour:

1-1500	\$ 10.75
to 3000	17.76
to 4500	18.76
to 6000	19.76

7-440

Laborer - Building

12/01/2017

JOB DESCRIPTION Laborer - Building

DISTRICT 7

ENTIRE COUNTIES

Hamilton, Herkimer, Madison, Oneida

PARTIAL COUNTIES

Fulton: Only the Townships of Stratford, Caroga, Oppenheim and Ephrata.

Montgomery: Only the Townships of Minden, Palantine, Canajoharie, Root and St. Johnsville.

WAGES

GROUP #1: Basic

GROUP #2: Pipe Layer, Mortar Mixer, Walk behind Mortar Buggie and Power Lift

GROUP #3: Wagon Drill(Where separate air compressor unit supplies power.)

GROUP #4: Blaster, Formsetter, Riding Mortar Buggy

GROUP #5: Hazardous Waste Removal

GROUP #6: Asbestos and Lead Removal

WAGES per hour: 07/01/2017

Building Laborer:

Group # 1	\$ 22.50
Group # 2	22.65
Group # 3	22.90
Group # 4	23.00
Group # 5	24.00
Group # 6	24.00

SUPPLEMENTAL BENEFITS

Per hour worked:

All groups \$ 20.79

OVERTIME PAY

OVERTIME:... See (B,E,E2*,Q) on OVERTIME PAGE.

*When an employee has worked between 16 and 32 hours.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

(Hour) terms at the following percentage of Journeyman's wage.

to 1000	to 2000	to 4000
65%	70%	80%

Supplements per hour worked:

All Terms: Same as Journeyman

7-35

Laborer - Building

12/01/2017

JOB DESCRIPTION Laborer - Building

DISTRICT 1

ENTIRE COUNTIES

Schenectady, Schoharie

PARTIAL COUNTIES

Fulton: Only the Townships of Bleeker, Mayfield, Northampton, Johnstown,Broadalbin 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, Charlton, Ballston, Malta and Clifton Park.

WAGES

Per hour

07/01/2017

Group #1:

All Classifications
 except as noted in
 Groups 2 & 3 \$ 28.74

Group #2:

Blaster, Drilling equipment
 only where a separate air
 compressor unit supplies power,
 Metal formsetter (sidewalk),
 Well pointing & Laser
 operator \$ 29.24

Group #3:

Handling of Asbestos
 or Toxic Materials \$ 30.09

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman \$ 20.26

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 Journeyman's basic hourly wage.

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

Supplemental Benefits per hour worked

07/01/2017

Apprentices \$ 20.26

1-157

Laborer - Heavy&Highway

12/01/2017

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 7

ENTIRE COUNTIES

Hamilton, Herkimer, Madison, Oneida

PARTIAL COUNTIES

Fulton: Only the Townships of Stratford, Caroga, Oppenheim and Ephrata.
 Montgomery: Only the Townships of Minden, Palantine, Canajoharie, Root and St. Johnsville.

WAGES

GROUP # A: Basic, Drill Helper, Flagman, Outboard and Hand Boats.

GROUP # B: Bull Float, Chain Saw, Concrete Aggregate Bin, Concrete Bootmen, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer, Pavement Breaker, Handlers of all SteelMash, Small Generators for Laborers' Tools, Installation of Bridge Drainage Pipe, Pipe Layers, Vibrator Type Rollers, Tamper, Drill Doctor, Tail or Screw Operator on Asphalt Paver, Water Pump Operators(1-1/2" and Single Diaphragm), Nozzle (Asphalt, Gunite, Seeding, and Sand Blasting), Laborers on Chain Link Fence Erection, Rock Splitter and Power Unit, Pusher Type Concrete Saw and all other Gas, Electric, Oil and Air Tool Operators, Wrecking Laborer.

GROUP # C: Rock or Drilling Machine Operators (only where a separate air compressor unit supplies power), Acetylene Torch Operators, Asphalt Raker and Powderman.

GROUP # D: Blasters, Form Setters (prefab curb radius), Stone or Granite Curb Setters.

Per hour:	07/01/2017	07/01/2018
Heavy/Highway Laborer:		Additional
GROUP # A	\$ 28.05	\$ 1.85

GROUP # B	28.25	1.85
GROUP # C	28.45	1.85
GROUP # D	28.65	1.85

An additional \$2.00 to hourly rate when required to use or wear protective equipment on a Federal or State designated hazardous site.
Governmental mandated night work,(single irregular shift): Additional \$2.00/hr.

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: \$ 23.89

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

WAGES: Hour terms at the following percentage of Journeyman's wage.

to 1000	to 2000	to 4000
65%	70%	80%

SUPPLEMENTAL BENEFITS per hour worked:

All Terms: Same as Journeyman

7-35/2h

Laborer - Heavy&Highway

12/01/2017

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 1

ENTIRE COUNTIES

Schenectady, Schoharie

PARTIAL COUNTIES

Fulton: Only the Townships of Bleeker, Mayfield, Northampton, Johnstown,Broadalbin 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, Galaway, Northumberland, Milton, Saratoga Springs, Charlton, Ballston, Malta and Clifton Park

WAGES

GROUP # A:

Basic, Drill Helper, Flagman, Outboard and Hand Boats.

GROUP # B:

Chain Saw, Concrete Aggregate Bin, Concrete Bootmen, 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, Tamper, Drill Doctor, Tail or Screw Operator on Asphalt Paver, Water Pump Operators(1-1/2" and Single Diaphragm) Nozzle (Asphalt, Guniting, Seeding, and Sand Blasting), Laborers on Chain Link Fence, Rock Splitter 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 Powderman.

GROUP # D:

Blasters, Metal Form Setters (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	07/01/2017	07/01/2018
		Additional

Group # A	\$ 30.55	\$1.85
Group # B	30.75	
Group # C	30.95	
Group # D	31.15	
Group # E	32.55	

Workers on a single irregular work shift starting anytime from 5:00 pm to 1:00 am due to governmental mandated night work shall be paid an additional \$2.00 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 worked

Journeyman \$ 21.39

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: If the holiday falls on Sunday, it will be celebrated on Monday.

REGISTERED APPRENTICES

Wages per hour

1000 HOUR TERMS AT THE FOLLOWING PERCENTAGE OF JOURNEYMAN'S BASE WAGE

1ST	2ND	3RD	4TH
65 %	70 %	80 %	80 %

Supplemental Benefits per hour worked

Apprentices \$ 21.39

1-157h/h

Laborer - Tunnel	12/01/2017
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JOB DESCRIPTION Laborer - Tunnel

DISTRICT 1

ENTIRE COUNTIES

Schenectady, Schoharie

PARTIAL COUNTIES

Fulton: Only the Townships of Bleeker, Mayfield, North Hampton, Johnstown, Broadalbin, 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, Galaway, Northumberland, Milton, Saratoga Springs, Charlton, Ballston, Malta, and Clifton Park

WAGES

Class A: Mole nipper, powder handler, changehouse attendant and top laborer, Air spade, jackhammer, pavement breaker, Top bell, Bottom bell, side or roofbelt driller, maintenance men, burners, block layers, rodmen, caulkers, miners helper, trackmen, nippers, derailmen, electrical cablemen, hosemen, groutmen, gravelmen, form workers, movers and shaftmen, conveyor men.

Class B: Powder monkey, Blasters, ironmen and cement worker, miner, welder, heading driller, steel erectors, piledriver, rigger

Wages per hr.	07/01/2017	07/01/2018
		Additional
		\$1.85
Class #A	\$ 34.75	
Class #B	35.75	

All employees who work a single irregular work day that starts from 5:00 pm to 1:00 am on a governmental mandated night shift shall be paid an additional \$2.00 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 worked

Journeyman \$ 22.14

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note if the holiday falls on Sunday, it will be celebrated on Monday.

REGISTERED APPRENTICES

Wages per hour

1000 HOUR TERMS AT THE FOLLOWING PERCENTAGE OF JOURNEYMAN'S BASE WAGE

1ST	2ND	3RD	4TH
65 %	70 %	80 %	80 %

Supplemental Benefits per hour worked

Apprentices \$ 22.14

1-157

Laborer - Tunnel

12/01/2017

JOB DESCRIPTION Laborer - Tunnel

DISTRICT 7

ENTIRE COUNTIES

Hamilton, Herkimer, Madison, Oneida

PARTIAL COUNTIES

Fulton: Only the Townships of Stratford, Caroga, Oppenheim and Ephrata.

Montgomery: Only the Townships of Minden, Palantine, Canajoharie, Root and St. Johnsville.

WAGES

Class A: Mole nipper, powder handler, changehouse attendant and top laborer, Air spade, jackhammer, pavement breaker, Top bell, Bottom bell, side or roofbelt driller, maintenance men, burners, block layers, rodmen, caulkers, miners helper, trackmen, nippers, derailmen, electrical cablemen, hosemen, groutmen, gravelmen, form workers, movers and shaftmen, conveyor men.

Class B: Powder monkey, Blasters, ironmen and cement worker, miner, welder, heading driller, steel erectors, piledriver, rigger

Per hour:	07/01/2017	07/01/2018
		Additional
Tunnel Laborer:		
Class A:	\$ 32.25	\$ 1.85
Class B:	33.25	1.85

An additional \$2.00 to hourly rate when required to use or wear protective equipment on a Federal or State designated hazardous site.
Governmental mandated night work,(single irregular shift): Additional \$2.00/hr.

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: \$ 24.64

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

WAGES: Hour terms at the following percentage of Journeyman's wage.

to 1000	to 2000	to 4000
65%	70%	80%

SUPPLEMENTAL BENEFITS per hour worked:

All Terms: Same as Journeyman

7-35T

Lineman Electrician **12/01/2017**

JOB DESCRIPTION Lineman Electrician

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

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)

	07/01/2017	05/07/2018	05/06/2019	05/04/2020
Lineman, Technician	\$ 49.20	\$ 50.60	\$ 52.05	\$ 53.50
Crane, Crawler Backhoe	49.20	50.60	52.05	53.50
Welder, Cable Splicer	49.20	50.60	52.05	53.50
Digging Mach. Operator	44.28	45.54	46.85	48.15
Tractor Trailer Driver	41.82	43.01	44.24	45.48
Groundman, Truck Driver	39.36	40.48	41.64	42.80
Equipment Mechanic	39.36	40.48	41.64	42.80
Flagman	29.52	30.36	31.23	32.10

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)

Lineman, Technician	\$ 49.20	\$ 50.60	\$ 52.05	\$ 53.50
Crane, Crawler Backhoe	49.20	50.60	52.05	53.50
Cable Splicer	54.12	55.66	57.26	58.85
Certified Welder - Pipe Type Cable	51.66	53.13	54.65	56.18
Digging Mach. Operator	44.28	45.54	46.85	48.15
Tractor Trailer Driver	41.82	43.01	44.24	45.48
Groundman, Truck Driver	39.36	40.48	41.64	42.80
Equipment Mechanic	39.36	40.48	41.64	42.80
Flagman	29.52	30.36	31.23	32.10

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)

Lineman, Tech, Welder	\$ 50.52	\$ 51.92	\$ 53.37	\$ 54.82
Crane, Crawler Backhoe	50.52	51.92	53.37	54.82
Cable Splicer	55.57	57.11	58.71	60.30
Certified Welder - Pipe Type Cable	53.05	54.52	56.04	57.56
Digging Mach. Operator	45.47	46.73	48.03	49.34
Tractor Trailer Driver	42.94	44.13	45.36	46.60
Groundman, Truck Driver	40.42	41.54	42.70	43.86
Equipment Mechanic	40.42	41.54	42.70	43.86

Flagman	30.31	31.15	32.02	32.89
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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)

Lineman, Tech, Welder	\$ 51.71	\$ 53.11	\$ 54.56	\$ 56.01
Crane, Crawler Backhoe	51.71	53.11	54.56	56.01
Cable Splicer	51.71	53.11	54.56	56.01
Digging Mach. Operator	46.54	47.80	49.10	50.41
Tractor Trailer Driver	43.95	45.14	46.38	47.61
Groundman, Truck Driver	41.37	42.49	43.65	44.81
Equipment Mechanic	41.37	42.49	43.65	44.81
Flagman	31.03	31.87	32.74	33.61

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:

1ST SHIFT	8:00 AM to 4:30 PM REGULAR RATE
2ND SHIFT	4:30 PM to 1:00 AM REGULAR RATE PLUS 17.3 %
3RD SHIFT	12:30 AM to 9:00 AM REGULAR RATE PLUS 31.4 %

**** IMPORTANT NOTICE ****

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.
 *Effective 05/06/2013, 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 (also required on non-worked holidays):

The following SUPPLEMENTAL BENEFITS apply to all classification categories of CONSTRUCTION, TRANSMISSION and DISTRIBUTION.

Journeyman	\$ 22.65 *plus 6.75% of hourly wage	\$ 23.40 *plus 6.75% of hourly wage	\$ 24.15 *plus 6.75% of hourly wage	\$ 24.90 *plus 6.75% of hourly wage
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*The 6.75% is based on the hourly wage paid, straight time rate or premium rate.

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 (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.
 Overtime See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES

WAGES: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS: Same as Journeyman

JOB DESCRIPTION Lineman Electrician - Teledata

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour:

FOR OUTSIDE WORK.

07/01/2017

Cable Splicer	\$ 30.90
Installer, Repairman	29.33
Teledata Lineman	29.33
Technician, Equipment Operator	29.33
Groundman	15.56

NOTE: EXCLUDES Teledata work within ten (10) feet of High Voltage (600 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:

1ST SHIFT	REGULAR RATE
2ND SHIFT	REGULAR RATE PLUS 10%
3RD SHIFT	REGULAR RATE PLUS 15%

SUPPLEMENTAL BENEFITS

Per hour:

Journeyman	\$ 4.43
	*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 (5, 6, 16) on HOLIDAY PAGE

6-1249LT - Teledata

Lineman Electrician - Traffic Signal, Lighting

12/01/2017

JOB DESCRIPTION Lineman Electrician - Traffic Signal, Lighting

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Lineman/Technician shall perform all overhead aerial work. A Lineman/Technician on the ground will install all electrical panels, connect all grounds, install and connect all electrical conductors which includes, but is not limited to road loop wires; conduit and plastic or other type pipes that carry conductors, flex cables and connectors, and to oversee the encasement or burial of such conduits or pipes.

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, grout pole bases, cover and maintain footers while curing in cold weather, operate jack hammer, operate hand pavement breaker, tamper, concrete and other motorized saws, as a drill helper, operate and maintain generators, water pumps, chainsaws, sand blasting, operate mulching and seeding machine, air tools, electric tools, gas tools, load and unload materials, hand shovel and/or broom, prepare and pour mastic and other fillers, assist digger operator equipment operator in ground excavation and restoration, landscape work and painting. Only when assisting a lineman technician, a groundman/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)

Per hour:

	07/01/2017	05/07/2018	05/06/2019	05/04/2020
Lineman, Technician	\$ 42.65	\$ 43.80	\$ 45.00	\$ 46.20
Crane, Crawler Backhoe	42.65	43.80	45.00	46.20
Certified Welder	44.78	45.99	47.25	48.51
Digging Machine	38.39	39.42	40.50	41.58
Tractor Trailer Driver	36.25	37.23	38.25	39.27
Groundman, Truck Driver	34.12	35.04	36.00	36.96
Equipment Mechanic	34.12	35.04	36.00	36.96
Flagman	25.59	26.28	27.00	27.72

Above rates applicable on all Lighting and Traffic Signal Systems with the installation, testing, operation, maintenance and repair of all traffic control and illumination projects, traffic monitoring systems, road weather information systems and the installation of Fiber Optic Cable.

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:

1ST SHIFT	8:00 AM TO 4:30 PM	REGULAR RATE
2ND SHIFT	4:30 PM TO 1:00 AM	REGULAR RATE PLUS 17.3%
3RD SHIFT	12:30 AM TO 9:00 AM	REGULAR RATE PLUS 31.4%

**** IMPORTANT NOTICE ****

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.

*Effective 05/06/2013, 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):

Journeyman	\$ 22.65	\$ 23.40	\$ 24.15	\$ 24.90
	*plus 6.75% of hourly wage	*plus 6.75% of hourly wage	*plus 6.75% of hourly wage	*plus 6.75% of hourly wage

*The 6.75% is based on the hourly wage paid, straight time rate or premium rate.

Supplements paid at STRAIGHT TIME rate for holidays.

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 (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

Overtime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES

WAGES: Per hour. 1000 hour terms.

	07/01/2017	05/07/2018	05/06/2019	05/04/2020
1st term	\$ 25.59	\$ 26.28	\$ 27.00	\$ 27.72
2nd term	27.72	28.47	29.25	30.03
3rd term	29.86	30.66	31.50	32.34
4th term	31.99	32.85	33.75	34.65
5th term	34.12	35.04	36.00	36.96
6th term	36.25	37.23	38.25	39.27
7th term	38.39	39.42	40.50	41.58

SUPPLEMENTAL BENEFITS: Same as Journeyman

Lineman Electrician - Tree Trimmer

12/01/2017

JOB DESCRIPTION Lineman Electrician - Tree Trimmer

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Per hour:

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.

07/01/2017

Tree Trimmer	\$ 23.95
Equipment Operator	21.13
Equipment Mechanic	21.13
Truck Driver	17.52
Groundman	14.36
Flag person	10.23

SUPPLEMENTAL BENEFITS

Per hour worked (but also required on non-worked holidays):

Journeyman	\$ 9.98
	*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, 6, 8, 15, 16, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 8, 15, 16, 25) on HOLIDAY PAGE

NOTE: All paid holidays falling on a Saturday shall be observed on the preceding Friday.

All paid holidays falling on a Sunday shall be observed on the following Monday.

6-1249TT

Mason - Building

12/01/2017

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 07/01/2017

Tile/Marble/Terrazzo

Setter	\$ 33.65
Finisher	26.40

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

Journeyman Setter	\$ 19.29
Journeyman Finisher	16.57

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

Hour Terms at the following percentage of Journeyman's wage

Setter:

1st term 0-500 hrs	60%
2nd term 501-1500 hrs	70%
3rd term 1501-2500 hrs	80%
4th term 2501-3500 hrs	85%
5th term 3501-4500 hrs	90%
6th term 4501-6000 hrs	95%

Finisher:

1st term 0-500 hrs	70%
2nd term 501-1500 hrs	80%
3rd term 1501-2500 hrs	90%
4th term 2501-3700 hrs	95%

Supplemental Benefits per hour worked

07/01/2017

Setter:

1st term 0-500 hrs	\$ 11.24
2nd term 501-1500 hrs	11.24
3rd term 1501-2500 hrs	15.26
4th term 2501-3500 hrs	15.26
5th term 3501-4500 hrs	17.28
6th term 4501-6000 hrs	19.29

Finisher:

1st term 0-500 hrs	\$ 10.72
2nd term 501-1500 hrs	10.72
3rd term 1501-2500 hrs	13.64
4th term 2501-3700 hrs	13.64

12-2TS.1

Mason - Building

12/01/2017

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 07/01/2017

Bricklayer	\$ 35.03
Cement Mason(Bldg)	35.03
Plasterer/Fireproofing*	35.03
Pointer/Caulker/Cleaner	35.03
Stone Mason	35.03
Acid Brick	35.03

(*)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

Per hour worked

Journeyman \$ 20.19

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: Any holiday which occurs on Sunday shall be observed the following Monday.

REGISTERED APPRENTICES

Wages per hour

750 hour terms at the following percentage of Journey's wage

1st	2nd	3rd	4th	5th	6th	7th	8th
55%	60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked

0-500 Hours	\$ 11.79
All others	\$ 20.19

12-2b.1

Mason - Heavy&Highway

12/01/2017

JOB DESCRIPTION Mason - Heavy&Highway

DISTRICT 12

ENTIRE COUNTIES

Albany, Cayuga, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Madison, 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 1-2h/h on.

WAGES

Per hour

07/01/2017

Mason & Bricklayer \$36.06

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

Journeyman \$ 19.23

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: 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

1st	2nd	3rd	4th	5th	6th	7th	8th
55%	60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked

\$ 19.23

Millwright - Building

12/01/2017

JOB DESCRIPTION Millwright - Building

DISTRICT 2

ENTIRE COUNTIES

Albany, Chenango, Delaware, Fulton, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie

WAGES

Per hour: 07/01/2017

Millwright* \$ 31.09

NOTE ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount subject to any overtime premiums):

- Certified Welders shall receive \$1.25 per hour in addition to the current Millwright's rate provided he/she is directed to perform certified welding.
- If a work site has been declared a hazardous site by the Owner and the use of protective gear (including, as a minimum, air purifying canister-type chemical respirators) are required, then that employee shall receive a \$1.25 premium per hour.
- An employee performing the work of a machinist shall receive \$1.25 per hour in addition to the current Millwright's 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.

*Regarding treatment plants water or sewer, the Millwright Building rate is applicable for millwrights only performing maintenance and upkeep of existing equipment. For new work at treatment plants water or sewer, refer to the Heavy Highway Millwright rates listed under Carpenter Heavy Highway.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman \$ 22.30

OVERTIME PAY

See (B, E, *E2, 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 failure, 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 journeyman's rate.

1st	2nd	3rd	4th
60%	70%	80%	90%

Supplemental Benefits per hours worked:

Apprentices:

1st term	\$ 10.40
2nd term	18.73
3rd term	19.92
4th term	21.11

2-1163.1

Operating Engineer - Building

12/01/2017

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 Bedelt Road then east along Bedelt 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

CLASS A1:

Crane, hydraulic cranes, tower crane, locomotive crane, piledriver, cableway, derricks, whirlies, dragline, boom trucks over 5 tons.

CLASS A:

Shovel, all Excavators (including rubber tire full swing), Gradalls, power road grader, all CMI equipment, front-end rubber tire loader, tractor-mounted drill (quarry master), mucking machine, concrete central mix plant, concrete pump, belcrete system, automated asphalt concrete plant, and tractor road paver, boom trucks 5 tons and under, maintenance engineer, self-contained crawler drill-hydraulic rock drill.

CLASS B:

Backhoes (rubber tired backhoe/loader combination), bulldozer, pushcat, tractor, traxcavator, scraper, LeTourneau grader, form fine grader, self-propelled soil compactor (fill roller), asphalt roller, blacktop spreader, power brooms, sweepers, trenching machine, Barber Green loader, side booms, hydro hammer, concrete spreader, concrete finishing machine, one drum hoist, power hoisting (single drum), hoist two drum or more, three drum engine, power hoisting (two drum and over), two drum and swinging engine, three drum swinging engine, hod hoist, A-L frame winches, core and well drillers (one drum), post hole digger, model CHB Vibro-Tamp or similar machine, batch bin and plant operator, dinky locomotive, skid steer loader, track excavator 5/8 cubic yard or smaller, front end rubber tired loader under four cubic yards, vacuum machine (mounted or towed).

CLASS C:

Fork lift, high lift, all terrain fork lift: or similar, oiler, fireman and heavy-duty greaser, boilers and steam generators, pump, vibrator, motor mixer, air compressor, dust collector, welding machine, well point, mechanical heater, generators, temporary light plants, electric submersible pumps 4" and over, murphy type diesel generator, conveyor, elevators, concrete mixer, beltcrete power pack (belcrete system), seeding, and mulching machines, pumps.

* 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

	07/01/2017	07/01/2018
Class # A1	\$ 42.66	\$ 44.29
Class # A	42.18	43.80
Class # B	41.18	42.78
Class # C	38.37	39.88

Additional \$0.50 per hr for Tower Cranes.

Additional \$1.00 per hr for Cranes with Boom length & jib 150ft. and over.

Additional \$2.00 per hr for Cranes with Boom length & jib 200ft. and over.

Additional \$2.00 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.

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 25.00	\$ 25.40
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OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: 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 Saturday holiday shall be paid double time plus the holiday pay.

REGISTERED APPRENTICES

Wages per hour

1000 hours terms at the following percentage of Journeyman's wage Class B

1st	2nd	3rd	4th
60%	70%	80%	90%

Supplemental Benefits per hour worked

	07/01/2017	07/01/2018
All terms	\$ 20.30	\$ 20.70

Operating Engineer - Heavy&Highway

12/01/2017

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 Bedelt Road then east along Bedelt 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:

Asphalt Curb Machine (Self Propelled, Slipform), Asphalt Paver, Automated Concrete Spreader (CMI Type), Automatic Fine Grader, Backhoe (Except Tractor Mounted, Rubber Tired), Backhoe Excavator Full Swing (CAT 212 or similar type), Back Filling Machine, Belt Placer (CMI Type), Blacktop Plant (Automated), Boom truck, Cableway, Caisson Auger, Central Mix Concrete Plant (Automated), Concrete Curb Machine (Self Propelled, Slipform), Concrete Pump, Crane, Cherry Picker, Derricks (steel erection), Dragline, Overhead Crane (Gantry or Straddle type), Pile Driver, Truck Crane, Directional Drilling Machine, Dredge, Dual Drum Paver, Excavator (All PurposeHydraulically Operated) (Gradall or Similar), Front End Loader (4 cu. yd. and Over), Head Tower (Sauerman or Equal), Hoist (Two or Three Drum), Holland Loader, Maintenance Engineer, Mine Hoist, Mucking Machine or Mole, Pavement Breaker(SP) Wertgen; PB-4 and similar type, Power Grader, Profiler (over 105 H.P.), Quad 9, Quarry Master (or equivalent), Scraper, Shovel, Side Boom, Slip Form Paver (If a second man is needed, he shall be an Oiler), Tractor Drawn BeltType Loader, Truck or Trailer Mounted Log Chipper (Self Feeder), Tug Operator (Manned Rented Equipment Excluded), Tunnel Shovel

CLASSIFICATION B:

Backhoe (Tractor Mounted, Rubber Tired), Bituminous Recycler Machine, Bituminous Spreader and Mixer, Blacktop Plant (NonAutomated), Blast or Rotary Drill (Truck or Tractor Mounted), Boring Machine, Cage Hoist, Central Mix Plant [(NonAutomated) and All Concrete Batching Plants], Concrete Paver (Over 16S), Crawler Drill (Self-contained), Crusher, Diesel Power Unit, Drill Rigs, Tractor Mounted, Front End Loader (Under 4 cu. yd.), Greaseman/Lubrication Engineer, HiPressure Boiler (15 lbs. and over), Hoist (One Drum), Hydro-Axe, Kolman Plant Loader and Similar Type Loaders (If Employer requires another man to clean the screen or to maintain the equipment, he shall be an Oiler), L.C.M. Work Boat Operator, Locomotive, Material handling knuckle boom, Mixer (for stabilized base selfpropelled), Monorail Machine, Plant Engineer, Profiler (105 H.P. and under), Pug Mill, Pump Crete, Ready Mix Concrete Plant, Refrigeration Equipment (for soil stabilization), Road Widener, Roller (all above subgrade), Sea Mule, Self-contained Ride-on Rock Drill(Excluding Air-Track Type Drill), Skidder, Tractor with Dozer and/or Pusher, Trencher, Tugger Hoist, Vacuum machine (mounted or towed), Vermeer saw (ride on, any size or type), Welder

CLASSIFICATION C:

A Frame Winch Hoist on Truck, Articulated Heavy Hauler, Aggregate Plant, Asphalt or Concrete Grooving Machine (ride on), Ballast Regulator(Ride-on), Boiler (used in conjunction with production), Bituminous Heater (self-propelled), Boat (powered), Cement and Bin Operator, Concrete Pavement Spreader and Finisher Concrete Paver or Mixer (16' and under), Concrete Saw (self-propelled), Conveyor, Deck Hand, Directional Drill Machine Locator, Drill (Core and Well), Farm Tractor with accessories, Fine Grade Machine, Fireman, Fork Lift, Form Tamper, Grout Pump, Gunit Machine, Hammers (Hydraulic self-propelled), Hydra-Spiker (ride-on), Hydraulic Pump (jacking system), Hydro-Blaster (Water), Mulching Machine, Oiler, Parapet Concrete or Pavement Grinder, Post Hole Digger and Post Driver, Power Broom (towed), Power Heaterman, Power Sweeper, Revinius Widener, Roller (Grade and Fill), Scarifier (ride-on), Shell Winder, Skid steer loader (Bobcat or similar), Span-Saw (ride-on), Steam Cleaner, Tamper (ride-on), Tie Extractor (ride-on), Tie Handler (ride-on), Tie Inserter (ride-on), Tie Spacer (ride-on), Tire Repair, Track Liner (ride-on), Tractor, Tractor (with towed accessories), Vibratory Compactor, Vibro Tamp, Well Point, and the following hands-off equipment: Compressors, Dust Collectors, Generators, Pumps, Welding Machines, Light Plants and Heaters

- Note for all above classifications of Operating Engineer - 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

	07/01/2017	07/01/2018
Master Mechanic	\$ 43.79	\$ 45.58
Class A*	42.18	43.97
Class B	41.27	43.06
Class C	38.70	40.49

Additional \$2.00 per hour for All Employees who work a single irregular work shift starting from 5:00 PM to 1:00 AM that is mandated by the Contracting Agency.

Additional \$2.50 per hr. for hazardous waste removal work on State and/or Federally designated waste site which require employees to wear Level C or above forms of personal protection.

(*) Premiums for CRANES is based upon Class A rates with the following premiums:

- Additional \$4.00 per hr for Tower Cranes, including self erecting.
- Additional \$3.00 per hr for Lattice Boom Cranes and all other cranes with a manufacturers rating of fifty (50) tons and over.

- Additional \$2.00 per hr for all Hydraulic Cranes and Derricks with a manufacturer's rating of 49 ton and below, including boom trucks.

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

Journeyman \$ 25.20 \$ 25.60

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: If the holiday falls on Sunday, it will be celebrated on Monday. If the holiday falls on a Saturday, it will be celebrated on Saturday.

REGISTERED APPRENTICES

Wages per hour

1000 hours terms at the following percentage of Journeyman's wage Class B

1st	2nd	3rd	4th
60%	70%	80%	90%

Supplemental Benefits per hour worked

	07/01/2017	07/01/2018
All Terms	\$ 20.60	\$ 21.00

1-158H/H Alb

Operating Engineer - Survey Crew

12/01/2017

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, Niagara, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north.

Genesee: Only the portion of the county that lies east of a line down the center of Route 98 to include all area that lies within the City of Batavia.

WAGES

These rates apply to Building and Heavy Highway.

Per hour:

SURVEY CLASSIFICATIONS:

Party Chief - One who directs a survey party.

Instrument Person - One who operates the surveying instruments.

Rod Person - One who holds the rods and assists the Instrument Person.

07/01/2017

Party Chief	\$ 40.01
Instrument Person	36.74
Rod Person	27.15

Additional \$3.00 per hr. for work in a Tunnel.

Additional \$2.50 per hr. for EPA or DEC certified toxic or hazardous waste work.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman \$ 24.20

OVERTIME PAY

See (B, E, P, T) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

WAGES: 1000 hour terms based on the Percentage of Rod Persons Wage:

07/01/2017

0-1000	60%
1001-2000	70%
2001-3000	80%

SUPPLEMENTAL BENIFIT per hour worked:

0-1000	\$ 16.24
1001-2000	\$ 18.96
2001-3000	\$ 21.67

12-158-545 D.H.H.

Operating Engineer - Survey Crew - Consulting Engineer

12/01/2017

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer

DISTRICT 12

ENTIRE COUNTIES

Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north.

Genesee: Only the portion of the county that lies east of a line down the center of Route 98 to include all area that lies within the City of Batavia.

WAGES

These rates apply to feasibility and preliminary design surveying, line and grade surveying for inspection or supervision of construction when performed under a Consulting Engineer Agreement.

Per hour:

SURVEY CLASSIFICATIONS:

Party Chief - One who directs a survey party.

Instrument Person - One who operates the surveying instruments.

Rod Person - One who holds the rods and assists the Instrument Person.

07/01/2017

Party Chief	\$ 40.01
Instrument Person	36.74
Rod Person	27.15

Additional \$3.00 per hr. for work in a Tunnel.

Additional \$2.50 per hr. for EPA or DEC certified toxic or hazardous waste work.

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 24.20
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OVERTIME PAY

See (B, E, P, T) on OVERTIME PAGE

HOLIDAY

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

REGISTERED APPRENTICES

WAGES: 1000 hour terms based on percentage of Rod Persons Wage:

07/01/2017

0-1000	60%
1001-2000	70%
2001-3000	80%

SUPPLEMENTAL BENIFIT per hour worked:

0-1000	\$ 16.24
1001-2000	\$ 18.86
2001-3000	\$ 21.67

12-158-545 DCE

Operating Engineer - Tunnel

12/01/2017

JOB DESCRIPTION Operating Engineer - Tunnel

DISTRICT 7

ENTIRE COUNTIES

Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES

Dutchess: Northern part of Dutchess to the northern boundary line of the City of Poughkeepie then due east to Route 115 to Bedelt Road then east along Bedelt 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 Connecticut.

Genesee: Only that portion of the county that lies east of a line drawn down the center of Route 98 and the entirety of the City of Batavia.

WAGES

CLASS A: Automatic Concrete Spreader (CMI Type); Automatic Fine Grader; Backhoe (except tractor mounted, rubber tired); Belt Placer (CMI Type); Blacktop Plant (automated); Cableway; Caisson Auger; Central Mix Concrete Plant (automated); Concrete Curb Machine (self-propelled slipform); Concrete Pump (8" or over); Dredge; Dual Drum Paver; Excavator; Front End Loader (4 cu. yd & over); Gradall; Head Tower (Sauerman or Equal); Hoist (shaft); Hoist (two or three Drum); Log Chipper/Loader (self-feeder); Maintenance Engineer (shaft and tunnel); any Mechanical Shaft Drill; Mine Hoist; Mining Machine(Mole and similar types); Mucking Machine or Mole; Overhead Crane (Gantry or Straddle Type); Pile Driver; Power Grader; Remote Controlled Mole or Tunnel Machine; Scraper; Shovel; Side Boom; Slip Form Paver (If a second man is needed, they shall be an Oiler); Tripper/Maintenance Engineer (shaft & tunnel); Tractor Drawn Belt-Type Loader; Tug Operator (manned rented equipment excluded); Tunnel Shovel

CLASS B: Automated Central Mix Concrete Plant; Backhoe (topside); Backhoe (track mounted, rubber tired); Backhoe (topside); Bituminous Spreader and Mixer, Blacktop Plant (non-automated); Blast or Rotary Drill (truck or tractor mounted); Boring Machine; Cage Hoist; Central Mix Plant(non-automated); all Concrete Batching Plants; Compressors (4 or less exceeding 2,000 c.f.m. combined capacity); Concrete Pump; Crusher; Diesel Power Unit; Drill Rigs (tractor mounted); Front End Loader (under 4 cu. yd.); Grayco Epoxy Machine; Hoist (One Drum); Hoist (2 or 3 drum topside); Knuckle Boom material handler; Kolman Plant Loader & similar type Loaders (if employer requires another person to clean the screen or to maintain the equipment, they shall be an Oiler); L.C.M. Work Boat Operator; Locomotive; Maintenance Engineer (topside); Maintenance Grease Man; Mixer (for stabilized base-self propelled); Monorail Machine; Plant Engineer; Personnel Hoist; Pump Crete; Ready Mix Concrete Plant; Refrigeration Equipment (for soil stabilization); Road Widener; Roller (all above sub-grade); Sea Mule; Shotcrete Machine; Shovel (topside); Tractor with Dozer and/or Pusher; Trencher; Tugger Hoist; Tunnel Locomotive; Welder; Winch; Winch Cat

CLASS C: A Frame Truck; All Terrain Telescoping Material Handler; Ballast Regulator (ride-on); Compressors (4 not to exceed 2,000 c.f.m. combined capacity; or 3 or less with more than 1200 c.f.m. but not to exceed 2,000 c.f.m.); Compressors ((any size, but subject to other provisions for compressors), Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (4 or any type combination)); Concrete Pavement Spreaders and Finishers; Conveyor; Drill (core); Drill (well); Electric Pump used in conjunction with Well Point System; Farm Tractor with Accessories; Fine Grade Machine; Fork Lift; Grout Pump (over 5 cu. ft.); Gunit Machine; Hammers (hydraulic-self-propelled); Hydra-Spiker (ride-on); Hydra-Blaster (water); Hydro-Blaster; Motorized Form Carrier; Post Hole Digger and Post Driver; Power Sweeper; Roller grade & fill); Scarifer (ride-on); Span-Saw (ride-on); Submersible Electric Pump (when used in lieu of well points); Tamper (ride-on); Tie-Extractor (ride-on), Tie Handler (ride-on), Tie Inserter (ride-on), Tie Spacer (ride-on); Track Liner (ride-on); Tractor with towed accessories; Vibratory Compactor; Vibro Tamp, Well Point

CLASS D: Aggregate Plant; Cement & Bin Operator; Compressors (3 or less not to exceed 1,200 c.f.m. combined capacity); Compressors ((any size, but subject to other provisions for compressors), Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (3 or less or any type or combination)); Concrete Saw (self-propelled); Form Tamper; Greaseman; Hydraulic Pump (jacking system); Junior Engineer; Light Plants; Mulching Machine; Oiler; Parapet Concrete or Pavement Grinder; Power Broom (towed); Power Heaterman (when used for production); Revinius Widener; Shell Winder; Steam Cleaner; Tractor

WAGES per hour:

	07/01/2017	07/01/2018
Master Mechanic	45.49	47.15
CLASS A	43.15	44.74
CLASS B	41.93	43.52
CLASS C	39.14	40.73
CLASS D	36.13	37.72

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 Lattice Boom Cranes and all cranes with a manufacturer's rating of fifty (50) ton and over to be paid \$3.00 per hour over Class A rate.

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.

Crane 1	\$ 47.15	\$ 48.74
Crane 2	46.15	47.74
Crane 3	45.15	46.74

SUPPLEMENTAL BENEFITS

Per hour paid:	\$ 27.20	\$ 27.90
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OVERTIME PAY

See (B, B2, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

If a holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES

WAGES:(1000) hours terms at the following percentage of Journeyman's wage.

1st term	60% of Class B
2nd term	65% of Class B
3rd term	70% of Class B
4th term	75% of Class B

SUPPLEMENTAL BENEFITS per hour paid: Same as Journeyman

7-158-832TL.

Painter

12/01/2017

JOB DESCRIPTION Painter

DISTRICT 1

ENTIRE COUNTIES

Albany, Fulton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie

WAGES

Per hour	07/01/2017	05/01/2018 Additional	05/01/2019 Additional
Painter\Wallcover	\$ 28.24	\$ 1.40	\$1.40
Drywall Finishers	28.24	1.40	1.40
Spray Rate	28.24	1.40	1.40
Structural Steel*	29.24	1.40	1.40
Lead Abatement	29.24	1.40	1.40
Lead Abatement on Structural Steel	30.24	1.40	1.40

(*)Employees working on objects with the use of swing stage, boatswain 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 Tanks

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$14.84
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OVERTIME PAY

See (B, E2, H) on OVERTIME PAGE

HOLIDAY

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

1st	2nd	3rd	4th	5th	6th
45%	50%	60%	70%	80%	90%

Supplemental Benefits per hour worked

All Terms \$14.84

1-466-Z1

Painter - Bridge & Structural Steel

12/01/2017

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, Schenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

WAGES

Per Hour Worked:

STEEL:

Bridge Painting:	07/01/2017	10/01/2017	10/01/2018
From May 1st to Nov. 15th -	\$ 49.50 + 6.38*	\$ 50.00 + 6.63*	\$ 51.00 + 6.88*
From Nov. 16th to April 30th -	\$ 49.50 + 6.38*	\$ 50.00 + 6.63*	\$ 51.00 + 6.88*

*Not subject to overtime and limited to first 40 hours

NOTE: All premium wages are to be calculated on base rate per hour only.

EXCEPTION: During the period of May 1st to November 15th, for the first and last week of employment on the project, and for the weeks of Memorial Day, Independence Day and Labor Day, this rate shall be paid for the actual number of hours worked.

Power Tool/Spray is an additional \$6.00 per hour above hourly rate, whether straight time or overtime

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.

SUPPLEMENTAL BENEFITS

Per Hour Worked:

Journeyworker:	07/01/2017	10/01/2017	10/01/2018
From May 1st to Nov. 15th -			
Hourly Rate up to 40 hours	\$ 30.90	\$ 31.90	\$ 33.60
Hourly Rate after 40 hours	7.50	7.50	7.50
From Nov. 16th to April 30th -			
Hourly Rate up to 50 hours	\$ 29.70	\$ 31.90	\$ 33.60
Hourly Rate after 50 hours	7.50	7.50	7.50

EXCEPTION: During the period of May 1st to November 15th, for the first and last week of employment on the project, and for the weeks of Memorial Day, Independence Day and Labor Day, this rate shall be paid for the actual number of hours worked.

OVERTIME PAY

See (A, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (4, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wage - Per hour worked:

Apprentices: (1) year terms

	07/01/2017	10/01/2017	10/01/2018
1st year	\$ 22.35	\$ 22.65	\$ 23.13
2nd year	33.53	33.98	34.73
3rd year	44.70	45.30	46.30

Supplemental Benefits - Per hour worked:

1st year	\$ 12.36	\$ 12.76	\$ 13.44
2nd year	18.54	19.14	20.16
3rd year	24.72	25.52	26.88

8-DC-9/806/155-BrSS

Painter - Line Striping

12/01/2017

JOB DESCRIPTION Painter - Line Striping

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, Schenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

WAGES

Per hour:

Painter (Striping-Highway):	07/01/2017
Striping-Machine Operator*	\$ 27.11
Linerman Thermoplastic	\$ 32.37

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: 07/01/2017
 Journeyworker:

Striping-Machine operator	\$ 14.18
Linerman Thermoplastic	\$ 14.55

OVERTIME PAY

See (B, E, E2, F, S) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 20) on HOLIDAY PAGE
 Overtime: See (5, 8, 11, 12, 15, 16, 17, 20, 21, 22) on HOLIDAY PAGE

8-1456-LS

Painter - Metal Polisher

12/01/2017

JOB DESCRIPTION Painter - Metal Polisher

DISTRICT 8

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuylar, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

07/01/2017	06/01/2018
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Metal Polisher	\$ 29.73	\$ 30.58
Metal Polisher**	30.68	31.53
Metal Polisher***	33.23	34.08

**Note: Applies on New Construction & complete renovation
 *** Note: Applies when working on scaffolds over 34 feet.

SUPPLEMENTAL BENEFITS

Per Hour:	07/01/2017	06/01/2018
Journeyworker: All classification	\$ 7.55	\$ 7.65

OVERTIME PAY

See (B, E, E2, P, 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:
 One (1) year term at the following wage rates:

	07/01/2017	06/01/2018
1st year	\$ 12.14	\$ 14.25
2nd year	13.44	15.50
3rd year	16.29	18.25

Supplementals benefits:
 Per hour paid:

1st year	\$ 5.62	\$ 5.62
2nd year	5.62	5.62
3rd year	5.62	5.62

8-8A/28A-MP

Plumber

12/01/2017

JOB DESCRIPTION Plumber

DISTRICT 1

ENTIRE COUNTIES

Albany, Columbia, Fulton, Greene, Montgomery, Rensselaer, Schenectady, Schoharie

PARTIAL COUNTIES

Hamilton: Only the Towns of Arietta, Benson, Hope, Inlet, Lake Pleasant, Morehouse and Wells.
 Saratoga: Only the Towns of Charlton, Clifton Park, Galway, Halfmoon, Milton, Stillwater and Waterford and the city of Mechanicville.

WAGES

Per hour:	07/01/2017	05/01/2018 Additional
Plumber: Pipefitter, Steamfitter	\$ 40.54	\$1.65

SUPPLEMENTAL BENEFITS

Per hour worked:	\$ 25.59
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OVERTIME PAY

See (B1, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
 Overtime: See (5, 6) 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 Journeyman's wage.

1st	2nd	3rd	4th	5th
45 %	55 %	65 %	75 %	90 %

Supplemental Benefits per hour worked:

Apprentices \$ 25.59

1-7-SF

Roofer **12/01/2017**

JOB DESCRIPTION Roofer

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Warren, Washington

WAGES

Per hour

07/01/2017

Roofer/Waterproofer	\$ 29.05
Asphalt Cold Process	29.55
Pitch & Asbestos	31.05

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman \$ 18.77

OVERTIME PAY

See (B, E*, Q) on OVERTIME PAGE.

* Saturday may be used as a make up day at straight time if employee misses 8 hrs or more during that week due to inclement weather.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) 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

(1/2) year terms at the following per cent of the Roofer/Waterproofer rate. For Pitch & Asbestos work, an additional \$2.00 must be paid in wages. For Asphalt Cold Process work, an additional \$0.50 must be paid in the wages.

1st yr 1st half	50%
1st yr 2nd half	58%
2nd yr 1st half	66%
2nd yr 2nd half	74%
3rd yr 1st half	82%
3rd yr 2nd half	90%

Supplemental Benefits per hour worked

1st yr 1st half	\$ 17.00
1st yr 2nd half	17.19
2nd yr 1st half	17.42
2nd yr 2nd half	17.62
3rd yr 1st half	17.90
3rd yr 2nd half	18.10

1-241

Sheetmetal Worker **12/01/2017**

JOB DESCRIPTION Sheetmetal Worker

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour	07/01/2017	06/01/2018 Additional
Sheetmetal Worker	\$31.80	\$1.60

All work requiring HAZWOPER Training additional \$1.00 per hour

SUPPLEMENTAL BENEFITS

Per hour worked	
Journeyman	\$31.15

OVERTIME PAY

See (B,E*,Q,) on OVERTIME PAGE
 * Time and one half 1st 8 hours on Saturday. Double the hourly rate all additional Saturday hours.

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	\$17.61
2nd term	\$19.08
3rd term	\$19.82
4th term	\$20.56
5th term	\$19.52
6th term	\$20.49
7th term	\$22.10
8th term	\$23.72
9th term	\$25.34
10th term	\$26.95

Supplemental Benefits per hour worked

1st term	\$18.92
2nd term	19.50
3rd term	19.79
4th term	20.21
5th term	25.69
6th term	26.12
7th term	26.84
8th term	27.56
9th term	28.28
10th term	29.00

Sprinkler Fitter **12/01/2017**

JOB DESCRIPTION Sprinkler Fitter **DISTRICT 1**

ENTIRE COUNTIES

Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Washington, Wayne, Wyoming, Yates

WAGES

Per hour	07/01/2017	01/01/2018	04/01/2018
Sprinkler Fitter	\$ 33.76	33.76	34.91

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman \$ 22.14 22.84 23.14

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: When a holiday falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double time rate. When a holiday falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double time rate.

REGISTERED APPRENTICES

Wages per hour

For Apprentices HIRED ON OR AFTER 04/01/2010:

One Half Year terms at the following percentage of journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
45%	50%	55%	60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 8.73	\$ 8.77	\$ 16.34	\$ 16.38	\$ 16.93	\$ 16.97	\$ 17.02	\$ 17.06	\$ 17.11	\$ 17.15

For Apprentices HIRED ON OR AFTER 04/01/2013:

One Half Year terms at the following percentage of journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
45%	50%	55%	60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
\$ 8.07	\$ 8.07	\$ 16.24	\$ 16.24	\$ 16.49	\$ 16.49	\$ 16.49	\$ 16.49	\$ 16.49	\$ 16.49

1-669

Teamster - Building

12/01/2017

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 oilers, 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

07/01/2017

Group A \$ 26.97

Group B 27.27

SUPPLEMENTAL BENEFITS

Per hour worked

07/01/2017

Journeyman \$ 21.64

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

Note: Any holiday which occurs on Sunday shall be observed the following Monday.

1-294

Teamster - Heavy&Highway

12/01/2017

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 Grieg, Lewis, Leyden, Lowville, Lyonsdale, Martinsburg, 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 Butternuts, Laurens, Maryland, Milford, Morris, Oneonta, Otego, Unidilla and Worchester.

Warren: Only the Townships of Bolton, Warrensburg, Thurman, Stony Creek, Luzerne, Caldwell, and Queensbury.

WAGES

GROUP #1:

Warehousemen, Yardmen, Truck Helpers, Pickups, Panel Trucks, Flatboy Material Trucks(straight jobs), Single Axel Dump Trucks, Dumpsters, Material Checkers and Receivers, Greasers, Truck Tiremen, 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:

Specialized Earth Moving Equipment, Euclid type, or similar off-highway,where not self-loading, Straddle (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	07/01/2017	07/01/2018
Group #1	\$ 28.42	\$ 29.17
Group #2	28.47	29.22
Group #3	28.56	29.31
Group #4	28.67	29.42
Group #5	28.82	29.57

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 negotiated rate in effect at the time of the bid.

**** IMPORTANT NOTICE - EFFECTIVE 04/01/2009 ****

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 paid:

\$ 23.00	\$ 24.10
+\$1.00 per hour worked	+\$1.00 per hour worked

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

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

1-294h/h

Welder

12/01/2017

JOB DESCRIPTION Welder

DISTRICT 1

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuylar, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour 07/01/2017

Welder: To be paid the same rate of the mechanic performing the work.*

*EXCEPTION: If a specific welder certification is required, then the 'Certified Welder' rate in that trade tag will be paid.

OVERTIME PAY

HOLIDAY

1-As Per Trade

Overtime Codes

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

NOTE: Supplemental Benefits are 'Per hour worked' (for each hour worked) unless otherwise noted

- (AA) Time and one half of the hourly rate after 7 and one half hours per day
- (A) Time and one half of the hourly rate after 7 hours per day
- (B) Time and one half of the hourly rate after 8 hours per day
- (B1) Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday.
Double the hourly rate for all additional hours
- (B2) Time and one half of the hourly rate after 40 hours per week
- (C) Double the hourly rate after 7 hours per day
- (C1) Double the hourly rate after 7 and one half hours per day
- (D) Double the hourly rate after 8 hours per day
- (D1) Double the hourly rate after 9 hours per day
- (E) Time and one half of the hourly rate on Saturday
- (E1) Time and one half 1st 4 hours on Saturday; Double the hourly rate all additional Saturday hours
- (E2) Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E3) Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week
- (E4) Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E5) Double time after 8 hours on Saturdays
- (F) Time and one half of the hourly rate on Saturday and Sunday
- (G) Time and one half of the hourly rate on Saturday and Holidays
- (H) Time and one half of the hourly rate on Saturday, Sunday, and Holidays
- (I) Time and one half of the hourly rate on Sunday
- (J) Time and one half of the hourly rate on Sunday and Holidays
- (K) Time and one half of the hourly rate on Holidays
- (L) Double the hourly rate on Saturday
- (M) Double the hourly rate on Saturday and Sunday
- (N) Double the hourly rate on Saturday and Holidays
- (O) Double the hourly rate on Saturday, Sunday, and Holidays
- (P) Double the hourly rate on Sunday
- (Q) Double the hourly rate on Sunday and Holidays
- (R) Double the hourly rate on Holidays
- (S) Two and one half times the hourly rate for Holidays, if worked

- (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, if worked
- (U) Four times the hourly rate for Holidays, if worked
- (V) Including benefits at SAME PREMIUM as shown for overtime
- (W) Time and one half for benefits on all overtime hours.

Holiday Codes

PAID Holidays:

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

OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

- (1) None
- (2) Labor Day
- (3) Memorial Day and Labor Day
- (4) Memorial Day and July 4th
- (5) Memorial Day, July 4th, and Labor Day
- (6) New Year's, Thanksgiving, and Christmas
- (7) Lincoln's Birthday, Washington's Birthday, and Veterans Day
- (8) Good Friday
- (9) Lincoln's Birthday
- (10) Washington's Birthday
- (11) Columbus Day
- (12) Election Day
- (13) Presidential Election Day
- (14) 1/2 Day on Presidential Election Day
- (15) Veterans Day
- (16) Day after Thanksgiving
- (17) July 4th
- (18) 1/2 Day before Christmas
- (19) 1/2 Day before New Years
- (20) Thanksgiving
- (21) New Year's Day
- (22) Christmas
- (23) Day before Christmas
- (24) Day before New Year's
- (25) Presidents' Day
- (26) Martin Luther King, Jr. Day
- (27) Memorial Day



**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: _____

(Check Only One)

Contracting Agency Architect or Engineering Firm Public Work District Office Date: _____

A. Public Work Contract to be let by: (Enter Data Pertaining to Contracting/Public Agency)

1. Name and complete address (Check if new or change)

Telephone: ()

Fax: ()

E-Mail: _____

2. NY State Units (see Item 5)

- | | |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <input type="checkbox"/> 01 DOT | <input type="checkbox"/> 07 City |
| <input type="checkbox"/> 02 OGS | <input type="checkbox"/> 08 Local School District |
| <input type="checkbox"/> 03 Dormitory Authority | <input type="checkbox"/> 09 Special Local District, i.e.,
Fire, Sewer, Water District |
| <input type="checkbox"/> 04 State University
Construction Fund | <input type="checkbox"/> 10 Village |
| <input type="checkbox"/> 05 Mental Hygiene
Facilities Corp. | <input type="checkbox"/> 11 Town |
| <input type="checkbox"/> 06 OTHER N.Y. STATE UNIT | <input type="checkbox"/> 12 County |
| | <input type="checkbox"/> 13 Other Non-N.Y. State
(Describe) |

3. SEND REPLY TO check if new or change)
Name and complete address: _____

Telephone:()

Fax: ()

E-Mail: _____

4. SERVICE REQUIRED. Check appropriate box and provide project information.

New Schedule of Wages and Supplements.

APPROXIMATE BID DATE : _____

Additional Occupation and/or Redetermination

PRC NUMBER ISSUED PREVIOUSLY FOR THIS PROJECT : _____

OFFICE USE ONLY

B. PROJECT PARTICULARS

5. Project Title _____

Description of Work _____

Contract Identification Number _____

Note: For NYS units, the OSC Contract No. _____

6. Location of Project:
Location on Site _____

Route No/Street Address _____

Village or City _____

Town _____

County _____

7. Nature of Project - Check One:

- 1. New Building
- 2. Addition to Existing Structure
- 3. Heavy and Highway Construction (New and Repair)
- 4. New Sewer or Waterline
- 5. Other New Construction (Explain)
- 6. Other Reconstruction, Maintenance, Repair or Alteration
- 7. Demolition
- 8. Building Service Contract

8. OCCUPATION FOR PROJECT :

- | | |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <input type="checkbox"/> Construction (Building, Heavy Highway/Sewer/Water) | <input type="checkbox"/> Guards, Watchmen |
| <input type="checkbox"/> Tunnel | <input type="checkbox"/> Janitors, Porters, Cleaners, Elevator Operators |
| <input type="checkbox"/> Residential | <input type="checkbox"/> Moving furniture and equipment |
| <input type="checkbox"/> Landscape Maintenance | <input type="checkbox"/> Trash and refuse removal |
| <input type="checkbox"/> Elevator maintenance | <input type="checkbox"/> Window cleaners |
| <input type="checkbox"/> Exterminators, Fumigators | <input type="checkbox"/> Other (Describe) |
| <input type="checkbox"/> Fire Safety Director, NYC Only | |

9. Has this project been reviewed for compliance with the Wicks Law involving separate bidding? YES NO

10. Name and Title of Requester _____

Signature



NEW YORK STATE DEPARTMENT OF LABOR
Bureau of Public Work - Debarment List

**LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE
AWARDED ANY PUBLIC WORK CONTRACT**

Under Article 8 and Article 9 of the NYS Labor Law, a contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work or public building service contract/sub-contract with the state, any municipal corporation or public body for a period of five (5) years from the date of debarment when:

- Two (2) final determinations have been rendered within any consecutive six-year (6) period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements
- One (1) final determination involves falsification of payroll records or the kickback of wages and/or supplements

NOTE: The agency issuing the determination and providing the information, is denoted under the heading 'Fiscal Officer'. DOL = NYS Dept. of Labor; NYC = New York City Comptroller's Office; AG = NYS Attorney General's Office; DA = County District Attorney's Office.

A list of those barred from bidding, or being awarded, any public work contract or subcontract with the State, under section 141-b of the Workers' Compensation Law, may be obtained at the following link, on the NYS DOL Website:

<https://dbr.labor.state.ny.us/EDList/searchPage.do>

NYS DOL Bureau of Public Work Debarment List 11/17/2017

Article 8

AGENCY	Fiscal Officer	FEIN	EMPLOYER NAME	EMPLOYER DBA NAME	ADDRESS	DEBARMENT START DATE	DEBARMENT END DATE
DOL	DOL		4618 FOSTER AVE LLC		C/O KAHAN & KAHAN 225 BROADWAY-SUITE 715NEW YORK NY 10007	02/05/2013	02/05/2018
DOL	DOL	****0996	A-1 CONSTRUCTION & RENOVATION INC		1973 81ST ST - SUITE A-5 BROOKLYN NY 11214	01/08/2015	01/08/2020
DOL	NYC		ABDUL KARIM		C/O NORTH AMERICAN IRON W 1560 DECATUR STREETRIDGWOOD NY 11385	05/15/2015	05/15/2020
DOL	DOL	****8488	ABELCRAFT OF NEW YORK CORP		640 ASHFORD AVENUE ARDSLEY NY 10502	08/27/2013	08/27/2018
DOL	DOL	****1219	ABSOLUTE GENERAL CONTRACTING INC		1229 AVENUE U BROOKLYN NY 11229	01/28/2013	01/28/2018
DOL	DOL	****4539	ACCOMPLISHED WALL SYSTEMS INC		112 OSCAWANA HEIGHTS ROAD PUTNAM VALLEY NY 10542	08/27/2013	08/27/2018
DOL	DOL	****8018	ACCURATE MECHANICAL LLC		9547 BUSTLETON AVENUE PHILADELPHIA PA 19115	02/05/2014	02/05/2019
DOL	DOL		ACCURATE MECHANICAL OF PHILADELPHIA LLC		9547 BUSTLETON AVENUE PHILADELPHIA PA 19115	02/05/2014	02/05/2019
DOL	DOL	****3344	ACT INC		6409 LAND O LAKES BLVD LAND O LAKES FL 34638	11/10/2015	11/10/2020
DOL	NYC		ADRIANA SELA	C/O COLONIAL ROOFING COMPANY INC	247 48TH STREET BROOKLYN NY 11220	02/05/2014	02/05/2019
DOL	DOL	****1687	ADVANCED SAFETY SPRINKLER INC		261 MILL ROAD P O BOX 296EAST AURORA NY 14052	07/29/2015	07/29/2020
DOL	DOL	****2538	AGG MASONRY INC		160 72ND ST - SUITE 721 BROOKLYN NY 11209	03/19/2013	03/19/2018
DOL	DOL		AJ TORCHIA		10153 ROBERTS RD SAUQUOIT NY 13456	08/09/2016	08/09/2021
DOL	DOL		ALISHER KARIMOV		C/O AGG MASONRY INC 7105 3RD AVENUEBROOKLYN NY 11209	03/19/2013	03/19/2018
DOL	DOL	****3344	ALL CATASTROPHE CONSTRUCTION TEAM INC	ACT INC	6409 LAND O LAKES BLVD LAND O LAKES FL 34638	11/10/2015	11/10/2020
DOL	DOL	****8740	ALLSTATE ENVIRONMENTAL CORP		C/O JOSE MONTAS 27 BUTLER PLACEYONKERS NY 10710	03/18/2011	03/19/2020
DOL	DOL		AMADEO J TORCHIA	TORCHIA'S HOME IMPROVEMEN T	10153 ROBERTS RD SAUQUOIT NY 13456	08/09/2016	08/09/2021
DOL	DOL	****4274	AMERICAN STEEL MECHANICAL INC		693 PAINTER STREET MEDIA PA 19063	02/20/2013	02/20/2018
DOL	DOL		ANDREW DIPAUL		C/O CONSOLIDATED INDUSTRI 2051 ROUTE 44/55MODENA NY 12548	12/11/2012	12/11/2017
DOL	NYC		ANDRZEJ WROBEL		24 CONGRESS LANE SOUTH RIVER NJ 08882	05/01/2013	05/01/2018
DOL	NYC		ANISUL ISLAM		C/O RELIANCE GENERAL CONS 644 OCEAN PARKWAYBROOKLYN NY 11230	09/02/2015	09/02/2020
DOL	DOL	****7004	ANNEX CONTRACTING LTD		3005 WYNSUM AVENUE MERRICK NY 11566	08/18/2014	08/18/2019
DOL	DOL	****7004	ANNEX GENERAL CONTRACTING INC		3005 WYNSUM AVENUE MERRICK NY 11566	08/18/2014	08/18/2019
DOL	DA		ANTHONY CARDINALE		58-48 59TH STREET MASPETH NY 11378	05/16/2012	05/08/2020
DOL	DOL		ANTHONY J MINGARELLI JR		C/O T & T CONCRETE INC 2560 HAMBURG TURNPIKELACKAWANNA NY 14218	07/08/2015	07/08/2020
DOL	DOL		ANTHONY PERGOLA		3 WEST MAIN ST/SUITE 208 ELMSFORD NY 10323	01/23/2017	01/23/2022
DOL	DOL	****3020	APCO CONTRACTING CORP		24 SOUTH MARYLAND AVENUE PORT WASHINGTON NY 11050	09/24/2012	09/02/2020
DOL	DOL	****3219	APOLLO CONSTRUCTION SERVICES CORP	APOLLO PAINTING CO	157 TIBBETTS ROAD YONKERS NY 10705	03/12/2014	03/12/2019
DOL	DOL		APOLLO PAINTING CO		157 TIBBETTS ROAD YONKERS NY 10705	03/12/2014	03/12/2019

NYS DOL Bureau of Public Work Debarment List 11/17/2017

Article 8

DOL	DOL	****3295	APOLLO PAINTING CORP		3 ALAN B SHEPART PLACE YONKERS NY 10705	03/12/2014	03/12/2019
DOL	AG	****0194	APPLIED CONSTRUCTION INC		46 RUGBY ROAD WESTBURY NY 11590	11/20/2013	11/20/2018
DOL	NYC	****8403	AQUA JET PAINTING CORP		10 VIKING DRIVE WEST ISLIP NY 11795	04/16/2014	04/16/2019
DOL	NYC	****9232	ARKAY CONSTRUCTION INC		102-104 GREYLOCK AVENUE BELLEVILLE NJ 07109	07/15/2015	07/15/2020
DOL	DOL	****3953	ASCAPE LANDSCAPE & CONSTRUCTION CORP		634 ROUTE 303 BLAUVELT NY 10913	07/26/2012	11/19/2018
DOL	NYC	****4779	ASTORIA GENERAL CONTRACTING CORP		35-34 31ST STREET LONG ISLAND CITY NY 11106	09/02/2015	09/02/2020
DOL	NYC	****7217	ASTRO COMMUNICATIONS OF NY CORP		79 ALEXANDER AVE- STE 36A BRONX NY 10454	10/30/2015	10/30/2020
DOL	NYC	****6046	ATLANTIC SUN CONSTRUCTION CORP		58-46 59TH AVENUE MASPETH NY 11378	05/08/2015	05/08/2020
DOL	NYC		AUDLEY O'BRIEN		1273 NORTH AVENUE/#1 CP NEW ROCHELLE NY 10804	04/07/2015	04/07/2020
DOL	DOL		AVIS R HILL		3510 HICKORY WALK LANE ELLENWOOD GA 32094	01/22/2015	01/22/2020
DOL	AG		AVTAR SINGH		116-24 127TH STREET SOUTH OZONE PARK NY 11420	12/22/2015	12/22/2020
DOL	AG		BALDEV SINGH		116-24 127TH STREET SOUTH OZONE PARK NY 11420	12/22/2015	12/22/2020
DOL	DOL		BARBARA CASSIDY		7 BLENIS PLACE VALHALLA NY 10595	04/02/2015	04/02/2020
DOL	DOL		BARRY KINNEY		6409 LAND O LAKES BLVD LAND O LAKES FL 34638	11/10/2015	11/10/2020
DOL	NYC	****3915	BEACON RESTORATION INC		SUITE B-8 782 PELHAM PARKWAY SOUTHBRONX NY 10462	04/21/2016	04/21/2021
DOL	DOL		BEVERLY F WILLIAMS		1238 PRESIDENT STREET BROOKLYN NY 11225	11/18/2013	11/18/2018
DOL	DOL	****8551	BRANDY'S MASONRY		216 WESTBROOK STREET P O BOX 304SAYRE PA 18840	08/09/2016	08/09/2021
DOL	NYC	****6555	BROOKLYN WELDING CORP		1273 NORTH AVENUE/ #1 CP NEW ROCHELLE NY 10804	04/07/2015	04/07/2020
DOL	DOL	****1449	BRRESTORATION NY INC		140 ARCADIA AVENUE OSWEGO NY 13126	09/12/2016	09/12/2021
DOL	DOL		BRUCE MORSEY		C/O KENT HOLLOW SIDING LL 29A BRIDGE STREETNEW MILFORD CT 06776	01/15/2016	01/15/2021
DOL	DOL	****6156	C & J LANDSCAPING & MAINTENANCE INC		520 PINE HILL ROAD CHESTER NY 10940	06/23/2014	06/23/2019
DOL	DOL	****8809	C.B.E. CONTRACTING CORPORATION		310 MCGUINNESS BLVD GREENPOINT NY 11222	03/07/2017	03/07/2022
DOL	DOL		CARIBBEAN POOLS		C/O DOUGLAS L MALARKEY 64 VICTORIA DRIVEBINGHAMTON NY 13904	02/04/2016	02/04/2021
DOL	NYC	****9172	CASSIDY EXCAVATING INC		14 RAILROAD AVENUE VALHALLA NY 10595	05/15/2014	04/02/2020
DOL	DOL	****6745	CATSKILL FENCE INSTALLATIONS INC		5445 ROUTE 32 CATSKILL NY 12414	08/22/2014	08/22/2019
DOL	DOL	****8530	CAZ CONTRACTING CORP		37-11 35TH AVENUE LONG ISLAND CITY NY 11101	08/26/2013	08/26/2018
DOL	DOL	****8809	CBE CONTRACTING CORP		142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022
DOL	DOL	****5556	CERTIFIED INSTALLERS INC		113 N MAPLE AVENUE GREENSBURG PA 15601	02/21/2013	02/21/2018
DOL	DOL	****7655	CHAMPION CONSTRUCTION SERVICES CORP		2131 SCHENECTADY AVENUE BROOKLYN NY 11234	11/18/2015	11/18/2020
DOL	NYC		CHARLES CASSIDY JR		14 RAILROAD AVENUE VALHALLA NY 10595	05/15/2014	04/02/2020
DOL	DOL		CHARLES ZIMMER JR		216 WESTBROOK STREET P O BOX 304SAYRE PA 18840	08/09/2016	08/09/2021
DOL	DOL		CHRISTINE J HEARNE		C/O CJ-HEARNE CONSTRUCTIO 131 PONCE DE LEON AVE NEATLANTA GA 30308	12/01/2015	12/01/2020
DOL	DOL	****3360	CITY LIMITS GROUP INC		2279 HOLLERS AVENUE BRONX NY 10475	01/07/2014	06/23/2019
DOL	DOL	****0671	CJ-HEARNE CONSTRUCTION CO		SUITE 204 131 PONCE DE LEON AVENUEATLANTA GA 30308	12/01/2015	12/01/2020
DOL	NYC	****2905	COLONIAL ROOFING COMPANY INC		247 48TH STREET BROOKLYN NY 11220	02/05/2014	02/05/2019

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DOL	NYC	****3182	COLORTECH INC		5990 58TH AVENUE MASPETH NY 11378	11/18/2013	11/18/2018
DOL	DOL	****2703	CONKLIN'S TECH- MECHANICAL INC		5 PARKER AVENUE POUGHKEEPSIE NY 12601	03/25/2014	03/25/2019
DOL	DOL	****4175	CONSOLIDATED INDUSTRIAL SERVICES INC		2051 ROUTE 44/55 MODENA NY 12548	12/11/2012	01/28/2018
DOL	DOL		CONSTANTINOS ZERVAS		37-11 35TH AVENUE LONG ISLAND CITY NY 11101	08/26/2013	08/26/2018
DOL	NYC	****4468	CRAFT CONTRACTING GROUP INC		3256 BRUNER AVENUE BRONX NY 10469	07/29/2014	07/29/2019
DOL	NYC	****8507	CRAFT FENCE INC		3256 BRUNER AVENUE BRONX NY 10469	07/29/2014	07/29/2019
DOL	NYC	****2164	CREATIVE TRUCKING INC		58-83 54TH STREET MASPETH NY 11378	02/26/2016	02/26/2021
DOL	DOL	****7761	D L MALARKEY CONSTRUCTION		64 VICTORIA DRIVE BINGHAMTON NY 13904	02/04/2016	02/04/2021
DOL	DOL	****7888	D L MALARKEY CONSTRUCTION INC		64 VICTORIA DRIVE BINGHAMTON NY 13904	02/04/2016	02/04/2021
DOL	DOL	****5629	DAKA PLUMBING AND HEATING LLC		2561 ROUTE 55 POUGHQUAG NY 12570	02/19/2016	02/19/2021
DOL	DOL		DANICA IVANOSKI		61 WILLETT ST. PASSAIC NJ 07503	10/26/2016	10/26/2021
DOL	DOL		DARYL T RIEKS		C/O RIEKS CONTRACTING LLC 4804 GAHWILER RODAUBURN NY 13021	05/01/2015	05/01/2020
DOL	NYC	****7707	DASSLE CONTRACTING INC		213-37 39TH AVE/SUITE 120 BAYSIDE NY 11360	05/08/2015	05/08/2020
DOL	DOL		DAVID MARTINEZ		C/O EMPIRE TILE INC 6 TREMONT COURTHUNTINGTON STATION NY 11746	03/08/2016	03/08/2021
DOL	NYC		DAWN AVILA AKA DAWN BECHTOLD		1ST FLOOR STORE FRONT 88-10 LITTLE NECK PARKWAYFLORAL PARK NY 11001	06/24/2014	06/24/2019
DOL	NYC		DAWN BECHTOLD AKA DAWN AVILA		1ST FLOOR STORE FRONT 88-10 LITTLE NECK PARKWAYFLORAL PARK NY 11001	06/24/2014	06/24/2019
DOL	DOL		DEAN ROBBINS III		212 OXFORD WAY SCHENECTADY NY 12309	12/11/2012	09/16/2018
DOL	DOL		DEBBIE STURDEVANT		29 MAPLEWOOD DRIVE BINGHAMTON NY 13901	02/21/2017	02/21/2022
DOL	NYC	****3865	DECOMA BUILDING CORPORATION		134 EVERGREEN PL/STE 101 EAST ORANGE NJ 07018	12/30/2013	12/30/2018
DOL	DOL		DEDA GAZIVODAN		C/O DAKA PLUMBING AND H 2561 ROUTE 55POUGHQUAG NY 12570	02/19/2016	02/19/2021
DOL	DOL	****1446	DELTA CONTRACTING PAINTING AND DECORATING INC		437 SUNRISE HIGHWAY WEST BABYLON NY 11707	08/12/2013	08/12/2018
DOL	DOL	****3538	DELTA CONTRACTING PAINTING AND DESIGN INC		75 MCCULLOCH DRIVE DIX HILLS NY 11746	10/19/2010	08/12/2018
DOL	DOL		DENNIS SCHWANDTNER		C/O YES SERVICE AND REPAI 145 LODGE AVEHUNTINGTON STATION NY 11476	08/09/2016	08/09/2021
DOL	DOL	****9868	DESANTIS ENTERPRISES		161 OSWEGO RIVER ROAD PHOENIX NY 13135	09/24/2013	11/18/2018
DOL	DOL		DF CONTRACTORS OF ROCHESTER, INC.		1835 DAANSEN RD. PALMYRA NY 14522	05/16/2017	05/16/2022
DOL	DOL		DF CONTRACTORS, INC.		1835 DAANSEN RD. PALMYRA NY 14522	05/16/2017	05/16/2022
DOL	DOL	****9252	DI BERNARDO TILE AND MARBLE CO INC		15 WALKER WAY ALBANY NY 12205	03/21/2014	03/21/2019
DOL	DOL		DIANE DEEVER		731 WARWICK TURNPIKE HEWITT NJ 07421	06/25/2012	12/11/2017
DOL	NYC		DIMITRIOS KOUTSOUKOS		C/O ASTORIA GENERAL CONTR 35-34 31ST STREETLONG ISLAND CITY NY 11106	09/02/2015	09/02/2020
DOL	DOL	****3242	DONALD R. FORSAY	DF LAWN SERVICE	1835 DAANSEN RD. PALMYRA NY 14522	05/16/2017	05/16/2022
DOL	DOL		DONALD R. FORSAY		1835 DAANSEN RD. PALMYRA NY 14522	05/16/2017	05/16/2022
DOL	DOL		DORIS SKODA		C/O APCO CONTRACTING CORP 24 SOUTH MARYLAND AVENUEPORT WASHINGTON NY 11050	09/24/2012	09/02/2020

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DOL	NYC	****7404	DOSANJH CONSTRUCTION CORP		9439 212TH STREET QUEENS VILLAGE NY 11428	02/25/2016	02/25/2021
DOL	DOL		DOUGLAS L MALARKEY	MALARKEY CONSTRUCTION	64 VICTORIA DRIVE B INGHAMTON NY 13904	02/04/2016	02/04/2021
DOL	DOL	****6982	DUFOUR GROUP INC	DUFOUR MASONRY	353 WEST 56TH STREET #7M NEW YORK NY 10019	06/10/2014	06/10/2019
DOL	DOL		DUFOUR MASONRY		353 WEST 56TH ST #7M NEW YORK NY 10019	06/10/2014	06/10/2019
DOL	DOL		DUFOUR MASONRY & RESTORATION INC		353 WEST 56TH STREET #7M NEW YORK NY 10019	06/10/2014	06/10/2019
DOL	DOL	****5840	DYNA CONTRACTING INC		363 88TH STREET BROOKLYN NY 11209	11/18/2013	11/18/2018
DOL	DOL		E C WEBB		6409 LAND O LAKES BLVD LAND O LAKES FL 34638	11/10/2015	11/10/2020
DOL	DOL		EARL GALBREATH		640 ASHFORD AVENUE ARDSLEY NY 10502	08/27/2013	08/27/2018
DOL	DOL		EARL L WILSON	WILSON BROTHER DRYWALL CONTRACTORS	36 ABERSOLD STREET ROCHESTER NY 14621	08/31/2015	08/31/2020
DOL	DOL	****1496	EAST COAST DRYWALL INC		1238 PRESIDENT STREET BROOKLYN NY 11225	11/18/2013	11/18/2018
DOL	NYC		EDWARD MENKEN		C/O AQUA JET PAINTING 10 VIKING DRIVEWEST ISLIP NY 11795	04/16/2014	04/16/2019
DOL	NYC	****0900	EF PRO CONTRACTING INC		147 BROOME AVENUE ATLANTIC BEACH NY 11509	03/03/2014	03/03/2019
DOL	NYC		EFSTRATIOS BERNARDIS		23-73 48TH STREET LONG ISLAND CITY NY 11103	04/24/2014	04/24/2019
DOL	DOL		ELIZABETH RAMADANI		C/O RAMADA CONSTRUCTION 80 SAVO LOOPSTATEN ISLAND NY 10309	01/07/2014	01/07/2019
DOL	DOL		ELLEN DESANTIS	DESANTIS ENTERPRISES	161 OSWEGO RIVER ROAD PHOENIX NY 13135	09/24/2013	11/18/2018
DOL	DOL	****0780	EMES HEATING & PLUMBING CONTR		5 EMES LANE MONSEY NY 10952	01/20/2002	01/20/3002
DOL	AG		EMILIO FRANZA		90 JUNIUS STREET BROOKLYN NY 11212	01/23/2014	01/23/2019
DOL	DOL		EMPIRE CONCRETE SERVICES LLC		101 SULLYS TRAIL/SUITE 20 PITTSFORD NY 14534	11/18/2013	01/07/2019
DOL	DOL	****0511	EMPIRE CONCRETE SYSTEMS LLC		101 SULLYS TRAIL/ SUITE 2 PITTSFORD NY 14534	11/18/2013	01/07/2019
DOL	DOL	****2353	EMPIRE CONSTRUCTORS LLC		101 SULLYS TRAIL/SUITE 20 PITTSFORD NY 14534	11/18/2013	01/07/2019
DOL	DOL		EMPIRE PRECAST LLC		101 SULLYS TRAIL/SUITE 20 PITTSFORD NY 14534	11/18/2013	01/07/2019
DOL	DOL	****3270	EMPIRE TILE INC		6 TREMONT COURT HUNTINGTON STATION NY 11746	03/08/2016	03/08/2021
DOL	DOL		ERIKA BARNETT		253 BEACH BREEZE LANE UNIT BARVERNE NY 11692	02/05/2013	02/05/2018
DOL	DOL		ESTEVEES & FRAGA CONSTRUCTION CO INC		986 MADISON AVENUE PATERSON NJ 07501	01/03/2013	01/03/2018
DOL	DOL		ESTEVEES & FRAGA INC		986 MADISON AVENUE PATERSON NJ 07501	01/03/2013	01/03/2018
DOL	NYC		EVERTON CARLESS		134 EVERGREEN PL/STE 101 EAST ORANGE NJ 07018	12/30/2013	12/30/2018
DOL	DOL	****7403	F & B PAINTING CONTRACTING INC		2 PARKVIEW AVENUE HARRISON NY 10604	09/26/2016	09/26/2021
DOL	DOL		F KALAFATIS		2279 HOLLERS AVENUE BRONX NY 10475	01/07/2014	06/23/2019
DOL	DOL		FANTASTIC PAINTING		493 LANSING ROAD FULTONVILLE NY 12072	11/18/2013	11/18/2018
DOL	DOL		FAY MATTHEW		C/O CHAMPION CONSTRUCTION 2131 SCHENECTADY AVENUEBROOKLYN NY 11234	11/18/2015	11/18/2020
DOL	DOL		FAZIA GINA ALI-MOHAMMED	C/O CHAMPION CONSTRUCTION	2131 SCHENECTADY AVENUE BROOKLYN NY 11234	11/18/2015	11/18/2020
DOL	DOL	****1311	FLOZ-ON PAINTING & DECORATING INC		12 DUNDERBERG ROAD TOMKINS NY 10986	10/16/2013	10/16/2018
DOL	DOL	****8961	FLOZ-ON PAINTING INC		12 DUNDERBERG ROAD TOMKINS NY 10986	10/16/2013	10/16/2018

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DOL	DOL		FMS		4 LEGHORN COURT NEW YORK NY 11746	11/28/2012	11/28/2017
DOL	DOL		FRAN MICELI		2279 HOLLERS AVENUE BRONX NY 10475	01/07/2014	06/23/2019
DOL	DOL		FRANCES KALAFATIS		2279 HOLLERS AVENUE BRONX NY 10475	01/07/2014	06/23/2019
DOL	DOL		FRANCES KALAFATIS-MICELI		2279 HOLLERS AVENUE BRONX NY 10475	01/07/2014	06/23/2019
DOL	DOL		FRANK BENEDETTO		C/O F & B PAINTING CONTRA 2 PARKVIEW AVENUE HARRISON NY 10604	09/26/2016	09/26/2021
DOL	DOL		FRANK DEMARTINO		101-61 99TH STREET OZONE PARK NY 11416	02/15/2017	02/15/2022
DOL	DOL		FRANK DEMARTINO		101-61 99TH STREET OZONE PARK NY 11416	02/15/2017	02/15/2022
DOL	DOL		FRANK J MERCANDO		134 MURRAY AVENUE YONKERS NY 10704	12/11/2009	02/03/2019
DOL	DOL		FRANK MICELI JR	C/O FRANK MICELI JR CONTRACTIN G INC	19 CLIFF STREET NEW ROCHELLE NY 10801	10/16/2013	10/16/2018
DOL	DOL	*****1321	FRANK MICELI JR CONTRACTING INC		19 CLIFF STREET NEW ROCHELLE NY 10801	10/16/2013	10/16/2018
DOL	DOL	*****2724	FRESH START PAINTING CORP		157 TIBBETS ROAD YONKERS NY 10705	03/12/2014	03/12/2019
DOL	DOL		G FUCCI CONSTRUCTION SERVICES		3 ALAN B SHEPARD PLACE YONKERS NY 10705	03/12/2014	03/12/2019
DOL	DOL	*****6767	G FUCCI PAINTING INC		C/O SPIEGEL & UTRERA 1 MAIDEN LANE - 5TH FL NEW YORK NY 10038	03/12/2014	03/12/2019
DOL	DOL	*****4546	GAF PAINTING LLC		157 TIBBETS ROAD YONKERS NY 10705	03/12/2014	03/12/2019
DOL	DOL		GALINDA ROTENBERG		C/O GMDV TRANS INC 67-48 182ND STREET FRESH MEADOWS NY 11365	06/24/2016	06/24/2021
DOL	DOL		GARDEN STATE PAINTING		157 TIBBETS ROAD YONKERS NY 10705	03/12/2014	03/12/2019
DOL	DOL		GARY MCDOWELL	GM CONSTRUCTI ON & LAWN CARE SERVICE	76 PLEASANT STREET WELLSVILLE NY 14895	06/11/2013	06/11/2018
DOL	DOL		GEORGE DI BERNARDO		C/O DI BERNARDO TILE 15 WALKER WAY ALBANY NY 12205	03/21/2014	03/21/2019
DOL	DA		GEORGE LUCEY		150 KINGS STREET BROOKLYN NY 11231	01/19/1998	01/19/2998
DOL	DOL	*****1075	GLOBAL TANK CONSTRUCTION LLC		P O BOX 1238 SALINA OK 74365	11/28/2012	11/28/2017
DOL	DOL	*****0878	GM CONSTRUCTION & LAWN CARE SERVICE		76 PLEASANT STREET WELLSVILLE NY 14895	06/11/2013	06/11/2018
DOL	DOL	*****5674	GMDV TRANS INC		67-48 182ND STREET FRESH MEADOWS NY 11365	06/24/2016	06/24/2021
DOL	DOL	*****0090	GOLDS FLOORING INSTALLATIONS INC		25 HAMILTON ROAD MONTICELLO NY 12701	10/16/2013	10/16/2018
DOL	DOL		GREGORY A FUCCI		C/O PAF PAINTING SERVICES 157 TIBBETS ROAD YONKERS NY 10705	03/12/2014	03/12/2019
DOL	DOL		GREGORY FUCCI JR		C/O APOLLO CONSTRUCTION 157 TIBBETS ROAD YONKERS NY 10705	03/12/2014	03/12/2019
DOL	DOL	*****9456	GUILLO CONTRACTING CORP		P O BOX 229 CALVERTON NY 11933	07/08/2013	07/08/2018
DOL	NYC	*****0346	H N H CONTRACTORS CORP		4558 BROADWAY # 6 NEW YORK NY 10040	08/04/2014	08/04/2019
DOL	DOL		HALSSAM FOSTOK		5 HANSEN PLACE WAYNE NJ 07470	09/18/2013	09/18/2018
DOL	NYC		HAMEEDUL HASAN		240 HOME STREET TEANECK NJ 07666	08/04/2014	08/04/2019
DOL	AG	*****9918	HARA ELECTRIC CORP		2461 47TH STREET ASTORIA NY 11103	09/26/2013	09/26/2018
DOL	NYC		HARMEL SINGH		15 CLINTON LANE HICKSVILLE NY 11801	02/25/2016	02/25/2021
DOL	NYC		HAROLD KUEMMEL		58-83 54TH STREET MASPETH NY 11378	02/26/2016	02/26/2021
DOL	AG		HARVINDER SINGH PAUL		90 JUNIUS STREET BROOKLYN NY 11212	01/23/2014	01/23/2019

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DOL	DOL		HENRY VAN DALRYMPLE		2663 LANTERN LANE ATLANTA GA 30349	12/01/2015	12/01/2020
DOL	DOL	****6370	HILLIANO CONSTRUCTION & ELECTRICAL INC		354 MAGNOLIA STREET ROCHESTER NY 14611	01/22/2015	01/22/2020
DOL	DOL	****8282	IDEMA DEVELOPMENT INC		91 COLLEGE AVENUE POUGHKEEPSIE NY 12603	12/04/2015	12/04/2020
DOL	DOL	****8282	IDEMA GENERAL CONTRACTORS INC		91 COLLEGE AVENUE POUGHKEEPSIE NY 12603	12/04/2015	12/04/2020
DOL	DOL	****7001	INTEGRATED CONSTRUCTION & POWER SYSTEMS INC		SUITE 100 2105 W GENESEE STREETS YRACUSE NY 13219	01/06/2016	01/06/2021
DOL	DOL		ISABEL FRAGA		C/O THREE FRIENDS CONSTR 986 MADISON AVENUE PATERSON NJ 07501	01/03/2013	01/03/2018
DOL	AG	****0000	J A M CONSTRUCTION CORP		SUITE 125 265 SUNRISE HIGHWAY ROCKVILLE CENTRE NY 10457	04/07/2016	04/07/2021
DOL	DOL	****7598	J M RICH LLC		P O BOX 268 STILLWATER NY 12170	09/16/2013	03/21/2019
DOL	DOL	****3478	J N P CONSTRUCTION CORP		50 LOUIS COURT P O BOX 1907 SOUTH HACKENSACK NY 07606	03/21/2014	03/21/2019
DOL	DOL		J N RICH LLC		P O BOX 268 STILLWATER NY 12170	09/16/2013	03/21/2019
DOL	DOL	****4910	J V MAGIC TOUCH CORPORATION		94-25 57TH AVENUE, APT 5G ELMHURST NY 11373	01/12/2015	01/12/2020
DOL	DOL		JACQUELINE HOWE		C/O FLOZ-ON PAINTING INC 12 DUNDERBERG ROAD TOMKINS NY 10986	10/16/2013	10/16/2018
DOL	DOL	****8627	JAG I LLC		635 LUZERNE ROAD QUEENSBURY NY 12804	09/16/2013	09/16/2018
DOL	DOL	****2868	JAG INDUSTRIES INC		175 BROAD ST - SUITE 320 GLENS FALLS NY 12801	09/16/2013	09/16/2018
DOL	DOL		JAMES B RHYNDERS		91 COLLEGE AVENUE POUGHKEEPSIE NY 12603	12/04/2015	12/04/2020
DOL	DOL		JAMES BOYCE		C/O EMPIRE CONCRETE SYST 101 SULLYS TRAIL/SUITE 20 PITTSFORD NY 14534	11/18/2013	01/07/2019
DOL	DOL		JAMES E RHYNDERS		91 COLLEGE AVENUE POUGHKEEPSIE NY 12603	12/04/2015	12/04/2020
DOL	AG		JAMES FALCONE		SUITE 125 265 SUNRISE HIGHWAY ROCKVILLE CENTRE NY 10457	04/07/2016	04/07/2021
DOL	DOL		JAMES RHYNDERS SR		91 COLLEGE AVENUE POUGHKEEPSIE NY 12603	12/04/2015	12/04/2020
DOL	DOL		JAMES SICKAU		3090 SHIRLEY ROAD NORTH COLLINS NY 14111	04/19/2011	07/08/2020
DOL	DOL		JASON M RICH		P O BOX 268 STILLWATER NY 12170	09/16/2013	03/21/2019
DOL	DOL		JASON W MILLIMAN		C/O ROCHESTER ACOUSTICAL P O BOX 799 HILTON NY 14468	02/19/2016	02/19/2021
DOL	DOL		JAY PRESUTTI		C/O CONSOLIDATED INDUSTRI 2051 ROUTE 44/55 MODENA NY 12548	01/28/2013	01/28/2018
DOL	DOL		JEFF P BRADLEY		520 PINE HILL ROAD CHESTER NY 10940	06/23/2014	06/23/2019
DOL	NYC		JEFFREY CASSIDY		14 RAILROAD AVENUE VALHALLA NY 10595	05/15/2014	04/02/2020
DOL	DOL		JERALD HOWE		C/O FLOZ-ON PAINTING INC 12 DUNDERBERG ROAD TOMKINS NY 10986	10/16/2013	10/16/2018
DOL	DOL		JEROME LACITIGNOLA		C/O CATSKILL FENCE INSTAL 5445 ROUTE 32 CATSKILL NY 12414	08/22/2014	08/22/2019
DOL	DOL		JESSICA WHITESIDE		C/O BRRESTORATION NY INC 140 ARCADIA AVENUE OSWEGO NY 13126	09/12/2016	09/12/2021
DOL	DOL		JOHN DESCUL		437 SUNRISE HIGHWAY A WEST BABYLON NY 11704	08/12/2013	08/12/2018
DOL	DOL		JOHN H LEE	JOHN LEE QUALITY PAVING	67 WILER ROAD HILTON NY 14468	01/28/2013	01/28/2018
DOL	DOL	****1749	JOHN LEE QUALITY PAVING		67 WILER ROAD HILTON NY 14468	01/28/2013	01/28/2018

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DOL	DOL		JON E DEYOUNG		261 MILL ROAD P O BOX 296 EAST AURORA NY 14052	07/29/2015	07/29/2020
DOL	DOL		JORGE VILLALOBOS		94-25 57TH AVENUE - APT 5 ELMHURST NY 11373	01/12/2015	01/12/2020
DOL	DOL		JOSE MONTAS		27 BUTLER PLACE YONKERS NY 10710	03/18/2011	03/19/2020
DOL	AG		JOSEPH FALCONE		SUITE 125 265 SUNRISE HIGHWAY ROCKVILLE CENTRE NY 10457	04/07/2016	04/07/2021
DOL	DOL	****9273	JOSEPH M LOVETRO		P O BOX 812 BUFFALO NY 14220	08/09/2016	08/09/2021
DOL	DOL		JOSEPH MARTONE		112 OSCAWANA HEIGHTS ROAD PUTNAM VALLEY NY 10542	08/27/2013	08/27/2018
DOL	DOL		JOSHUA DEBOWSKY		9547 BUSTLETON AVENUE PHILADELPHIA PA 19115	02/05/2014	02/05/2019
DOL	DOL		JOYA MUSCOLINO		10 ST CHARLES STREET THORNWOOD NY 10594	09/03/2013	09/03/2018
DOL	DOL		JUANA MARTINEZ		C/O LEAD CONSTRUCTION 27 BUTLER PLACE YONKERS NY 10710	03/19/2015	03/19/2020
DOL	DOL	****4340	JUBCO SITE DEVELOPMENT LLC		462 LAKEVIEW AVENUE VALHALLA NY 10595	12/16/2013	12/16/2018
DOL	DOL		JULIUS AND GITA BEHREND		5 EMES LANE MONSEY NY 10952	11/20/2002	11/20/3002
DOL	DOL	****5062	K R F SITE DEVELOPMENT INC		375 LAKE SHORE DRIVE PUTNAM VALLEY NY 10579	01/23/2017	01/23/2022
DOL	DOL		KAREN HARTMAN		C/O GUILLO CONTRACTING P O BOX 229 CALVERTON NY 11933	07/08/2013	07/08/2018
DOL	NYC		KATHLEEN SELA	C/O COLONIAL ROOFING COMPANY INC	247 48TH STREET BROOKLYN NY 11220	02/05/2014	02/05/2019
DOL	DOL		KEITH SCHEPIS		C/O KJS HAULING AND HOME 95 MAPLE AVENUE NEW CITY NY 10956	04/15/2013	04/15/2018
DOL	DOL		KEN DEAVER		731 WARWICK TURNPIKE HEWITT NJ 07421	06/25/2012	12/11/2017
DOL	DOL		KENNETH FIORENTINO		375 LAKE SHORE DRIVE PUTNAM VALLEY NY 10579	01/23/2017	01/23/2022
DOL	DOL	****9732	KENT HOLLOW SIDING LLC		29A BRIDGE STREET NEW MILFORD CT 06776	01/15/2016	01/15/2021
DOL	DOL		KEVIN BABCOCK JR		P O BOX 46 THOMPSON RIDGE NY 10985	08/22/2014	08/22/2019
DOL	DOL		KEVIN M BABCOCK		P O BOX 46 THOMPSON RIDGE NY 10985	08/22/2014	08/22/2019
DOL	DOL		KIM SOROCENSKI		C/O SOLUTION MATTERS INC 198 NORWOOD ROADPORT JEFFERSON NY 11776	11/19/2015	11/19/2020
DOL	DOL	****2463	KJS HAULING AND HOME IMPROVEMENT INC		95 MAPLE AVENUE NEW CITY NY 10956	04/15/2013	04/15/2018
DOL	AG		KOSTAS "GUS" ANDRIKOPOULOS		2461 47TH STREET ASTORIA NY 11103	09/26/2013	09/26/2018
DOL	DA	****8816	LAKE CONSTRUCTION AND DEVELOPMENT CORPORATION		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL	****6224	LAKESIDE FIRE SPRINKLERS LLC		125 CHAUTAUQUA AVENUE LAKEWOOD NY 14750	06/24/2015	06/24/2020
DOL	AG	****4643	LALO DRYWALL, INC.		221 OLD FORD ROAD NEW PLATZ NY 12561	05/20/2016	05/20/2021
DOL	DOL	****4505	LARAPINTA ASSOCIATES INC		29 MAPLEWOOD DRIVE BINGHAMTON NY 13901	02/21/2017	02/21/2022
DOL	DOL		LAURI MARTONE		112 OSCAWANA HEIGHTS ROAD PUTNAM VALLEY NY 10542	08/27/2013	08/27/2018
DOL	DOL		LAVERN GLAVE		C/O RAW POWER ELECTRIC 3 PARK CIRCLE MIDDLETOWN NY 10940	09/15/2014	09/15/2019
DOL	DOL		LAWRENCE J RUGGLES		P O BOX 371 ROUND LAKE NY 12151	05/12/2014	05/12/2019
DOL	DOL	****1364	LEAD CONSTRUCTION SERVICES INC		3 ALAN B SHEPARD PLACE YONKERS NY 10705	03/19/2015	03/19/2020
DOL	DOL	****4388	LEN.J CONSTRUCTION LLC		PO BOX 10007 ALBANY NY 12201	08/14/2017	08/14/2022
DOL	DOL	****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	06/24/2016	01/30/2022

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DOL	DOL	****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	06/24/2016	01/30/2022
DOL	DOL	****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL	****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL	****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL	****4388	LEN.J CONSTRUCTION, LLC		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	AG		LEONID FRIDMAN		APT 5 200 BRIGHTON, 15TH STBROOKLYN NY 11235	01/23/2014	01/23/2019
DOL	DOL		LEROY NELSON JR		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL		LEROY NELSON JR		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL		LEROY NELSON JR		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL		LEROY NELSON JR		PO BOX 10007 ALBANY NY 12201	09/19/2017	09/19/2022
DOL	DOL		LEROY NELSON JR		PO BOX 10007 ALBANY NY 12201	08/14/2017	08/14/2022
DOL	DOL		LINDSEY R CRILL		143 FILLMORE AVENUE BUFFALO NY 14210	01/08/2015	01/08/2020
DOL	DOL	****8453	LINPHILL ELECTRICAL CONTRACTORS INC		523 SOUTH 10TH AVENUE MOUNT VERNON NY 10553	01/07/2011	04/15/2018
DOL	DOL		LINVAL BROWN		523 SOUTH 10TH AVENUE MOUNT VERNON NY 10553	01/07/2011	04/15/2018
DOL	AG		LUIS MARTINEZ	LALO DRYWALL	211 MAIN ST. NEW PALTZ NY 12561	05/20/2016	05/20/2021
DOL	NYC	****2850	M A 2 FLAGS CONTRACTING CORP		25-18 100TH STREET EAST ELMHURST NY 11369	08/21/2013	08/21/2018
DOL	DOL		M ANVER BEIG		142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022
DOL	AG	****6957	M B DIN CONSTRUCTION INC		8831 20TH AVENUE/SUITE 6E BROOKLYN NY 11214	11/17/2015	11/17/2020
DOL	NYC	****6317	M S QUALITY CONSTRUCTION LLC		27 MAPLEWOOD AVENUE COLONIA NJ 07067	02/04/2015	02/04/2020
DOL	DOL		M. ANVER BEIG		142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022
DOL	NYC		MACIEJ SONTOWSKI		27 MAPLEWOOD AVENUE COLONIA NJ 07067	02/04/2015	02/04/2020
DOL	NYC	****9590	MACK GLASSNAUTH IRON WORKS INC		137 LIBERTY AVENUE BROOKLYN NY 11212	12/21/2015	12/21/2020
DOL	NYC	****3141	MACKKEY REED ELECTRIC INC		1ST FLOOR STORE FRONT 88-10 LITTLE NECK PARKWAYFLORAL PARK NY 11001	06/24/2014	06/24/2019
DOL	DOL	****1784	MADISON AVE CONSTRUCTION CORP		39 PENNY STREET WEST ISLIP NY 11795	11/02/2016	11/02/2021
DOL	DOL		MALARKEY'S BAR & GRILL LLC		64 VICTORIA DRIVE BINGHAMTON NY 13904	02/04/2016	02/04/2021
DOL	DOL	****0705	MALARKEY'S PUB & GRUB LLC		64 VICTORIA DRIVE BINGHAMTON NY 13904	02/04/2016	02/04/2021
DOL	DA		MANUEL P TOBIO		150 KINGS STREET BROOKLYN NY 14444	08/19/1998	08/19/2998
DOL	DA		MANUEL TOBIO		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL		MARIA ESTEVES AKA MARIA MARTINS		C/O THREE FRIENDS CONSTR 986 MADISON AVENUEPATERSON NJ 07501	01/03/2013	01/03/2018
DOL	DOL		MARIA MARTINS AKA MARIA ESTEVES		C/O THREE FRIENDS CONSTR 986 MADISON AVENUEPATERSON NJ 07501	01/03/2013	01/03/2018
DOL	DOL		MARIACHI'S PIZZERIA		C/O DOUGLAS L MALARKEY 64 VICTORIA DRIVEBINGHAMTON NY 13904	02/04/2016	02/04/2021
DOL	DOL		MARK MIONIS		6409 LAND O LAKES BLVD LAND O LAKES FL 34638	11/10/2015	11/10/2020
DOL	DOL	****5533	MARQUISE CONSTRUCTION & DEVELOPMENT CORP		10 ST CHARLES STREET THORNWOOD NY 10594	09/03/2013	09/03/2018
DOL	DOL	****8810	MARQUISE CONSTRUCTION ASSOCIATES INC		20 BOSWELL ROAD PUTNAM VALLEY NY 10579	09/03/2013	09/03/2018
DOL	DOL	****1134	MARQUISE CONSTRUCTION CORP		10 ST CHARLES STREET THORNWOOD NY 10594	09/03/2013	09/03/2018

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DOL	DOL		MARVIN A STURDEVANT		29 MAPLEWOOD DRIVE BINGHAMTON NY 13901	02/21/2017	02/21/2022
DOL	DOL		MATTHEW IDEMA GENERAL CONTRACTORS INC		91 COLLEGE AVENUE POUGHKEEPSIE NY 12603	12/04/2015	12/04/2020
DOL	DOL	****6416	MCCALL MASONRY		P O BOX 304 SAYRE PA 18840	08/09/2016	08/09/2021
DOL	DOL	****9028	MCINTOSH INTERIORS LLC		8531 AVENUE B BROOKLYN NY 11236	02/05/2013	02/05/2018
DOL	DOL	****4259	MERCANDO CONTRACTING CO INC		134 MURRAY AVENUE YONKERS NY 10704	12/11/2009	02/03/2019
DOL	DOL	****0327	MERCANDO INDUSTRIES LLC		134 MURRAY AVENUE YONKERS NY 10704	12/11/2009	02/03/2019
DOL	NYC	****5330	METRO DUCT SYSTEMS INC		1219 ASTORIA BOULEVARD LONG ISLAND CITY NY 11102	04/16/2014	11/19/2020
DOL	DOL	****3368	MICEK CONSTRUCTION CO INC		20 CROSS STREET FALCONER NY 14733	12/02/2014	12/02/2019
DOL	DOL		MICHAEL A PASCARELLA		SUITE 100 2105 WEST GENESEE STREET SYRACUSE NY 13219	01/06/2016	01/06/2021
DOL	DOL	****9198	MICHAEL CZECHOWICZ	OCTAGON CO	37-11 35TH AVENUE-2ND FL LONG ISLAND CITY NY 11101	01/08/2013	01/08/2018
DOL	DOL		MICHAEL F LEARY JR		3813 SNOWDEN HILL ROADNEW HARTFORD NY 13413	06/19/2013	06/19/2018
DOL	DOL		MICHAEL F LEARY JR METAL STUD & DRYWALL		3813 SNOWDEN HILL ROAD NEW HARTFORD NY 13413	06/19/2013	06/19/2018
DOL	NYC		MICHAEL HIRSCH		C/O MZM CORP 163 S MAIN STREETNEW CITY NY 10956	01/28/2016	01/28/2021
DOL	DOL		MICHAEL KTISTAKIS		363 88TH STREET BROOKLYN NY 11209	11/18/2013	11/18/2018
DOL	DOL		MICHAEL MARGOLIN		4 LEGHORN COURT NEW YORK NY 11746	11/28/2012	11/28/2017
DOL	DOL		MICHAEL WILSON	WILSON BROTHER DRYWALL CONTRACTOR S	36 ABERSOLD STREET ROCHESTER NY 14621	08/31/2015	08/31/2020
DOL	DOL		MICHELLE L BARBER		635 LUZERNE ROAD QUEENSBURY NY 12804	09/16/2013	09/16/2018
DOL	NYC		MIGUEL ACOSTA		25-18 100TH STREET EAST ELMHURST NY 11369	08/21/2013	08/21/2018
DOL	NYC		MILANCE HADZIC		22 CALIFORNIA AVE - STE 1 PATERSON NJ 07503	03/11/2015	03/11/2020
DOL	AG		MOHAMMAD RIAZ		46 RUGBY ROAD WESTBURY NY 11590	11/20/2013	11/20/2018
DOL	AG		MOHAMMED N CHATHA		8831 20TH AVENUE/SUITE 6E BROOKLYN NY 11214	11/17/2015	11/17/2020
DOL	DOL	****2737	MOUNTAIN'S AIR INC		2471 OCEAN AVENUE- STE 7A BROOKLYN NY 11229	09/24/2012	09/18/2020
DOL	DOL		MUHAMMAD BEIG		142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022
DOL	DOL		MUHAMMAD BEIG		142 EAST MARKET STREET LONG BEACH NY 11561	03/07/2017	03/07/2022
DOL	DOL		MUHAMMAD PERVAIZ		C/O CHAMPION CONSTRUCTION 2131 SCHENECTADY AVENUEBROOKLYN NY 11234	11/18/2015	11/18/2020
DOL	DOL		MUZAFFAR HUSSAIN		C/O ABSOLUTE GENERAL CONT 1129 AVENUE UBROOKLYN NY 11229	01/28/2013	01/28/2018
DOL	NYC	****3613	MZM CORP		163 S MAIN STREET NEW CITY NY 10956	01/28/2016	01/28/2021
DOL	NYC	****1284	NEW AMERICAN RESTORATION INC		22 CALIFORNIA AVE - STE 1 PATERSON NJ 07503	03/11/2015	03/11/2020
DOL	DA	****6988	NEW YORK INSULATION INC		58-48 59TH STREET MASPETH NY 11378	05/16/2012	05/08/2020
DOL	NYC	****4839	NEW YORK RIGGING CORP		58-83 54TH STREET MASPETH NY 11378	02/26/2016	02/26/2021
DOL	DOL		NICHOLAS DEGREGORY JR	NJ DEGREGORY & COMPANY	1698 ROUTE 9 GLENS FALLS NY 12801	05/23/2013	05/23/2018
DOL	NYC		NICHOLAS PROVENZANO		147 BROOME AVENUE ATLANTIC BEACH NY 11509	03/03/2014	03/03/2019
DOL	NYC		NICHOLAS PROVENZANO		147 BROOME AVENUE ATLANTIC BEACH NY 11509	03/03/2014	03/03/2019

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DOL	DOL	*****5279	NJ DEGREGORY & COMPANY		1698 ROUTE 9 GLENS FALLS NY 12801	05/23/2013	05/23/2018
DOL	DOL		NJ DEGREGORY & SONS CONSTRUCTION		1698 ROUTE 9 GLENS FALLS NY 12801	05/23/2013	05/23/2018
DOL	NYC	*****1968	NORTH AMERICAN IRON WORKS INC		1560 DECATUR STREET RIDGWOOD NY 11385	05/15/2015	05/15/2020
DOL	DOL	*****6966	NORTH COUNTRY DRYWALL AND PAINT		23167 COUNTY ROUTE 59 DEXTER NY 13634	10/24/2016	10/24/2021
DOL	DOL	*****0065	NORTHEAST LANDSCAPE AND MASONRY ASSOC		3 WEST MAIN ST/SUITE 208 ELMSFORD NY 10523	01/23/2017	01/23/2022
DOL	DOL	*****9198	OCTAGON CO		37-11 35TH AVENUE-2ND FL LONG ISLAND CITY NY 11101	01/08/2013	01/08/2018
DOL	NYC	*****8337	OPTIMUM CONSTRUCTION INC		23-73 48TH STREET LONG ISLAND CITY NY 11103	04/24/2014	04/24/2019
DOL	NYC		ORSON ARROYO		C/O METRO DUCT SYSTEMS 12-19 ASTORIA BOULEVARDLONG ISLAND CITY NY 11102	04/16/2014	11/19/2020
DOL	DOL	*****4546	PAF PAINTING CORP		161 TIBBETTS ROAD YONKERS NY 10705	03/12/2014	03/12/2019
DOL	DOL	*****5242	PAF PAINTING SERVICES INC	GARDEN STATE PAINTING	157 TIBBETTS ROAD YONKERS NY 10103	03/12/2014	03/12/2019
DOL	DOL		PAF PAINTING SERVICES OF WESTCHESTER INC		C/O SPIEGEL & UTRERA 1 MAIDEN LANE - 5TH FLNEW YORK NY 10038	03/12/2014	03/12/2019
DOL	DOL	*****8802	PAT'S HEATING AND AIR CONDITIONING LTD		P O BOX 371 ROUND LAKE NY 12151	05/12/2014	05/12/2019
DOL	DOL		PATRICIA M RUGGLES		P O BOX 371 ROUND LAKE NY 12151	05/12/2014	05/12/2019
DOL	DOL		PAUL VERNA		C/O AMERICAN STEEL MECHA 693 PAINTER STREETMEDIA PA 19063	02/20/2013	02/20/2018
DOL	DOL		PETER M PERGOLA		3 WEST MAIN ST/SUITE 208 ELMSFORD NY 10523	01/23/2017	01/23/2022
DOL	NYC		PETER TRITARIS		5990 58TH AVENUE MASPETH NY 11378	11/18/2013	11/18/2018
DOL	DOL		PIERRE LAPORT		224 COUNTY HIGHWAY 138 BROADALBIN NY 12025	03/07/2017	03/07/2022
DOL	DOL	*****1543	PJ LAPORT FLOORING INC		224 COUNTY HIGHWAY 138 BROADALBIN NY 12025	03/07/2017	03/07/2022
DOL	DOL	*****2989	PROFESSIONAL ESTIMATING & BUSINESS CORP		157 TIBBETTS ROAD YONKERS NY 10705	03/12/2014	03/12/2019
DOL	DOL	*****6895	PROLINE CONCRETE OF WNY INC		3090 SHIRLEY ROAD NORTH COLLINS NY 14111	04/19/2011	07/08/2020
DOL	DA	*****6817	QUADRANT METAL BUILDINGS LLC		2740 SW MARTIN DOWNS BLVD PALM CITY FL 34990	08/25/2016	08/25/2021
DOL	DOL	*****0015	RAMADA CONSTRUCTION CORP		80 SAVO LOOP STATEN ISLAND NY 10309	01/07/2014	01/07/2019
DOL	NYC		RAMESHWAR ASU		137 LIBERTY AVENUE BROOKLYN NY 11212	12/21/2015	12/21/2020
DOL	DOL		RANA A KAHN		1973 81ST ST - SUITE A-5 BROOKLYN NY 11214	01/08/2015	01/08/2020
DOL	NYC		RANTIK PARIKH		13 LORIANN ROAD WARREN NJ 07059	07/15/2015	07/15/2020
DOL	DOL	*****2633	RAW POWER ELECTRIC CORP		3 PARK PLACE MIDDLETOWN NY 10940	09/16/2013	09/15/2019
DOL	NYC		RAYMOND PEARSON		P O BOX 957 PORT JEFFERSON STA NY 11776	03/12/2014	03/12/2019
DOL	DOL		REBECCA THORNE		113 N MAPLE AVENUE GREENSBURG PA 15601	02/21/2013	02/21/2018
DOL	DOL		REGINALD WARREN		C/O RAW POWER ELECTRIC 3 PARK CIRCLEMIDDLETOWN NY 10940	09/15/2014	09/15/2019
DOL	NYC	*****3461	RELIANCE GENERAL CONSTRUCTION INC		644 OCEAN PARKWAY BROOKLYN NY 11230	09/02/2015	09/02/2020
DOL	DOL		REVOLUTIONARY FLOORS LLC		P O BOX 268 STILLWATER NY 12170	09/16/2013	03/21/2019
DOL	DOL		RHINO CONCRETE LLC		101 SULLYS TRAIL/SUITE 20 PITTSFORD NY 14534	11/18/2013	01/07/2019
DOL	DA		RIANN MULLER		2740 SW MARTIN DOWNS BLVD PALM CITY FL 34990	08/25/2016	08/25/2021

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DOL	DOL		RICHARD WILSON		C/O DUFOUR GROUP INC 353 WEST 56TH STREET #7MNEW YORK NY 10019	06/10/2014	06/10/2019
DOL	DOL	****8618	RIEKS CONTRACTING LLC		4804 GAHWILER ROAD AUBURN NY 13021	05/01/2015	05/01/2020
DOL	DOL		ROBBYE BISSEAR		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	01/11/2003	01/11/3003
DOL	DOL	****1855	ROBERT D BISHOP JR	ROBERT D BISHOP JR	P O BOX 112 MORRISONVILLE NY 12962	07/15/2014	07/15/2019
DOL	DOL		ROBERT D BISHOP JR		P O BOX 112 MORRISONVILLE NY 12962	07/15/2014	07/15/2019
DOL	NYC		ROBERT GUIDO		3256 BRUNER AVENUE BRONX NY 10469	07/29/2014	07/29/2019
DOL	DOL		ROBERT L EVANS		128A NORTH STAMFORD ROAD STAMFORD CT 06903	05/23/2013	05/23/2018
DOL	DOL		ROBERT TORDELLA		125 CHAUTAUQUA AVENUE LAKEWOOD NY 14750	06/24/2015	06/24/2020
DOL	DOL	****3859	ROCHESTER ACOUSTICAL CORP		P O BOX 799 HILTON NY 14468	02/19/2016	02/19/2021
DOL	NYC		RODNEY SCOTT		201 HEMPSTEAD AVENUE WEST HEMPSTEAD NY 11552	10/30/2015	10/30/2020
DOL	DOL		ROMEO WARREN		C/O RAW POWER ELECTR CORP 3 PARK PLACEMIDDLETOWN NY 10940	09/16/2013	09/15/2019
DOL	DOL		ROSS J MUSCOLINO		10 ST CHARLES STREET THORNWOOD NY 10594	09/03/2013	09/03/2018
DOL	DOL		RYAN ALBIE		21 S HOWELLS POINT ROAD BELLPORT NY 11713	02/21/2017	02/21/2022
DOL	DOL	****3347	RYAN ALBIE CONTRACTING INC		21 S HOWELLS POINT ROAD BELLPORT NY 11713	02/21/2017	02/21/2022
DOL	DOL		S & S ELECTRIC		235 BROADWAY SCHENECTADY NY 12306	06/19/2013	06/19/2018
DOL	NYC		SABIR MUHAMMED		SUITE B-8 782 PELHAM PARKWAY SOUTHBRONX NY 10462	04/21/2016	04/21/2021
DOL	NYC		SAEED HASAN		4558 BROADWAY #6 NEW YORK NY 10040	08/04/2014	08/04/2019
DOL	DOL	****4923	SCHENLEY CONSTRUCTION INC		731 WARWICK TURNPIKE HEWITT NJ 07421	06/25/2012	12/11/2017
DOL	NYC	****2117	SCOTT ELECTRICAL LLC		201 HEMPSTEAD AVENUE WEST HEMPSTEAD NY 11552	10/30/2015	10/30/2020
DOL	DOL		SCOTT LEONARD	GLOBAL TANK CONSTRUCTI ON LLC	P O BOX 1238 SALINA OK 74365	11/28/2012	11/28/2017
DOL	DOL	****9751	SCW CONSTRUCTION		544 OLD ROUTE 23 ACRE NY 12405	02/14/2017	02/14/2022
DOL	DOL		SEAKCO CONSTRUCTION COMPANY LLC		128A NORTH STAMFORD ROAD STAMFORD CT 06903	05/23/2013	05/23/2018
DOL	DOL	****9030	SEAKCO NEW YORK LLC	SEAKCO CONSTRUCTI ON COMPANY	128A NORTH STAMFORD ROAD STAMFORD CT 06903	05/23/2013	05/23/2018
DOL	DOL		SEAN BURBAGE	C/O SEAN BURBAGE CORP	445 ROOSA GAP ROAD BLOOMINGBURG NY 12721	04/14/2014	04/14/2019
DOL	DOL	****6586	SEAN BURBAGE CORP		445 ROOSA GAP ROAD BLOOMINGBURG NY 12721	04/14/2014	04/14/2019
DOL	AG		SERGIO RAYMUNDO		109 DUBOIS RD. NEW PALTZ NY 12561	05/20/2016	05/20/2021
DOL	DOL	****6904	SIGNING STAR LIMITED LIABILITY COMPANY		5 HANSEN PLACE WAYNE NJ 07470	09/18/2013	09/18/2018
DOL	DOL	****4025	SOLUTION MATTERS INC		198 NORWOOD ROAD PORT JEFFERSON NY 11776	11/19/2015	11/19/2020
DOL	NYC	****4934	SPHINX CONTRACTING CORP		240 HOME STREET TEANECK NJ 07666	08/04/2014	08/04/2019
DOL	DOL		SPORTSCRAFTERS INC		113 N MAPLE AVENUE GREENSBURG PA 15601	02/21/2013	02/21/2018
DOL	DOL	****3496	STAR INTERNATIONAL INC		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	08/11/2003	08/11/3003
DOL	DOL		STEPHEN BIANCHI		462 LAKEVIEW AVENUE VALHALLA NY 10595	12/16/2013	12/16/2018
DOL	DOL	****9751	STEPHEN C WAGAR		544 OLD ROUTE 23 ACRE NY 12405	02/14/2017	02/14/2022
DOL	DOL		STEPHEON SHELDON	FANTASTIC PAINTING	493 LANSING ROAD FULTONVILLE NY 12072	11/18/2013	11/18/2018

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DOL	DOL		STEVEN P SUCATO		15-68 208TH STREET BAYSIDE NY 11360	06/23/2016	06/23/2021
DOL	DOL		STEVEN SAGGESE		3005 WYNSUM AVENUE MERRICK NY 11566	08/18/2014	08/18/2019
DOL	DOL		STEVEN TESTA		50 SALEM STREET - BLDG B LYNNFIELD MA 01940	01/23/2017	01/23/2022
DOL	DOL		STUART CHAITIN		634 ROUTE 303 BLAUVET NY 10913	07/26/2012	11/19/2018
DOL	NYC	****9432	SUBLINK LTD		346 THIRD AVENUE PELHAM NY 10803	11/19/2015	11/19/2020
DOL	DOL	****3210	SUPER SWEEP	FMS	4 LEGHORN COURT NEW YORK NY 11746	11/28/2012	11/28/2017
DOL	DOL		SUZANNE G GOLD	C/O GOLDS FLOORING INSTALLATION S INC	25 HAMILTON ROAD MONTICELLO NY 12701	10/16/2013	10/16/2018
DOL	DOL	****7441	T & T CONCRETE INC		2560 HAMBURG TURNPIKE P O BOX 367LACKAWANNA NY 14218	07/08/2015	07/08/2020
DOL	DOL	****9676	T D CONTRACTORS CORP	T D CONTRACTOR S INC	113 N MAPLE AVENUE GREENSBURG PA 15601	02/21/2013	02/21/2018
DOL	DOL		T D CONTRACTORS INC		113 N MAPLE AVENUE GREENSBURG PA 15601	02/21/2013	02/21/2018
DOL	DOL	****7417	TADCO CONSTRUCTION		101-61 99TH STREET OZONE PARK NY 11416	02/15/2017	02/15/2022
DOL	DOL		TADCO CONSTRUCTION		101-61 99TH STREET OZONE PARK NY 11416	02/15/2017	02/15/2022
DOL	DOL	****7417	TADCO CONSTRUCTION CORP		101-61 99TH STREET OZONE PARK NY 11416	02/15/2017	02/15/2022
DOL	DOL		TAMMY LACITIGNOLA		C/O CATSKILL FENCE INSTAL 5445 ROUTE 32CATSKILL NY 12414	08/22/2014	08/22/2019
DOL	DOL	****9852	TAP STEEL INC		ROUTE 26 3101 P O BOX 457CONSTABLEVILLE NY 13325	01/28/2016	01/28/2021
DOL	DOL		TECH-MECHANICAL FAB DC INC		5 PARKER AVENUE POUGHKEEPSIE NY 12601	03/25/2014	03/25/2019
DOL	DOL	****5570	TESTA CORP		50 SALEM STREET - BLDG B LYNNFIELD MA 01940	01/23/2017	01/23/2022
DOL	DOL	****0887	THE BRINSON PAINTING CORPORATION		72 TAUNTON PLACE BUFFALO NY 14216	04/14/2015	04/14/2020
DOL	DOL	****8174	THE DALRYMPLE CORPORATION		UNIT 278 541 10TH STREET NWTALANTA GA 30318	12/01/2015	12/01/2020
DOL	DOL	****8174	THE DALRYMPLE GROUP LLC		289 JONESBORO RD/ STE 216 MCDONOUGH GA 30253	12/01/2015	12/01/2020
DOL	DOL		THE THORNE GROUP INC		113 N MAPLE AVENUE GREENSBURG PA 15601	02/21/2013	02/21/2018
DOL	DOL	****2070	THE UNIVERSAL GROUP OF NEW YORK INC		212 OXFORD WAY SCHENECTADY NY 12309	12/11/2012	09/16/2018
DOL	DOL	****9243	THE WELCOME MAT PROPERTY MANAGEMENT LLC		P O BOX 268 STILLWATER NY 12170	09/16/2013	03/21/2019
DOL	DOL		THOMAS DESANTIS	DESANTIS ENTERPRISES	161 OSWEGO RIVER ROAD PHOENIX NY 13135	09/24/2013	11/18/2018
DOL	NYC		THOMAS SCARINCI		130-43 92ND AVENUE RICHMOND HILLS NY 11418	11/27/2013	11/27/2018
DOL	DOL	****2734	THREE FRIENDS CONSTRUCTION CORP		986 MADISON AVENUE PATERSON NJ 07501	01/03/2013	01/03/2018
DOL	NYC	****6253	THUNDER BROTHERS CORP		24 CONGRESS LANE SOUTH RIVER NJ 08882	05/01/2013	05/01/2018
DOL	DOL		TIMOTHY A PALUCK		C/O TAP STEEL INC RTE 26 3101/ P O BOX 457CONSTABLEVILLE NY 13325	01/28/2016	01/28/2021
DOL	DOL		TIMOTHY F BARBER		635 LUZERNE ROAD QUEENSBURY NY 12804	09/16/2013	09/16/2018
DOL	NYC	****1523	TM MECHANICAL CORP		130-43 92ND AVENUE RICHMOND HILLS NY 11418	11/27/2013	11/27/2018
DOL	DOL	****0600	TOMSON ALLOYS RECYCLING INC		143 FILLMORE AVENUE BUFFALO NY 14210	01/08/2015	01/08/2020
DOL	DOL	****3453	TORCHIA'S HOME IMPROVEMENT		10153 ROBERTS RD SAUQUOIT NY 13456	08/09/2016	08/09/2021
DOL	DOL	****6914	TRI-COUNTY RESTORATIONS & CONSTRUCTION INC		13 SUMMERSET DRIVE WALKKILL NY 12589	08/22/2014	08/22/2019
DOL	DOL		TRI-COUNTY RESTORATIONS INC		392 ROCK CUT ROAD WALDEN NY 12586	08/22/2014	08/22/2019

NYS DOL Bureau of Public Work Debarment List 11/17/2017

Article 8

DOL	DOL	****8311	TRIPLE B FABRICATING, INC.		61 WILLETT ST. PASSAIC NJ 07503	10/26/2016	10/26/2021
DOL	DOL	****9407	TURBO GROUP INC		15-68 208TH STREET BAYSIDE NY 11360	06/23/2016	06/23/2021
DOL	AG	****6490	UNIVERSAL STEEL FABRICATORS INC		90 JUNIUS STREET BROOKLYN NY 11212	01/23/2014	01/23/2019
DOL	NYC	****7174	V&R CONTRACTING		P O BOX 957 PORT JEFFERSON STA NY 11776	03/12/2014	03/12/2019
DOL	NYC		VALERIE VISCONTI		346 THIRD AVENUE PELHAM NY 10803	11/19/2015	11/19/2020
DOL	NYC		VEAP SELA	C/O COLONIAL ROOFING COMPANY INC	247 48TH STREET BROOKLYN NY 11220	02/05/2014	02/05/2019
DOL	NYC		VICK CONSTRUCTION		21 DAREWOOD LANE VALLEY STREAM NY 11581	12/31/2013	12/31/2018
DOL	NYC		VICKRAM MANGRU	VICK CONSTRUCTI ON	21 DAREWOOD LANE VALLEY STREAM NY 11581	12/31/2013	12/31/2018
DOL	DOL		VICTOR ROTENBERG		C/O GMDV TRANS INC 67048 182ND STREETFRESH MEADOWS NY 11365	06/24/2016	06/24/2021
DOL	NYC		VINCENT PIZZITOLA		P O BOX 957 PORT JEFFERSON STA NY 11776	03/12/2014	03/12/2019
DOL	DOL		WAYNE LIVINGSTON JR	NORTH COUNTRY DRYWALL AND PAINT	23167 COUNTY ROUTE 59 DEXTER NY 13634	10/24/2016	10/24/2021
DOL	DOL		WESLEY J STAROBA		206 TALLY HO COURT SCHENECTADY NY 12303	06/19/2013	06/19/2018
DOL	DOL	****0078	WESLEY J STAROBA INC	S & S ELECTRIC	235 BROADWAY SCHENECTADY NY 12306	06/19/2013	06/19/2018
DOL	DOL		WILLIAM CONKLIN		5 PARKER AVENUE POUGHKEEPSIE NY 12601	03/25/2014	03/25/2019
DOL	DOL		WILLIAM DEAK		C/O MADISON AVE CONSTR CO 39 PENNY STREETWEST ISLIP NY 11795	11/02/2016	11/02/2021
DOL	DOL		WILLIAM MAZZELLA		134 MURRAY AVENUE YONKERS NY 10704	02/03/2014	02/03/2019
DOL	DOL		WILLIAM THORNE		113 N MAPLE AVENUE GREENSBURG PA 15601	02/21/2013	02/21/2018
DOL	DOL		WILLIE BRINSON		72 TAUNTON PLACE BUFFALO NY 14216	04/14/2015	04/14/2020
DOL	DOL	****6195	WILSON BROTHER DRYWALL CONTRACTORS		36 ABERSOLD STREET ROCHESTER NY 14621	08/31/2015	08/31/2020
DOL	DOL	****7345	YES SERVICE AND REPAIRS CORPORATION		145 LODGE AVE HUNTINGTON STATION NY 11476	08/09/2016	08/09/2021
DOL	DOL		YURIY IVANIN		C/O MOUNTAIN'S AIR INC 2471 OCEAN AVENUE-STE 7ABROOKLYN NY 11229	09/24/2012	09/18/2020