



**BOARD OF COUNTY COMMISSIONERS  
WARREN COUNTY, OHIO**

*406 Justice Drive, Lebanon, Ohio 45036*

*www.co.warren.oh.us*

*commissioners@co.warren.oh.us*

*Telephone (513) 695-1250*

*Facsimile (513) 695-2054*

**TOM GROSSMANN  
SHANNON JONES  
DAVID G. YOUNG**

22-0746

May 24, 2022

**ENTER INTO CONTRACT WITH LARRY SMITH, INC. FOR THE COLUMBIA ROAD  
WATER MAIN IMPROVEMENTS – PHASE 2 PROJECT**

WHEREAS, pursuant to Resolution #22-0655 dated May 10, 2022, this Board approved a Notice of Intent to Award Bid for the Columbia Road Water Main Improvements – Phase 2 Project to Larry Smith, Inc., for a total bid price of \$745,045.00; and

WHEREAS, all documentation, including performance bonds, insurance certificates, etc., has been submitted by the contractor; and

NOW THEREFORE BE IT RESOLVED, to enter into contract with Larry Smith, Inc., 5737 Dry Fork Road, Cleves, Ohio 45002, for a total contract price of \$745,045.00; as attached hereto and made a part hereof.

Mrs. Jones moved for adoption of the foregoing resolution being seconded by Mr. Young. Upon call of the roll, the following vote resulted:

Mr. Grossmann – yea

Mr. Young – yea

Mrs. Jones – yea

Resolution adopted this 24<sup>th</sup> day of May 2022.

**BOARD OF COUNTY COMMISSIONERS**

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Tina Osborne, Clerk

KP/

cc: c/a— Larry Smith, Inc.  
Water/Sewer (file)  
OMB Bid file



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Telephone (513) 695-1250

Facsimile (513) 695-2054

**TOM GROSSMANN**  
**SHANNON JONES**  
**DAVID G. YOUNG**

22-0655

May 10, 2022

APPROVE NOTICE OF INTENT TO AWARD BID TO LARRY SMITH, INC. FOR THE COLUMBIA ROAD WATER MAIN IMPROVEMENTS – PHASE 2 PROJECT

WHEREAS, bids were closed at 11:00 a.m., on April 28, 2022, and the bids received were opened and read aloud for Columbia Road Water Main Improvements – Phase 2 Project, and the results are on file in the Commissioners' Office; and

WHEREAS, upon review of such bids by Chris Wojnicz, Deputy Sanitary Engineer, Larry Smith, Inc. has been determined to be the lowest and best bidder; and

NOW THEREFORE BE IT RESOLVED, upon recommendation of the Warren County Water and Sewer Department, that it is the intent of this Board to award the contract to Larry Smith, Inc., 5737 Dry Fork Road, Cleves, Ohio 45002, for a total bid price of \$745,045.00; and

BE IT FURTHER RESOLVED, that the Vice President of the Board is hereby authorized to execute a "Notice of Intent to Award."

Mr. Young moved for adoption of the foregoing resolution being seconded by Mrs. Jones. Upon call of the roll, the following vote resulted:

Mr. Grossmann – absent

Mrs. Jones – yea

Mr. Young – yea

Resolution adopted this 10<sup>th</sup> day of May 2022.

BOARD OF COUNTY COMMISSIONERS

---

Tina Osborne, Clerk

cc: Water/Sewer (file)  
OMB Bid file



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**TOM GROSSMANN**  
**SHANNON JONES**  
**DAVID G. YOUNG**

**BID OPENING**

April 28, 2022

**BID OPENING –**

Bids were closed at 11:00 a.m. this 28<sup>th</sup> day of April and the following bids were received, opened, and read aloud for the Columbia Road Water Main Improvements – Phase 2 Project for the Warren County Water and Sewer Department.

C. G. Construction and Utilities Inc. Miamisburg, OH	\$747,900.00
Majors Enterprises Monroe, OH	\$873,469.37
Larry Smith Incorporated Cleves, OH	\$745,045.00
KT Supply LTD Lebanon, OH	\$1,190,022.00
Ford Development Corp. Cincinnati, OH	\$837,473.00

Chris Wojnicz, Deputy Sanitary Engineer, will review bids for a recommendation at a later date.

cc: Bid File

OMB

W/S (file)

April 25, 2022

**ADDENDUM #1**

**Columbia Road Watermain Improvements – Phase 2**

**1 Page TOTAL (Including this Sheet)**

This Addendum No. 1 is issued to make certain revisions, additions, and clarifications to the original Contract Documents and shall be incorporated into the original Specifications and Plans. This Addendum takes precedence over any and all information previously issued. No other revisions to the Specifications are to be inferred.

**CONSTRUCTION SCHEDULE:**

- 1) Substantial Completion: December 31, 2022
- 2) Final Completion and Contract Closeout: February 1, 2023

THIS ADDENDUM MUST BE SIGNED AND ATTACHED TO YOUR BID.

\_\_\_\_\_  
Acknowledged by

\_\_\_\_\_  
Date

## **PLAN HOLDERS LIST**

### **Columbia Road Water Main Improvements – Phase 2 Project**

**Individuals or companies can be added to the plan holders list by contacting Krystal Powell at [krystal.powell@co.warren.oh.us](mailto:krystal.powell@co.warren.oh.us)**

<b>Name</b>	<b>Company</b>	<b>Phone Number</b>	<b>E-mail Address</b>
Scott Pearson	C.G. Construction and Utilities Inc.	937-866-7166	<a href="mailto:scottcgconstruction@swohio.twcbc.com">scottcgconstruction@swohio.twcbc.com</a>
Michael Majors	Majors Enterprises Inc.	513-464-6777	<a href="mailto:majorssupply@hotmail.com">majorssupply@hotmail.com</a>
Kelly Simpson	Larry Smith Incorporated	513-367-0218 ext. 121	<a href="mailto:kelly.simpson@larrysmithinc.com">kelly.simpson@larrysmithinc.com</a>
Tyler Holden	KT Supply Ltd.	513-200-3432	<a href="mailto:Holden.tyler@gmail.com">Holden.tyler@gmail.com</a>
Andrew Kloenne	Ford Development Corp.	513-572-1521	<a href="mailto:akloenne@forddevelopment.com">akloenne@forddevelopment.com</a>
Donnie Miley	Smith & Brown Contractors, Inc.	513-678-0370	<a href="mailto:dmiley@sbcon.net">dmiley@sbcon.net</a>
Bryan Gessner	SmithCorp Inc.	513-782-8882	<a href="mailto:Bryan.gessner@smithcorp.com">Bryan.gessner@smithcorp.com</a>

BID/CONTRACT DOCUMENTS

**COLUMBIA RD. WATER MAIN  
IMPROVEMENTS - PHASE 2**

WARREN COUNTY WATER & SEWER DEPARTMENT

WARREN COUNTY BOARD OF COMMISSIONERS  
406 JUSTICE DRIVE  
LEBANON, OHIO 45036  
(513) 695-1250

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**SECTION 00 10 10**  
**INVITATION TO BIDDERS**

Sealed bids will be received by the Clerk of the County Commissioners, Warren County, Ohio, 406 Justice Drive, Lebanon, Ohio 45036, until 11:00 a.m., April 28, 2022, and then at said time bids will be opened and read aloud for the Columbia Road Water Main Improvements – Phase 2 Project.

Bid documents and specifications are available online on the Warren County website at <http://www.co.warren.oh.us/commissioners/Bids/Default.aspx>. Questions regarding the technical specifications should be directed to Chris Wojnicz, Project Manager, at the Warren County Water and Sewer Department, at (513) 695-1646 or [christopher.wojnicz@co.warren.oh.us](mailto:christopher.wojnicz@co.warren.oh.us). Each bid shall contain the full name of each person or company submitting the bid and be accompanied by a bid bond for the full amount of the bid or a certified check in the amount equal to ten (10) percent of the bid.

The project generally consists of installation of approximately 1,150 feet of 24" ductile iron water main on Columbia Road. The estimated contract value is \$900,000.

Contact the Warren County Commissioner's Office at (513) 695-1250 should you need assistance in accessing the bidding information on the County's website. All contract addenda will be posted to the website prior to the bid opening. Bidders should check the website regularly to stay updated on any changes to the project.

**Please be aware that if you are downloading this document to bid this project, and in order to stay updated on any change, please email Krystal Powell in the Commissioners' Office at [krystal.powell@co.warren.oh.us](mailto:krystal.powell@co.warren.oh.us) with your contact information.**

A Bid guaranty, as required by Ohio Revised Code, Section 153.54, shall accompany each proposal submitted, as follows:

1. A Certified check, cashier's check, or letter of credit equal to ten (10) percent of the bid. A letter of credit may only be revocable by the Owner. Upon entering into a contract with the Owner, the contractor must file a performance bond for the amount of the contract, and the bid guaranty will then be returned to the successful and unsuccessful bidders upon contract execution.

**OR**

2. A form of bid guaranty bond (attached) for the full amount of the bid. Such bond is retained for the successful bidder but returned to unsuccessful bidders after the contract is executed.

Attention of bidders is called to all of the requirements contained in the bid packet. No bidder may withdraw his/her bid within sixty (60) days after the actual date of the opening thereof. All bids shall be properly signed by an authorized representative of the bidder.

All bids shall be sealed and plainly marked "**Bid Opening – Columbia Road Water Main Improvements – Phase 2 Project, April 28, 2022 @ 11:00 a.m.**"

Warren County reserves the right to reject any or all bids submitted, to waive any irregularities in bids, and enter into a contract with the Bidder who in Warren County's consideration offered the lowest and best bid.

By order of the Board of County Commissioner, County of Warren, State of Ohio.

\_\_\_\_\_  
Tina Osborne, Clerk

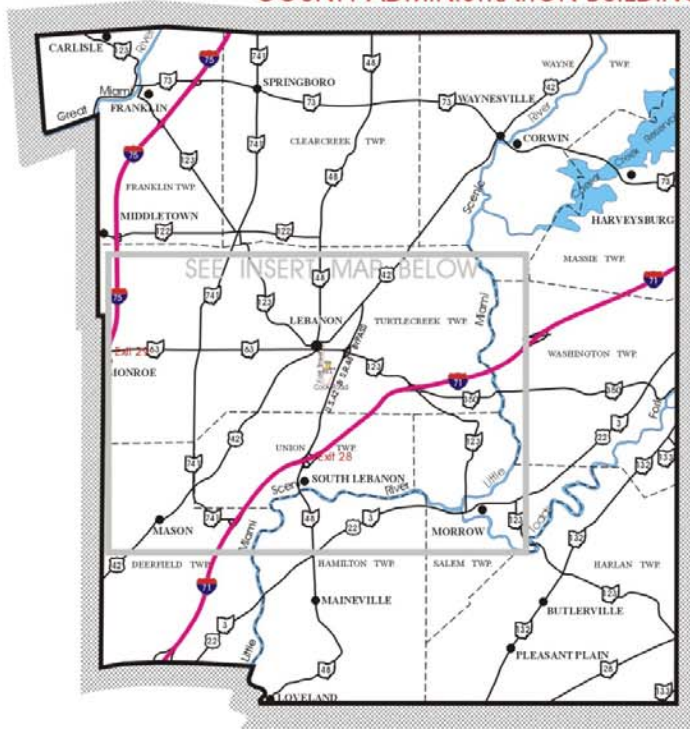




# DIRECTIONS FROM INTERSTATE HIGHWAYS 71 & 75 TO WARREN COUNTY, OHIO COUNTY ADMINISTRATION BUILDING



TRI-STATE REGION COUNTIES



- FROM INTERSTATE 75:**
- Take Monroe / Lebanon Exit 29,
  - Head East on S. R. 63 into Lebanon,
  - Turn right onto East Street,
  - Turn left onto Justice Drive,
  - Turn left into parking lot,
  - At first driveway on left.

- FROM INTERSTATE 71:**
- Take Lebanon / South Lebanon Exit 28,
  - Head North on U. S. 42 / S. R. 48 Bypass,
  - Turn left onto Cook Road at traffic light,
  - Turn at first right onto Justice Drive,
  - Turn right at first street on right,
  - Then left into parking lot at first left.

INSERT FROM ABOVE MAP



INSERT FROM MAP AT LEFT



Map Prepared By: Warren County Regional Planning Commission

**SECTION 00 10 20  
BID PROPOSAL**

The undersigned declares that the only persons or parties in this Bid are as stated; that the Bid is made without any collusion with other persons, firms, or corporations; that all the Contract Documents as prepared have been carefully examined; that the undersigned is fully informed in regard to all conditions pertaining to the Work and the place where it is to be done, and from them the undersigned makes this bid. The undersigned do hereby propose to furnish all labor, materials, tools, equipment, etc., necessary to complete the work in the City of Mason in Warren County, Ohio and that the bid includes all costs including, permit fees, taxes, insurance, overhead, and profit. All material and equipment must comply with the specifications and contract drawings that comprise the Contract Documents.

The premiums for all Bonds required shall be paid by the Contractor and shall be included in the Contract Price. The undersigned Bidder further agrees that the Bid Security accompanying this Bid shall become the property of the County if the Bidder fails to execute the Agreement.

If any addenda are published on Warren County's website at <https://www.co.warren.oh.us/Commissioners/Bids/Default.aspx>, pursuant to SECTION 00 20 00, Paragraph 7, the undersigned acknowledges receipt of the following Addenda:

No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_

No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_

No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_

Bids shall include all costs incurred for the Work including materials, equipment, supplies, labor, permit fees, taxes, insurance, miscellaneous costs, overhead, and profit. All Material must comply with the specifications shown on the contract drawings.

The written/typed Total Bid price is for the convenience of the Owner in comparing bids. Any discrepancy between the actual sum of the line item totals and the written/typed total bid price shall be resolved in favor of the actual sum of the correct individual line item.

The undersigned hereby certifies under the penalty of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person or entity. The bid proposals shall remain in full force and effect for sixty (60) days after the date of opening bids. The full name and address of all persons and parties interested in the foregoing bids as principals are as follows:

---

Individual, Partnership, or Corporation

---

Signature of Corporate Officer, President, or Owner

---

Date

Notice of acceptance should be mail or delivered to the following:

COMPANY NAME: \_\_\_\_\_

CHIEF EXECUTIVE OFFICER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

FAX NUMBER: \_\_\_\_\_

PROJECT CONTACT PERSON: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

E-MAIL ADDRESS: \_\_\_\_\_

FEDERAL ID #: \_\_\_\_\_

WEBSITE ADDRESS: \_\_\_\_\_

NOTE: The firm, corporate or individual name of the bidder must be signed in ink in the space provided for the signatures on the proposed blanks. In the case of a corporation, the title of the officer signing must be stated, and such officer must be thereunto duly authorized and the seal of said corporation duly affixed. In the case of a partnership, the signature of at least one of the partners must follow the firm name, using the term "member of the firm." In the case of an individual, use the terms "doing business as", or "sole owner."

**SECTION 00 10 30  
BID FORM**

NO.	Description	Units	Quantity	Unit Cost	Cost
1	Mobilization & Demobilization	LS	1		
2	Maintenance of Traffic	LS	1		
3	Construction Staking	LS	1		
4	Pavement Sawing & Removal	SY	396		
5	Subgrade Compaction	SY	511		
6	ODOT - 301 Concrete, 2 ~ 4" Lifts	SY	396		
7	ODOT - 448 Asphalt Concrete Surface Course, 1-1/2" Including Tack Coat	SY	1006		
8	Controlled Density Fill	SY	396		
9	Connect to Existing 24" WM, Including Couplings, Glands, and Gaskets	Ea.	1		
10	24" Horizontal Gate Valve, Including Valve Boxes and Stems	Ea.	3		
11	Remove Ex. Fire Hydrant	Ea.	2		
12	Furnish & Install Fire Hydrant Assembly & 6" Laterals Including Glands, Gaskets, Restraints, Gate Valve, Box and Lid	Ea.	2		
13	Furnish & Install 24" Polywrapped C151 Class 52 Ductile Iron Restrained Pipe, Including Fittings, Plugs, Restraints, Glands, Gaskets and Gravel	LF	654		
14	Furnish & Install 24" Polywrapped C151 Class 52 Ductile Iron Unrestrained Pipe, Including Fittings, Plugs, Restraints, Glands, Gaskets and Gravel	LF	496		
15	Furnish & Install 24" X 8" Cross & Sleeves	Ea.	1		
16	Topsoil Furnished & Placed	SY	116		
17	Site Restoration, Including Grading, Seeding, Mulching	SY	116		
<b>TOTAL BID PRICE</b>					

**TOTAL BID PRICE (In Words)**

**NOTE:**

- Quantities are based upon construction plans for Columbia Road Water Main Improvements Project Phase 2 and prepared by The Kleingers Group.

**SECTION 00 10 50  
EXCEPTION SHEET**

Exceptions: Exceptions to any bid specification must be clearly stated on this sheet. This sheet must be submitted with each bid. If there are no exceptions, please indicate “none” below.

1. \_\_\_\_\_  
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2. \_\_\_\_\_  
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6. \_\_\_\_\_  
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\_\_\_\_\_

**SECTION 00 20 00**  
**GENERAL INSTRUCTION TO BIDDERS**

1. **Receipt and Opening of Bids:** The Warren County Board of Commissioners (herein referred to as “Owner”), invites bids on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be received by the Owner at the Office of the Warren County Board of Commissioners until 11:00 AM, Thursday, April 28, 2022 and then at said office publicly opened and read aloud. The envelopes containing the bids must be sealed, addressed to Warren County Board of Commissioners at 406 Justice Drive, Lebanon, Ohio 45036, and shall be clearly marked as follows:

**Bid Opening**  
**COLUMBIA ROAD WATER MAIN IMPROVEMENTS – PHASE 2**  
**11:00 AM, Thursday April 28, 2022**

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within 60 days after the actual date of opening thereof.

2. **Description of Project:** The project generally consists of 1,150 feet of 24” ductile iron water main along Columbia Road in the City of Mason.

3. **Construction Cost:** The Engineer’s opinion of probable construction cost for the base bid work is \$900,000.

4. **Project Funding/Financing:** The project shall be financed to the Contractor only through the Owner’s reserved funds.

5. **Time of Completion and Liquidated Damages:** The Bidder hereby agrees that the Contract Time shall commence on the date stipulated in the Notice to Proceed which will be issued by the Owner within 14 days of contract execution and to complete the work in accordance with the terms as stated in the Contract, and in accordance with the following schedule milestones:

**Substantial Completion:** 120 Days from Notice to Proceed

**Final Completion:** 170 Days from Notice to Proceed

Any delays in substantial completion of the work that are within the control of the Contractor, their Subcontractor, or Supplier shall be subject to liquidated damages in the sum of \$200.00 for each consecutive calendar day that the project extends beyond the substantial completion deadline. See the General Conditions and Supplemental Conditions for the definition and requirements of substantial completion.

6. **Bid Documents:** Bid documents, including terms, general conditions, supplemental conditions, drawings, addenda, and other information are available online, free of charge, at the

Warren County's Website at <https://www.co.warren.oh.us/Commissioners/Bids/Default.aspx>. No planholder list will be maintained by the Owner. All Addenda will be posted on the website and shall not be mailed to bidders.

7. **Addenda and Interpretations:** No interpretations of the meaning of the plans, specifications, or other pre-bid documents will be made to any bidder orally. Every request for such interpretation must be in writing to Chris Wojnicz at [Christopher.Wojnicz@co.warren.oh.us](mailto:Christopher.Wojnicz@co.warren.oh.us). To be given consideration all questions must be received by 4:00 pm on Tuesday April 28, 2022. All such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be posted on the Warren County Commissioners' website <https://www.co.warren.oh.us/Commissioners/Bids/Default.aspx>, no later than five days prior to the date fixed for opening of bids. Failure of any bidder to monitor the website and download any such addendum or interpretations shall not relieve such bidder from any obligation under his/her bid as submitted. All addenda so issued shall become part of the contract documents. Bidders shall be responsible for checking the website prior to submitting their bid.

8. **Power of Attorney:** Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

9. **Required Forms:** Each bid must be submitted on the forms contained in the Contract Documents herein. All blank spaces for bid prices must be completed, in ink or typewritten, in both words and figures, and the foregoing certifications must be fully completed and executed when submitted. Each Bidder shall complete and submit the following forms with his/her bid:

Section 00 10 20	BID PROPOSAL
Section 00 10 30	EXCEPTION SHEET
Section 00 30 10	NONCOLLUSION AFFIDAVIT – FORM 1
Section 00 30 20	NONCOLLUSION AFFIDAVIT – FORM 2
Section 00 30 30	AFFIDAVIT OF NON-DELINQUENCY OF REAL AND/OR PERSONAL PROPERTY TAX
Section 00 30 40	FINDINGS FOR RECOVERY AFFIDAVIT
Section 00 30 50	EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS, BID CONDITIONS, NON-DISCRIMINATION, AND EQUAL EMPLOYMENT OPPORTUNITY AFFIDAVIT
Section 00 40 00	BONDING REQUIREMENTS
Section 00 40 10	BID GUARANTY AND CONTRACT BOND

10. **Modification or Withdraw of Bid:** Bids may be modified or withdrawn by any appropriate document duly executed (in the manner that a bid must be executed) and delivered to the place where bids are to be submitted at any time prior to the opening of bids.

After opening, a Bidder may withdraw their bid from consideration if the price bid was substantially lower than the other bids, provided the bid was submitted in good faith and the reason for the price being substantially lower was a clerical mistake as opposed to a judgment mistake and was actually due to an unintentional omission of a substantial quantity of work, labor or material made directly in the compilation of the bid. Request to withdraw such bid must be made in writing and filed with the Owner within two business days after the opening of bids and prior to the acceptance thereof.



11. **Method of Award:** The Owner may reject all bids or may award the contract on the base bid or on the base bid combined with additions or deductible alternates, to the lowest and best bidder, as produces a net amount which is within the available funds.

To determine lowest and best bidder, the price of the bid will be given equal weight against the totality of the following factors: 1.) the bidder's information provided in the Section 00 50 10 Experience Statement which shall be used to judge responsibility, experience, skill, financial standing, feedback from references or prior clients—which may include Owner; 2.) the Section 00 10 30 Exception Sheet; 3.) availability, proximity, and familiarity to job site.

If the total price received from the lowest and best bidder exceeds the amount of funds available to finance the contract, the Owner may:

- a. Reject all bids;
- b. Augment the funds available in the amount sufficient to enable award to the lowest and best bidder or bidders;
- c. Reduce the scope of the work by eliminated certain items of work to produce a total bid which is within the available funds;
- d. Reduce the scope of work by reducing the quantities of certain items of work to produce a total bid which is within the available funds;
- e. Reduce the scope of work by a combination of adjustments as outlined in “c” and “d” above to produce a total bid which is within available funds.
- f. The Owner may reject all bids or may award the contract on the base bid or on the base bid combined with additions or deductible alternative as produces a net amount which is within the available funds.
- g. The Owner may consider informal and may reject any bid not prepared and submitted in accordance with the provisions hereof. The Owner reserves the right to reject all bids, to waive any informalities or irregularities in the bids received, and to accept any bid which is deemed lowest and best.

12. **Qualification of Bidder:** The Owner any make such investigations as he/she deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated herein; conditional bids will not be accepted.

13. **No Damage for Delay:** No payment, compensation or adjustment of any kind shall be made to the contract price for damages incurred by the contractor because of hindrances or delays in the progress of the work from any cause that is not proximately caused by the Owner's action or failure to act. Whether such hindrances or delays are avoidable or unavoidable, the contractor agrees that he or she will make no claim for compensation, damages, or mitigation of liquidated damages for any such delays. Examples of delays include (but are in no manner limited to) obtaining all necessary permission from any government agency or any private party, any act or failure to act by any other contractor, subcontractor and/or supplier, all foreseen and unforeseen events and any conditions or acts of God. It is understood and agreed that the

contractor assumes all risks of delays in prosecuting or completing the work under the contract that are not proximately caused by the Owner's action or failure to act. The contractor will accept in full satisfaction for such delays, an extension of time, if any, agreed to by the Owner.

14. **Conditions of Work:** Each bidder must inform him/herself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his/her obligation to furnish all material and labor necessary to carry out the provisions of his/her contract. Insofar as possible the contractor, in carrying out the work, must employ such methods or means or will not cause any interruption of or interference with the work of any other contractor. No plea of ignorance of conditions that exist or that may hereafter exist, or of conditions or difficulties that may be encountered in the execution of the work as the result of failure to make such examination and investigation, will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill in every respect, all the requirements of the Contract, nor will the same be accepted as a basis for any claim whatsoever for extra compensation or for an extension of time.

15. **Obligation of Bidder:** Each bidder shall and is hereby directed to inspect the entire site of the proposed work and judge for him/herself as to all the circumstances affecting the cost and progress of the work and shall assume all patent and latent risks in connection therewith. At the time of the opening of bids each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect of his/her bid.

16. **Non-Collusion Affidavit:** The successful bidder will be required to submit non-collusion affidavit on the form included in these Bid/Contract Documents (SECTION 00 30 10 and 00 30 20). These affidavits shall be dated and executed as part of this bid.

17. **Real and/or Personal Property Tax Affidavit:** All bidders must complete the Real and/or Personal property tax affidavit (Section 00 30 30) and submit with your bid. This section should be fully completed whether or not you as a vendor/contractor own property in Warren County, Ohio.

18. **EEO Compliance:** Equal Employment Opportunity (EEO) compliance requirements and affidavits are contained in SECTION 00 30 50. Owner contracts that receive state or federal funding including, but not limited to, grants, loans, and debt forgiveness shall not be executed unless the Contractor possesses a current Certificate of Compliance issued by the State EEO Coordinator.

Every contract for or on behalf of the County for the construction, alteration, or repair of any public building or public work shall include an affidavit certifying the contractor complies with EEO requirements specified in Ohio Revised Code Section 153.59.

19. **Bid Security:**

A bid guaranty, as required by Ohio Revised Code, Section 153.54, shall accompany each proposal submitted, as follows:

1. A Certified check, cashier's check, or letter of credit equal to ten (10) percent of the bid. A letter of credit may only be revocable by the Owner. Upon entering into a contract with the Owner, the contractor must file a performance bond for the amount of the contract, and the bid guaranty will then be return to the successful and unsuccessful bidders upon request.

**OR**

2. A form of bid guaranty bond (attached) for the full amount of the bid. Such bond is retained for the successful bidder but returned to unsuccessful bidders after the contract is executed.

Such cash, checks or bid bonds will be returned to bidders after the Owner has awarded the bid and has executed the contract, or, if no award has been made within 60 days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he/she has not been notified of the acceptance of his/her bid.

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

20. **Liquidated Damages for Failure to Enter into Contract:** Submission of a bid shall be a representation by the Contractor that it has fully reviewed and is familiar with the Contract and all contract documents as defined in the contract and will execute the contract if awarded the bid. The successful bidder, upon his/her failure or refusal to execute and deliver the contract (attached hereto) and bonds required within 10 working days after he/she has received the documents, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his/her bid.

21. **Security for Faithful Performance:** Simultaneously with his/her delivery of the executed contract, the Contractor shall furnish a performance (surety) bond as security for faithful performance of this contract and for the payment of all persons performing labor on project under this contract and furnishing materials in connection with the contract. The surety on such bond or bonds shall be duly authorized surety company satisfactory to the Owner. Please note that upon execution of the Contract if a Bid Guaranty/Contract Bond was submitted with your original bid a Performance Bond will not be required.

22. **Required Insurance:** In accordance with the specifications and the Supplemental Conditions, the Contractor, without restricting the obligations and liabilities assumed under the Contract Documents, shall at his own cost and expense purchase and maintaining in force until final acceptance of his work, the forms of insurance coverage as described in Section 00 80 10 Supplemental Conditions 1.2.C. Article 5 – Bonds and Insurance.

Certificates from the insurance carrier stating the limits of liability and expiration date shall be filed with the Owner before operations are begin. Such certificates shall not merely name the types of policy provided but shall specifically refer to this Contract and shall name the Board of Warren County Commissioners as additionally insured.

However, the original policy for Owner's Protective Bodily Injury (Item D) and Property Damages (Item E) shall at this time be delivered to the Owner for its possession.

All policies as hereinafter required shall be so written that the Owner will be notified of cancellation or restrictive amendment at least ten days prior to the effective date of such cancellation or amendment.

Item A - Workers Compensation and/or Employer's liability Insurance as required or specified by State Law.

Item B – Comprehensive General Liability Insurance: In an amount not less than \$1,000,000.00 per occurrence for Bodily Injury and \$500,000 for explosion underground and collapse, commonly known as “XCU.” The following endorsement documents provided by Warren County:

- a. CG 20 10 10 01 – additional insured endorsement (or equivalent)
- b. CG 20 37 10 01 – additional insured endorsement (or equivalent)
- c. CG 25 03 03 97 – designated location aggregate (or equivalent)

General Liability needs to be written on Primary/Non-contributory basis for the benefit of the additional insured.

Item C – Umbrella: In an amount not less than \$1,000,000 occurrence and \$1,000,000 aggregate. Umbrella needs to attach to General Liability, Employers Liability, Auto Liability. Umbrella needs to be written on follow-form primary.

Item D - Bodily Injury Liability Insurance covering motor vehicles either owned by the Contractor or being used in connection with the prosecution of the work embraced under this contract.

Item E - Property Damage Liability Insurance covering motor vehicles either owned by the Contractor or being used in connection with the prosecution of the work embraced under this contract.

Item F - (If Applicable) - Such Protective (including Railroad Protective) and Contractual Bodily Injury Liability Insurance and such Protective (including Railroad Protective) and Contractual Property Damage Liability Insurance as shall be required by the railroad and other utility companies whose property, facilities or rights-of-way may be affected by the work to be done under this contract, in such amounts and in such form as each such utility company may require.

If any part of the work is sublet, insurance of the same types and limits as required by above items numbered A, B, C, D, E, and F shall be provided by or on behalf of the Subcontractors to cover that part of the work they have contracted to perform including Property Damage Liability Special Hazards coverage if so required by this contract.

Protective and Contractual Bodily Injury Liability Insurance required by Item F (if applicable) shall be in an amount and form as each railroad or utility company may require.

**Builders Risk Insurance:** All Risk form, including subsidence and theft of materials from the job site. Such coverage shall be maintained until final acceptance of the Contract by the Owner and payable to the Owner for the benefit of the contractor. The limit for Builders Risk shall be the full value of construction.

All policies as hereinafter required shall be so written that the Owner will be notified of cancellation or restrictive amendment at least sixty days prior to the effective date of such cancellation or amendment.

If any part of the work is sublet, insurance of the same types and limits as required shall be provided by or on behalf of the Subcontractors to cover that part of the work they have contracted to perform including Property Damage Liability Special Hazards coverage if so required by this contract.

23. **Additional Obligations Upon Contract Award:** Upon award of the bid but prior to execution of the final agreement and notice to proceed, the Contractor shall submit all of the following documents, completed as required:

1. Contract
2. Performance Bond
3. Certificates of Insurance

24. **Wage Rates:** This Project is subject to Prevailing Wage Requirements. In the event that the rate of wages paid for any trade or occupant in the locality where such work is being performed are under current collective agreements or understandings between bona fide organizations of labor and employer, then the wages to be paid shall be not less than such agreed wage rates, nor less than the minimum rates compiled by the Federal Labor Standard Act. Copies of these prevailing wage rates have been included in these specifications. Every Contractor and Subcontractor who is subject to Ohio Revised Code, Chapter 4115 shall, as soon as he begins performance under his contract with the Owner, supply the Prevailing Wage Coordinator for the Owner a schedule of the dates on which he is required to pay wages to employees. He shall also deliver to the Prevailing Wage Coordinator within three weeks after each pay date, a certified copy of his payroll which shall exhibit for each employee paid any wages, name, current address, social security number, number of hours worked each day of the pay period and the total for each week, hourly rate of pay, job classification, fringe payments, and deductions from wages. The certification of each payroll shall be executed by the Contractor, Subcontractor, or duly appointed agent thereof and shall recite that the payroll is correct and complete and that the wage rate shown is not less than those required by the contract.

In case the Owner orders the Contractor to perform extra or additional work which may make it necessary for the Contractor or any Subcontractor under this contract to employ a person not herein specified, the Contractor will include in the contract change order for such extra or additional work, a minimum wage rate for such trade or occupation, and insofar as such extra or additional work is concerned, there shall be paid to each employee engaged in work of such trade or occupation, not less than the wage so included. Insofar as possible, local labor shall be employed on this work.

25. **Laws and Regulations:** The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities have jurisdiction

over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

26. **Foreign Corporation and Contractors:** "Foreign Corporations" means a corporation incorporated under the laws of another state. No contract shall be entered into with a foreign corporation until the Secretary of State has certified that such corporation is authorized to do business in Ohio: and until, if the bidder so awarded the Contract is a person or partnership, it has filed with the Secretary of State a Power of Attorney designating the Secretary of State as its agent for the purpose of accepting service of summons in any action brought under Ohio Revised Code, Section 153.05 or under Sections 4123.01 to 4123.94, inclusive.

27. **Safety Standards and Accident Prevention:** With respect to all work performed under this Contract, the Contractor shall:

- a. Comply with the safety standards provisions of applicable laws, building and construction codes and the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of title 29 of the code of Federal Regulations, Section 1518 as published in the "Federal Register", Volume 36, N. 75, Saturday, April 17, 1971.
- b. Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) and property.
- c. Maintain at his/her office or other well-known place at the job site, all articles necessary for giving first aid to the injured and shall make standing arrangements for the immediate removal to a hospital or doctor's care of persons (including employees) who may be injured at the job site. In no case shall employees be permitted to work at a job site before the employer has made a standing arrangement for removal of injured persons to a hospital or a doctor's care.

28. **Examination of Site:** Each bidder shall and is hereby directed to inspect the entire site of the proposed work and judge for him/herself as to all the circumstances affecting the cost and progress of the work and shall assume all patent and latent risks in connection therewith.

29. **Soil Conditions:** Subject to the convenience of the Owner, prospective bidders will be permitted to explore the site by making borings or digging test pits. In such event, the work shall be done at the sole expense and risk of the bidder, and he/she shall maintain and restore the site to original condition. The Owner does not guarantee the accuracy of any information or samples which it may have obtained from test borings or otherwise as to the kind or condition of the soil that may be encountered in the prosecution of the proposed work, neither does the Owner represent that the plans and specifications drawn are based upon any data so obtained. The Owner does not make any representation as to the soil which may be encountered or of soil or water which underlies the work or is adjacent thereto, including any difficulties that may be due to quicksand, or other unfavorable conditions that may be encountered in the work, whether apparent upon surface inspection or disclosed in the process of carrying forward the work

30. **Permits:** Contractor shall keep a copy of all permits at the project site throughout the duration of the work. The permits required for the work, the permit holder, and the entity paying

for the permit is outlined below. All obtained permits acquired to date are included in SECTION 00 70 20.

31. **Maintenance of Rights-Of-Way:** All construction as proposed along all City, Township, County, State and Federal roads including storage and stockpiling of materials, is to be conducted within the limits of the public right-of-way. Bracing sheeting and shoring shall be used to keep all construction work within the construction limits unless work agreements are secured from the adjacent property Owners. It is the Contractor's responsibility to secure these work agreements, if deemed necessary. Copies of the work agreements shall be delivered to the Engineer and Owner prior to any work beginning on the affected property.

32. **Lights, Signs and Barricades:** Lights, signs and barricades shall be used to maintain traffic and safety for vehicular and pedestrian traffic during the course of this contract and shall be the sole responsibility of the Contractor.

33. **Subcontracts:** Contractor shall provide upon request of the Owner a list of all subcontractors intended to be used in performance of the work. In the event the Owner does not object, Contractor may have such work performed by a subcontractor. Contractor shall bind every subcontractor to, and every subcontractor must agree to be bound by the terms of the Agreement, as far as applicable to the subcontractor's work particularly pertaining to Prevailing Wages and EEO requirements. Nothing contained in the Agreement shall create any contractual relationship between any subcontractor and Owner, nor create any obligations on the part of the Owner to pay or see to the payment of any sums to any subcontractor.

34. **Subletting of Contract:** The Contractor shall not sublet, sell, transfer, or assign any portion of the contract without written consent of the Owner or his designated agent. When such consent is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with his own organization, work amounting to no less than fifty percent of the total contract cost, except that any time designated in the contract before computing the amount of work required to be performed by the Contractor with his own organization, no subcontract, or transfer of contract, shall in any way release the Contractor of his liability under the contract and bonds.

35. **CONFIDENTIAL DOCUMENTS & INFORMATION:** Do not submit confidential documents or documents of any type that contain trade secrets. All materials submitted become public records once opened and may be copied upon request to anybody including competitive bidders.

END OF SECTION

**SECTION 00 30 10  
NONCOLLUSION AFFIDAVIT – FORM 1**

State of \_\_\_\_\_  
\_\_\_\_\_

BID Identification \_\_\_\_\_

CONTRACTOR \_\_\_\_\_ being first duly sworn, deposes and says that he is \_\_\_\_\_ (sole owner, a partner, president, secretary, etc.) of \_\_\_\_\_, the party making the foregoing BID; that such BID is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization, or corporation; that such BID is genuine and not collusive or sham; that said BIDDER has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham BID, or that any one shall refrain from Bidding; that 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, or to fix any overhead, profit, or cost element of such BID price, or of that of any other BIDDER, or to secure any advantage against the OWNER awarding the contract or anyone interested in the proposed contract; that all statement contained in such BID are true; and, further, that said BIDDER has not, directly or indirectly, submitted his BID price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid and will not pay any fee in connection therewith, to any corporation, partnership, company, association, organization, BID depository, or to any member or agent thereof, or to any other individual except to such person or persons who have a partnership or other financial interest with said BIDDER in his general business.

Signed:

\_\_\_\_\_

Subscribed and sworn to before

me this \_\_\_ day of \_\_\_\_\_, 2021.

Seal of Notary

\_\_\_\_\_



**SECTION 00 30 20  
NONCOLLUSION AFFIDAVIT – FORM 2**

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

I, \_\_\_\_\_, holding the title and position of \_\_\_\_\_ at the firm \_\_\_\_\_, affirm that I am authorized to speak on behalf of the company, board directors and owners in setting the price on the contract, bid or proposal. I understand that any misstatements in the following information will be treated as fraudulent concealment of true facts on the submission of the contract, bid or proposal.

I hereby swear and depose that the following statements are true and factual to the best of my knowledge:

The contract, bid or proposal is genuine and not made on the behalf of any other person, company or client, INCLUDING ANY MEMBER OF THE WARREN COUNTY BOARD OF COMMISSIONERS.

The price of the contract, bid or proposal was determined independent of outside consultation and was not influenced by other companies, clients, or contractors, INCLUDING ANY MEMBER OF THE WARREN COUNTY BOARD OF COMMISSIONERS.

No companies, clients, or contractors, INCLUDING ANY MEMBER OF THE WARREN COUNTY BOARD OF COMMISSIONERS have been solicited to propose a fake contract, bid or proposal for comparative purposes.

No companies, clients, or contractors, INCLUDING ANY MEMBER OF THE WARREN COUNTY BOARD OF COMMISSIONERS have been solicited to refrain from bidding or to submit any form of noncompetitive bidding.

Relative to sealed bids, the price of the bid or proposal has not been disclosed to any client, company or contractor, INCLUDING ANY MEMBER OF THE WARREN COUNTY BOARD OF COMMISSIONERS, and will not be disclosed until the formal bid/proposal opening date.

\_\_\_\_\_  
AFFIANT

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 2021.

\_\_\_\_\_  
(Notary Public),

\_\_\_\_\_ County.

My commission expires \_\_\_\_\_ 20\_\_

**SECTION 00 30 30**  
**AFFIDAVIT OF NON-DELINQUENCY OF REAL AND/OR**  
**PERSONAL PROPERTY TAX**

THIS SECTION SHOULD BE FULLY COMPLETED WHETHER OR NOT YOU AS A VENDOR/CONTRACTOR OWN PROPERTY IN WARREN COUNTY, OHIO. MAKING A FALSE STATEMENT ON THIS AFFIDAVIT MAY BE PUNISHABLE BY A FINE AND/OR IMPRISONMENT.

STATE OF \_\_\_\_\_ )

SS:

COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_ being duly cautioned and sworn, states as follows:

1. That he/she is \_\_\_\_\_ of  
(Title)

\_\_\_\_\_  
(Name of Contracting Party)

2. That \_\_\_\_\_ is not presently charged with any  
(Name of Contracting Party)  
delinquent Real and/or Personal property taxes on the general tax list of Real and/or  
Personal property of Warren County.

-OR-

1. That \_\_\_\_\_ is charged with delinquent Real and/or  
(Name of Contracting Party)

Personal property tax on the general tax list of Real and/or Personal property of Warren  
County. The amount of delinquent Real and/or Personal property tax due and unpaid  
including any due and unpaid penalty and interest is:

\$ \_\_\_\_\_

Further, affiant states not.

\_\_\_\_\_  
Affiant

Sworn to and subscribed in my presence this \_\_\_\_ day of \_\_\_\_\_ 2021.

\_\_\_\_\_  
Notary Public

This instrument was prepared by \_\_\_\_\_.

Note to Fiscal Office: If any Real and/or Personal property taxes are delinquent, you must send a copy of this statement to the County Treasurer within 30 days of the date it is submitted.

**SECTION 00 30 40  
FINDINGS FOR RECOVERY AFFIDAVIT**

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_, SS:

\_\_\_\_\_, upon being duly cautioned and sworn, hereby states the following based on personal knowledge:

- 1) That he/she is \_\_\_\_\_ (title), of \_\_\_\_\_ (name of bidder) and authorized to execute this affidavit; and,
- 2) That \_\_\_\_\_ (name of bidder) is not a person or entity against whom a finding for recovery has been issued by the Auditor of State, which finding for recovery is unresolved as defined in Ohio Revised Code [General Provisions] Section 9.24 (B); and,
- 3) That \_\_\_\_\_ (name of bidder) does not appear in the database of unresolved findings of recovery maintained by the Auditor of State pursuant to Ohio Revised Code [General Provisions] Section 9.24 (D).

\_\_\_\_\_  
Affiant

Sworn to and subscribed in my presence this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

\_\_\_\_\_  
Notary Public

My Commission expires: \_\_\_\_\_

## **SECTION 00 30 50**

### **EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS, BID CONDITIONS, NON-DISCRIMINATION, AND EQUAL EMPLOYMENT OPPORTUNITY AFFIDAVIT**

Bidders shall submit a copy of a valid Certificate of Compliance issued by the State EEO Coordinator for Owner projects that receive state or federal funding. The source of financing and funding for this project is specified in SECTION 00 20 00 – INSTRUCTIONS TO BIDDERS. Bidders may contact the State of Ohio, Department of Administrative Services, Equal Opportunity Division for information on how to apply online for a certification using the Ohio Business Gateway.

Every contract for or on behalf of the County for the construction, alteration, or repair of any public building or public work shall include an affidavit certifying the contractor complies with EEO requirements specified in Ohio Revised Code Section 153.59. In addition to the affidavit, all bidders agree to the following State of Ohio standard conditions of contract for construction:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex. Such action shall include, but is not limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor will in all solicitations or advertisements for employees placed by or on behalf of the prime contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex..
3. The contractor agrees to fully cooperate with the County, the State Equal Employment Opportunity Coordinator and with any other official or agency, or the State or Federal government which seeks to eliminate unlawful employment discrimination, and with all other State and Federal efforts to assure equal employment practices under its contract and the contractor shall comply promptly with all requests and directions from the County, the State Equal Opportunity Coordinator and any of the State of Ohio officials and agencies in this regard, both before and during construction.
4. Full cooperation as expressed in clause (3), above, shall include, but not be limited to, being a witness and permitting employees to be witnesses and complainants in any proceedings involving questions of unlawful employment practices, furnishing all information requested by the County and the State Equal Employment Opportunity Coordinator, and permitting access to its books, records, and accounts by the County and the State Equal Employment Opportunity Coordinator for purposes of investigation to ascertain compliance with

applicable rules, regulations and orders.

5. In the event of the contractor's noncompliance with the nondiscrimination clauses of its contract or with any of the said rules, regulations, or orders, its contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further County construction contracts.

In the event that is contract is terminated for a material breach of EEO requirements, the contractor shall become liable for any and all damages which shall accrue to the County as a result of said breach.

6. The contractor will require the inclusion of language reflecting these same six covenants within every subcontract or purchase order it executes in the performance of its contract unless exempted by rules, regulations or orders of the State Equal Employment Opportunity Coordinator so that these provisions will be binding upon each subcontractor or vendor. The contractor will take such as the County may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in any litigation with a subcontractor, vendor or other party as a result of such direction by the County, the contractor may be requested to protect the interests of the County.

The bidder hereby adopts the foregoing covenants?

\_\_\_\_\_ Yes      \_\_\_\_\_ No

PLEASE NOTE: The bidder's failure to adopt the Bidder's EEO Covenants, will cause the bidder's proposal to be rejected as being non-responsive.

CERTIFICATE OF COMPLIANCE NON-DISCRIMINATION AND EQUAL EMPLOYMENT  
OPPORTUNITY AFFIDAVIT (CONTRACTOR)

STATE OF \_\_\_\_\_ )

SS:

COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_ being first duly sworn, deposes and

says that he/she is \_\_\_\_\_ of \_\_\_\_\_

the party who made the foregoing proposal; that such party as bidder does not and shall not discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex. If awarded the bid and contract under this proposal, said party shall take affirmative action to insure that applicants are employed and that employees are treated, during employment, without regard to their race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex.. If successful as the lowest and best bidder under the foregoing proposal, this party shall post non-discrimination notices in conspicuous places available to employees and applicants for employment setting forth the provisions of this affidavit.

Furthermore, said party agrees to abide by the assurances found in Section 153.54 of the Ohio Revised Code in the Contract Provisions with the Owner if selected as the successful bidder by the Owner.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Affiant

\_\_\_\_\_  
Company/Corporation

\_\_\_\_\_  
Address

\_\_\_\_\_  
City/State/Zip Code

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

(seal) \_\_\_\_\_  
Notary

CERTIFICATE OF COMPLIANCE NON-DISCRIMINATION AND EQUAL EMPLOYMENT  
OPPORTUNITY AFFIDAVIT (SUB CONTRACTOR)

STATE OF \_\_\_\_\_)

SS:

COUNTY OF \_\_\_\_\_)

\_\_\_\_\_ being first duly sworn, deposes and

says that he \_\_\_\_\_ of \_\_\_\_\_

the party who made the foregoing proposal; that such party as bidder does not and shall not discriminate against any employee or applicant for employment because of race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex. If awarded the bid and contract under this proposal, said party shall take affirmative action to insure that applicants are employed and that employees are treated, during employment, without regard to their race, color, religion, national origin, age, disability, Vietnam era Veteran status, ancestry or sex. If successful as the lowest and best bidder under the foregoing proposal, this party shall post non-discrimination notices in conspicuous places available to employees and applicants for employment setting forth the provisions of this affidavit.

Furthermore, said party agrees to abide by the assurances found in Section 153.54 of the Ohio Revised Code in the Contract Provisions with the Owner if selected as the successful bidder by the Owner.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Affiant

\_\_\_\_\_  
Company/Corporation

\_\_\_\_\_  
Address

\_\_\_\_\_  
City/State/Zip Code

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

(seal)

\_\_\_\_\_  
Notary

**SECTION 00 40 00**  
**BONDING REQUIREMENTS**

**Bid guaranty**, as required by Ohio Revised Code, Section 153.54, shall accompany each proposal submitted, as follows, either:

1. A Certified check, cashier's check, or letter of credit equal to ten (10) percent of the bid. A letter of credit may only be revocable by the Owner.

OR

2. A form of bid guaranty and contract bond (attached) for the full amount of the bid. Such bond is retained for the successful bidder but returned to unsuccessful bidders after contract is executed.

**Performance bond** is required upon entering into a contract with the Owner for 100 percent of the contract price when the bid guaranty is a certified check, cashier's check, or letter of credit equal to ten percent. Otherwise, the bid guaranty and contract bond shall secure the performance of the contract with a penal sum of 100% of the bid. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.



**SECTION 00 40 10**  
**BID GUARANTY AND CONTRACT BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

---

(Insert full name or legal title of Contractor and Address)

as Principal and

---

(Insert full name or legal title of Surety)

as Surety, are hereby held and firmly bound unto the Warren County Board of Commissioners hereinafter called the Obligee, in the penal sum of the dollar amount of the bid submitted by the Principal to the Obligee on \_\_\_\_\_ to undertake the project known as:

**COLUMBIA ROAD WATER MAIN IMPROVEMENTS – PHASE 2**

The penal sum referred to herein shall be the dollar amount of the Principal's bid to the Obligee, incorporating any additive or deductive alternate proposals made by the Principal on the date referred to above to the Obligee, which are accepted by the Obligee, In no case shall the penal sum exceed the amount of \_\_\_\_\_ DOLLARS, \$ \_\_\_\_\_. If this item is left blank, the penal sum will be the full amount of the Principal's bid, including alternates. Alternatively, if completed, the amount stated must not be less than the full amount of the bid, including alternates in dollars and cents. A percentage is not acceptable.

For the payment of the penal sum well and truly to be made we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above-named Principal has submitted a bid on the above referred to project;

NOW, THEREFORE, if the Obligee accepts the bid of the Principal and the Principal fails to enter into a proper contract in accordance with the bid, plans, details, specifications, and bills of material; and in the event the Principal pays to the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid and such larger amount for which the Obligee may in good faith contract with the next lowest bidder to perform the work covered by the bid; or in the event the Obligee does not award the contract to the next lowest bidder and resubmits the project for bidding, the Principal will pay the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission, of printing new contract documents, required advertising, and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect.

If the Obligee accepts the bid of the Principal and within TEN days after the awarding of the contract, enters into a proper contract in accordance with the bid, plans, details, specifications, and bills of material, which said contract is made a part of this bond the same as though set forth herein; and

IF THE SAID PRINCIPAL SHALL well and faithfully perform each and every condition of such contract; and indemnify the Obligee against all damage suffered by failure to perform such contract according to the provisions thereof and in accordance with the plans, details, specifications, and bills of material therefore; and shall pay all lawful claims of subcontractors, materialmen, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said contract: we agreeing and assenting that this undertaking shall be for benefit of any materialman or laborer having a just claim, as well as for the Obligee herein; THEN THIS OBLIGATION SHALL be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

THE SAID surety hereby stipulates and agrees that no modifications, omissions, or additions, in or to the terms of said contract or in or to the plans and specifications therefor shall in any wise affect the obligations of said surety on its bond, and it does hereby waive notice of any such modifications, omissions or additions to the terms of the contract or to the work or to the specifications.

SIGNED AND SEALED this \_\_\_\_ day of \_\_\_\_\_ 2021.

\_\_\_\_\_  
PRINCIPAL

\_\_\_\_\_  
SURETY

By: \_\_\_\_\_

By: \_\_\_\_\_

Attorney-in-fact

Title: \_\_\_\_\_

Surety Agent's Name and Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**SECTION 00 40 20  
PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_, hereinafter called  
(Corporation, Partnership or Individual)

Principal, and \_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

WARREN COUNTY OHIO, BOARD OF COMMISSIONERS  
406 Justice Drive  
Lebanon, OH 45036

hereinafter called OWNER, in the penal sum of \_\_\_\_\_ Dollars, \$(\_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, 2021, a copy of which is hereto attached and made a part hereof for the construction of:

**COLUMBIA ROAD WATER MAIN IMPROVEMENTS – PHASE 2**

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the guaranty period(s), and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition of the terms of the contract or the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in

any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_ 2021.

ATTEST: \_\_\_\_\_  
(Principal)

\_\_\_\_\_  
(SEAL) By \_\_\_\_\_

\_\_\_\_\_

ATTEST: \_\_\_\_\_

\_\_\_\_\_  
(SEAL) (Surety)

\_\_\_\_\_

\_\_\_\_\_

IMPORTANT: Pursuant to Ohio Revised Code §122.87(A) defines surety company as, “. . . a company that is authorized by the department of insurance to issue bonds as a surety”.

**SECTION 00 50 10**  
**EXPERIENCE STATEMENT**

The Bidder is required to state in detail in the space provided below, what work they have completed of a character similar to that included in the proposed contract, to give references and such other detailed information as will enable the Owner to judge their responsibility, experience, skill, and financial standing. Completion of this statement is required and must be submitted with the Bid in order to qualify for consideration for award of contract.

SUBMITTED FOR:

**COLUMBIA ROAD WATER MAIN IMPROVEMENTS – PHASE 2**

SUBMITTED BY:

Name: \_\_\_\_\_

(Print or Type Name of Bidder)  
(A Corporation / A Partnership / An Individual)  
[Bidder to strike out inapplicable terms.]

Address: \_\_\_\_\_

The undersigned certifies under oath the truth and correctness of all statements and of all answers to questions made hereinafter.

(Note: Attach Separate Sheets as Required)

1.0 How many years has your organization been in business as a construction contractor?

\_\_\_\_\_

2.0 How many years has your organization been in business under its present name?

\_\_\_\_\_

3.0 Has any construction contracts to which you have been a party been terminated by the owner; have you ever terminated work on a construction project prior to its completion for any reason; has any surety which issued a performance bond on your behalf ever completed the work in its own name or financed such completion on your behalf; has any surety expended any monies in connection with a contract for which they furnished a bond on your behalf? If the answer to any portion of this question is "yes", please furnish details of all such occurrences including name, address, phone number, and contact person of owner, engineer, and surety, and name and date of project.

No \_\_\_\_\_ Yes \_\_\_\_\_, If yes, attach details described above.



10.0 List the states in which your organization is legally qualified to do business.

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11.0 List name, address and telephone number of an individual who represents each of the following and whom OWNER may contact for a financial reference:

11.1 A surety:

Name \_\_\_\_\_

Contact \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_ Phone No. \_\_\_\_\_

Financial Reference \_\_\_\_\_

11.2 A bank:

Name \_\_\_\_\_

Contact \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_ Phone No. \_\_\_\_\_

Financial Reference \_\_\_\_\_

11.3 A major material supplier:

Name \_\_\_\_\_

Contact \_\_\_\_\_

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Financial Reference \_\_\_\_\_

12.0 Dated at \_\_\_\_\_ this \_\_\_ day of \_\_\_\_\_, 2021.

(Print or Type Name of Bidder)

By: \_\_\_\_\_

(Seal, if corporation)

------(Affidavit for Individual)-----

\_\_\_\_\_, being duly sworn, deposes and says that all of the foregoing qualification information is true, complete, and accurate.

------(Affidavit for Partnership)-----

\_\_\_\_\_, being duly sworn, deposes and says that he/she is a member of the partnership of \_\_\_\_\_ and that all of the foregoing qualification information is true, complete, and accurate.

------(Affidavit for Corporation)-----

\_\_\_\_\_, being duly sworn, deposes and says that he/she is \_\_\_\_\_ of \_\_\_\_\_, and that all of the (Full name of Corporation)

foregoing qualification information is true, complete, and accurate.

------(Affidavit for Joint Venture)-----

\_\_\_\_\_ and \_\_\_\_\_, being duly sworn, deposes and says that they are members of \_\_\_\_\_ (Full Name of Joint Venture)

, and that all of the foregoing qualification information is true, complete, and accurate.



------(Acknowledgment) -----

\_\_\_\_\_, being duly sworn, deposes and says that he/she is  
of \_\_\_\_\_; that he/she is duly authorized to make the foregoing  
(Name of Bidder)

affidavit and that he/she makes it on behalf of ( ) himself/herself; ( ) said partnership; ( )  
said corporation.

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2021, in the County  
of \_\_\_\_\_, State of \_\_\_\_\_.

(Notary Public)

My commission expires \_\_\_\_\_

(Seal)

**SECTION 00 60 10  
CONTRACT**

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_, 2021, with the Warren County Board of Commissioners, 406 Justice Drive, Lebanon, Ohio, hereinafter called "Owner" and **ENTER CONTRACTOR NAME**, doing businesses as (an individual, partner, a corporation) hereinafter called "Contractor."

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Owner, the Contractor hereby agrees with the Owner to commence and complete the construction described as follows:

**COLUMBIA ROAD WATER MAIN IMPROVEMENTS – PHASE 2**

hereinafter called the project, for the sum of \$ **ENTER AMOUNT**, and all work in connection therewith, under the terms as stated in the General Conditions and Supplemental Conditions of the Contract; and as his (its or their) own proper cost and expense furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in Contract Documents. "Contract Documents" means and includes the following:

- Addendum
- Division 00 – Contract Requirements
- Division 01 to 48 – Technical Specifications
- General Conditions
- Supplemental Conditions
- Any and All Bid Documents
- Construction Drawings

CONTRACTOR hereby agrees to commence work under this contract on or before a date to be specified in a Written "Notice to Proceed" of the OWNER and shall complete all work within the following requirements:

Substantial Completion:        120 Days from Notice to Proceed.

Final Completion:            150 Days from Notice to Proceed.

Any delays in substantial completion of the work that are within the control of the Contractor, their Subcontractor, or Supplier shall be subject to liquidated damages in the sum of \$200.00 for each consecutive calendar day that the project extends beyond the substantial completion deadline.

This Agreement may be terminated by either party upon written notice in the event of substantial failure by the other party to perform in accordance with the terms of this Agreement. The nonperforming party shall have fifteen calendar days from the date of the termination notice to cure or to submit a plan for cure acceptable to the other party.

OWNER may terminate or suspend performance of this Agreement for OWNER'S convenience upon written notice to the CONTRACTOR. CONTRACTOR shall terminate or suspend performance of the services/work on a schedule acceptable to the OWNER.

The CONTRACTOR will indemnify and save the OWNER, their officers and employees, harmless from loss, expenses, costs, reasonable attorney's fees, litigation expenses, suits at law or in equity, causes of action, actions, damages, and obligations arising from (a) negligent, reckless or willful and wanton acts, errors or omissions by CONTRACTOR, its agents, employees, licensees, consultants, or subconsultants; (b) the failure of the CONTRACTOR, its agents, employees, licensees, consultants or subconsultants to observe the applicable standard of care in providing services pursuant to this agreement; (c) the intentional misconduct of the CONTRACTOR, its agents, employees, licensees, consultants, or subconsultants that result in injury to persons or damage to property. for which the OWNER may be held legally liable.

The CONTRACTOR does hereby agree to indemnify and hold the OWNER harmless for any and all sums for which the OWNER may be required to pay or for which the OWNER may be held responsible for failure of the CONTRACTOR or any subcontractors to pay the prevailing wage upon this project.

The OWNER agrees to pay the CONTRACTOR in the manner and at such times as set forth in the General Conditions and as amended in the Supplemental Conditions and in such amounts as required by the Contract Documents.

This Contract shall be construed under the laws of the State of Ohio, and the parties hereby stipulate to the venue for any and all claims, disputes, interpretations, litigation of any kind arising out of this Contract being exclusively in the Warren County, Ohio Court of Common Pleas (unless both parties mutually agree in writing to alternate dispute resolution), as well as waiving any right to bring or remove such matters in or to any other state or federal court.

This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

Contractor shall bind every subcontractor to, and every subcontractor must agree to be bound by the terms of, this Agreement, as far as applicable to the subcontractor's work particularly pertaining to Prevailing Wages and EEO requirements. Nothing contained in this Agreement shall create any contractual relationship between any subcontractor and Owner, nor create any obligations on the part of the Owner to pay or see to the payment of any sums to any subcontractor.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in two counterparts, each of which shall be deemed an original on the date first above written.

ATTEST:

WARREN COUNTY BOARD OF COMMISSIONERS

(Owner)

\_\_\_\_\_

\_\_\_\_\_

Name

David G. Young, President

(Seal)

ATTEST:

**ENTER NAME**

(Contractor)

\_\_\_\_\_

By: \_\_\_\_\_

Name

\_\_\_\_\_

Title

Approved as to Form:

\_\_\_\_\_  
Assistant Prosecutor

**SECTION 00 70 10**  
**WAGE RATE DETERMINATION**

Prevailing wage rates for the State of Ohio apply to this project. Contractors and Subcontractor(s) shall conform to the State of Ohio Department of Labor requirements, guidelines, and laws. Included in this section is a list of the Ohio Prevailing Wage Rates available at the time of publication. It is the responsibility of the Contractor and Subcontractor(s) to verify the wage rates prior to bidding and throughout the project. A complete list of Ohio Prevailing Wage Rates is available at the Ohio Wage and Hour website or from the Ohio Department of Commerce Wage and Hour Bureau.



**Mike DeWine**  
Governor

**Sheryl Maxfield**  
Director

# **PREVAILING WAGE GUIDE**

**WARREN COUNTY**

**OHIO DEPARTMENT OF COMMERCE**

Division of Industrial Compliance  
Bureau of Wage and Hour Administration  
6606 Tussing Road, PO Box 4009  
Reynoldsburg, Ohio 43068-9009  
Phone: 614-644-2239  
Fax: 614-728-8639  
[www.com.ohio.gov](http://www.com.ohio.gov)  
TTY/TDD: 1-800-750-0750

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This packet of information is provided as a summary of the Prevailing Wage guidelines and responsibilities. The Ohio Revised Code, Chapter 4115 should be referred to for the exact wording of the law. Also included are references and forms which should be helpful in the compliance of the Prevailing Wage Law.

## PACKET INFORMATION INDEX

### A. The Ohio Department of Commerce-Division of Industrial Compliance, Wage and Hour Administration Investigators and their assigned counties

1. The Wage and Hour Investigators for the State of Ohio are listed with their contact information.
  - a. If you have questions or need assistance pertaining to Prevailing Wage, you can contact the Investigator in your area.

### B. Prevailing Wage Guide for Public Authorities

1. Notice of change of the Prevailing Wage Threshold Level.
  - a. A notification will be sent to you when there is a change of the Prevailing Wage threshold level
2. Outline of the Public Authority's responsibilities for Prevailing Wage.
3. Public Authority's Compliance Checklist form.
  - a. A form for tracking the progress of a Prevailing Wage project
4. Request form for Prevailing Wage Rates.
  - a. Prevailing Wage Rates can be obtained on the website [www.com.ohio.gov](http://www.com.ohio.gov)
    - (1) Prevailing Wage Determination Schedule of wages must be attached to and made part of the specifications for the project, and must be printed on the bidding blanks where the work is done by contract.
5. Bid Tabulation form
  - a. A form to be completed and returned to ODOC-DIC-Bureau of Wage and Hour Administration when the contract has been awarded.
6. Prevailing Wage Bonds form
  - a. Information needed to be kept on file by the Prevailing Wage Coordinator when bonds from the Public Authority are used for a project.

### C. Prevailing Wage Guidelines for the Public Authority's Coordinator

1. Guideline for the Prevailing Wage Coordinator
  - a. The Prevailing Wage complaint form and instructions can be obtained on the website [www.com.ohio.gov](http://www.com.ohio.gov)
2. Record of the Certified Payroll Reports Received form
  - a. Helpful form for recording the Certified Payroll Reports and the dates received from the contractors and subcontractors.
3. Employee Interview form
  - a. Helpful form for the use by the Prevailing Wage Coordinator when making on-site visits.
4. Employee vs. Independent Contractor
  - a. Helpful questions when determining if a person is an Employee or an Independent Contractor.

### D. Prevailing Wage Guide for Contractors

(Incorporate this section in the Specifications or supply copies for the pre-construction meeting.)

1. Outline of responsibilities for the Prevailing Wage Contractor
2. Notification form from the Contractor to the Employee
  - a. The contractor must submit to employees a completed and signed notification form.
  - b. Some Prevailing Wage Coordinators may require a copy of the completed Notification to the Employee form be submitted with the Certified Payroll Reports.
3. Certified Payroll Report form
  - a. The contractor can use any form/format he chooses as long as **ALL** the information has been provided.
4. Certified Payroll Report form instruction sheet
5. Corrected Certified Payroll Report Example
6. Affidavit of Compliance form
  - a. No Public Authority shall make final payment unless the **Final Affidavits** have been filed by the contractors and subcontractors.



**Mike DeWine**  
Governor

**Sheryl Maxfield**  
Director

# **INVESTIGATORS CONTACT INFORMATION**

## **OHIO DEPARTMENT OF COMMERCE**

Division of Industrial Compliance  
Bureau of Wage and Hour Administration  
6606 Tussing Road, PO Box 4009  
Reynoldsburg, Ohio 43068-9009  
Phone: 614-644-2239  
Fax: 614-728-8639  
[www.com.ohio.gov](http://www.com.ohio.gov)  
TTY/TDD: 1-800-750-0750

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OHIO DEPARTMENT OF COMMERCE  
 Division of Industrial Compliance  
 Bureau of Wage and Hour Administration  
 Chief, Stephen Clegg

6606 Tussing Road, PO Box 4009  
 Reynoldsburg, Ohio 43068-9009  
 614-644-2239  
 fax: 614-728-8639  
<http://www.com.ohio.gov>

## INVESTIGATORS and THEIR HEADQUARTER COUNTY

<p><b>#48 Dave Horvath</b>          PO Box 1512          Lima, Ohio 45802-1512          Voice: (419) 302-1200          Fax: (614) 728-8639  <a href="mailto:Dave.Horvath@com.state.oh.us">Dave.Horvath@com.state.oh.us</a></p>	<p>Allen *</p>
<p><b>#30 Mike McKee</b>          P.O. Box 1342          Cambridge, Ohio 43725-2247          Voice/Fax: (740) 432-1987  <a href="mailto:Michael.McKee@com.state.oh.us">Michael.McKee@com.state.oh.us</a></p>	<p>Guernsey*</p>
<p><b>#56 Shawn Miles</b>          P.O. Box 2547          North Canton, Ohio 44720          Voice/Fax: (614) 496-9076  <a href="mailto:Shawn.Miles@com.state.oh.us">Shawn.Miles@com.state.oh.us</a></p>	<p>Stark *</p>
<p><b>#37 David Rice</b>          P.O. Box 41241          Dayton, Ohio 45441          Voice: (740) 502-0883          Fax: (614) 995-7768  <a href="mailto:Dave.Rice@com.state.oh.us">Dave.Rice@com.state.oh.us</a></p>	<p>Montgomery *</p>
<p><b>#35 Sean Seibert</b>          P.O. Box 422          Painesville, Ohio 44077-3938          Voice: (614) 557-8662          Fax: (614) 232-9541  <a href="mailto:Sean.Seibert@com.state.oh.us">Sean.Seibert@com.state.oh.us</a></p>	<p>Lake *</p>
<p><b>#11 Kela D. Thompson</b>          6606 Tussing Rd, PO Box 4009          Reynoldsburg, Ohio 43068-9009          Voice: (614) 728-5007          Fax: (614) 232-9537  <a href="mailto:Kela.Thompson@com.state.oh.us">Kela.Thompson@com.state.oh.us</a></p>	<p>Franklin *</p>

**\* Headquarter County**

<p><b>Stephen Clegg, Chief</b>          6606 Tussing Road, PO Box 4009          Reynoldsburg, Ohio 43068-9009          Voice: (614) 728-8686          Fax: (614) 728-8639  <a href="mailto:Stephen.Clegg@com.state.oh.us">Stephen.Clegg@com.state.oh.us</a></p>	<p><b>#90 Jackie Clark, Supervisor</b>          6606 Tussing Rd, PO Box 4009          Reynoldsburg, Ohio 43068-9009          Voice: (614) 728-5019          Fax: (614) 222-2357  <a href="mailto:Jackie.Clark@com.state.oh.us">Jackie.Clark@com.state.oh.us</a></p>
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**Mike DeWine**  
Governor

**Sheryl Maxfield**  
Director

# **PREVAILING WAGE GUIDE FOR PUBLIC AUTHORITIES**

## **OHIO DEPARTMENT OF COMMERCE**

Division of Industrial Compliance  
Bureau of Wage and Hour Administration  
6606 Tussing Road, PO Box 4009  
Reynoldsburg, Ohio 43068-9009  
Phone: 614-644-2239  
Fax: 614-728-8639  
[www.com.ohio.gov](http://www.com.ohio.gov)  
TTY/TDD: 1-800-750-0750

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# PREVAILING WAGE THRESHOLD LEVELS

## IMPORTANT NOTICE

Before advertising for bids, contracting, or undertaking construction with its own forces, to construct a public improvement, the Public Authority shall have the Ohio Department of Commerce-Division of Industrial Compliance, Bureau of Wage and Hour Administration determine the prevailing rates of wages for workers employed on the public improvement. The wage determination must be included in the project specifications and printed on the bidding blanks where work is done by contract.

<b>“New” construction threshold for <i>Building Construction</i>:</b>	<b>\$250,000</b>
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<b>“Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting” threshold level for <i>Building Construction</i>:</b>	<b>\$75,000</b>
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<b>As of January 1, 2018:</b>
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<b>“New” construction that involves <i>roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction</i> threshold level has been adjusted to:</b>	<b>\$91,150</b>
---	-----------------

<b>“Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting” that involves <i>roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction</i> threshold level has been adjusted to:</b>	<b>\$27,309</b>
---	-----------------

- A) Thresholds are to be adjusted biennially by the Director of the Ohio Department of Commerce.
- B) Biennial adjustments to threshold levels are made according to the Building Cost for Skilled Labor Index published by McGraw-Hill’s Engineering News-Record, but may not increase or decrease more than 3% for any year.

If there are questions concerning this notification, please contact:

Ohio Department of Commerce  
Division of Industrial Compliance  
Bureau of Wage and Hour Administration  
6606 Tussing Road, PO Box 4009  
Reynoldsburg, Ohio 43068-9009  
Phone: 614-644-2239  
Fax: 614-728-8639  
[www.com.ohio.gov](http://www.com.ohio.gov)

**Public Authority Responsibilities**  
**ORC Chapter 4115: Wages and Hours on Public Works**  
**(Prevailing Wage Coordinator)**

1. Before advertising for bids, contracting, or undertaking construction with its own forces, to construct a public improvement, the public authority shall have the Ohio Department of Commerce, Division of Industrial Compliance, Bureau of Wage and Hour Administration determine the prevailing rates of wages for workers employed on the public improvement. The wage determination must be included in the project specifications and printed on the bidding blanks where work is done by contract.
  - a) "New" construction has a threshold level of **\$250,000.**
  - b) "Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting" has a threshold level of **\$75,000.**
  - c) "New" construction that involves roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction has a threshold level of **\$84,314.**
  - d) "Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting" that involves roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction has a threshold of **\$25,261.**
    - i.) Thresholds are to be adjusted biennially by the Director of Ohio Department of Commerce, Division of Industrial Compliance, Bureau of Wage and Hour Administration.
    - ii.) Biennial adjustments to threshold levels are made according to the Price Deflator for Construction Index, United States Department of Commerce, Bureau of the Census, but may not increase or decrease more than 3% for any year.
2. Every contract for public work shall contain a provision that each worker employed by the contractor or subcontractor, or other person about or upon the public work, must be paid the prevailing rate of wages.
3. If contracts are not awarded or construction undertaken within ninety days (90) from the date of the determination of the prevailing wage there shall be a re-determination of the wage rates before the contract is awarded.
4. Within **seven (7) working days** after the receipt of notification of a change in the prevailing wage rates, the public authority shall notify all affected contractors and subcontractors. If it is determined that a contractor or subcontractor has violated sections 4115.03 to 4115.16 of the Ohio Revised Code because they were not notified as required, **the public authority is liable** for any back wages, fines, damages, court costs and attorney's fees for the period of time covering the receipt of wage changes, until they give the required notice.
5. No public authority shall award a contract for a public improvement to any contractor or subcontractor whose name appears on the list of debarred contractors. This list is filed with the Secretary of State by the Ohio Department of Commerce-Division of Industrial Compliance & Labor-Bureau of Wage and Hour Administration **The filing of the notice of conviction with the secretary of state constitutes notice to all public authorities.** These contractors are prohibited from working on public improvements for periods ranging from one to three years. The list of debarred contractors can be located on the website [www.com.ohio.gov/laws](http://www.com.ohio.gov/laws)
6. A public authority must designate and appoint **one of its own employees** to serve as the Prevailing Wage Coordinator during the life of the contract for constructing the public improvement. A Prevailing Wage Coordinator must be appointed no later than ten days before the first payment of wages by contractors to employees working on the public improvement.

## PUBLIC AUTHORITY'S COMPLIANCE CHECKLIST FOR PREVAILING WAGE

Project:		Number:
Department:		Phone#:
PW Coordinator:		Phone#:
Architect/Engineer:		Phone#:
Contractor:		Phone#:
Contact Person:		Title:
General Contractor:		Prime Contractor:
		Construction Mgr:
Date Completed		Compliance Item Description
	1.	Request Prevailing Wage Determination Schedule from ODOC-DIC-Wage & Hour
	2.	Received Prevailing Wage Determination Schedule
	3.	Incorporate Determination Schedule in Specs./Bidding Blanks
	4.	Incorporate notice of Prevailing Wage requirements in Invitation for Bids/Notice to Bidders
	5.	Incorporate Prevailing Wage requirements in Contract
	6.	Submit complete Invitation for Bid to ODOC-DIC-Wage & Hour
	7.	Invitation for Bids
	8.	Bid Opening
	9.	Check Listing of Violators
	10.	Award of Contract. (see note)
	11.	Submit Bid Tabulation/Award to ODOC-DIC-WAGE & HOUR
	12.	Notice to Successful Bidder
	13.	Work Commenced...(see note)
	14.	Appoint Prevailing Wage Coordinator
	15.	Received list of Subcontractors' names, addresses, phone #'s & email's
	16.	Received Payroll Date Schedule
	17.	Received Registered Apprenticeship Agreement Certifications
	18.	Received Deduction Agreements
	19.	Received Payroll Reports with Certification...(see attachment)
	20.	Visited project site
	21.	Received Changes to Determination Schedule
	22.	Notice to Contractors of Determination Schedule change
	23.	Request Final Compliance Affidavit from contractors & subcontractors
	24.	Received Final Affidavits from all contractors & subcontractors
	25.	Certify Final Payment

**Note:** If contract is not awarded or construction undertaken within 90 days from the date of establishment of the Prevailing Wage Rates, a re-determination of the Prevailing Wage Rates is required.

## REQUEST FOR STATE OF OHIO PREVAILING WAGE RATES

Date		(Mark (X) One) <input type="checkbox"/> ~ Residential <input type="checkbox"/> ~ Construction
Project Information (only one project and one county per request form please)		
County of Project	Project Name	This form MUST be filled out COMPETELY & CORRECTLY for us to process your request. Forms not completed correctly will be RETURNED TO THE SENDER.
Site Address	City	
Owner/Public Authority		Prevailing Wage Rates can be obtained on the website <a href="http://www.com.ohio.gov">www.com.ohio.gov</a>
Address	Telephone Number	<b>ODOC-DIC-WAGE &amp; HOUR DATE STAMP</b>
City	Zip Code	
PW Coordinator	Telephone Number	
Issuing Authority of Bonds	Type of Financing	
Estimated Total Overall Project Cost		PLEASE MAIL THIS REQUEST TO: Ohio Department of Commerce Division of Industrial Compliance Bureau of Wage & Hour Administration 6606 Tussing Road, PO Box 4009 Reynoldsburg, Ohio 43068-9009  PHONE: (614) 644-2239 FAX: (614) 728-8639
<input type="checkbox"/> New Construction <input type="checkbox"/> "Old" Construction *  A copy of this form will be returned to you with your wage rates. You must send that copy to us with your bid tabulations once the contract has been awarded.		
Expected Date of Contract Award		
Projected Completion Date		<b>ODOC-DIC-W&amp;H DATE STAMP (bid tab)</b>
Send Wage Rates to: (contractors are charged \$5.00 per county)		
<input type="checkbox"/> Mail <input type="checkbox"/> Pick Up <input type="checkbox"/> Federal Express Account Number		
Name	Company or Public Authority	
Address		
City	Zip	
Telephone Number		
* "Old" construction is reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting.		

# BID TABULATION SHEET

Please attach a copy of your original dated and stamped **“Request for Prevailing Wage Rates”** with this **Bid Tabulation**. Please check mark which company was awarded the contract for the project.  
**(Note: DO NOT SEND UNTIL THE CONTRACT HAS BEEN OFFICIALLY AWARDED.)**

Ohio Department of Commerce  
 Division of Industrial Compliance, Bureau of Wage & Hour  
 6606 Tussing Road, PO Box 4009  
 Reynoldsburg, Ohio 43068-9009  
 (Phone) 614-644-2239, (Fax) 614-728-8639 [www.com.ohio.gov](http://www.com.ohio.gov)

**Contracting Public Authority:** \_\_\_\_\_

**Project Name:** \_\_\_\_\_

<b>Project #:</b> _____	<b>Bid Date:</b> _____	<b>Estimate:</b> _____
-------------------------	------------------------	------------------------

**Contract Description:**  General  HVAC  Electrical  Plumbing  Asbestos  Other: \_\_\_\_\_

AWARDED TO (CHECK)	LIST OF THE BIDDING CONTRACTORS	TOTAL BID AMOUNT
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
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<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

SUBMITTED BY	
<b>Print Name:</b> _____	<b>Title:</b> _____
<b>Telephone Number:</b> (      ) _____	<b>FAX #:</b> _____
	<b>EMAIL:</b> _____
<b>Signature:</b> _____	<b>Date:</b> _____

## INDUSTRIAL DEVELOPMENT BONDS

<b>Bond Projects require the Public Authority to keep the following information on file</b>			
1. Type of Bonds issued:		Amount:	
2. The total cost of the Project:			
3. The other type of financing involved in the project:			
4. Portion of the project being constructed with each type of financing:			
5. Are Prevailing Wage Rates being applied to all construction on the project: <input type="checkbox"/> Yes <input type="checkbox"/> No			
6. The name of the political subdivision who issued the bonds:			
7. When were the bonds issued:			
8. For what purpose were the bonds issued:			
9. Who handles the funds once the bonds are sold:			
10. Who is the lending institution that purchased the bonds:			
11. How are the funds to be paid out:			
12. When are the funds to be paid out:			
13. Who is the Bond Council:			
14. Who has been appointed as the Prevailing Coordinator:			
PWC Address:			
City:	OHIO	Zip:	Telephone #:
15. Obtain a copy of the inducement and other official documents for the issuance of the bonds.			





**Mike DeWine**  
Governor

**Sheryl Maxfield**  
Director

# **PREVAILING WAGE GUIDELINES**

## **FOR THE**

### **PUBLIC AUTHORITY'S**

### **PW COORDINATOR**

**OHIO DEPARTMENT OF COMMERCE**

Division of Industrial Compliance and Labor

Bureau of Wage and Hour Administration

6606 Tussing Road, PO Box 4009

Reynoldsburg, Ohio 43068-9009

Phone: 614-644-2239

Fax: 614-728-8639

[www.com.ohio.gov](http://www.com.ohio.gov)

TTY/TDD: 1-800-750-0750

The Ohio Department of Commerce is an Equal Opportunity Employer and Service Provider

## Prevailing Wage Coordinator Guidelines

For more detailed information please refer to Chapter 4115 of the Ohio Revised Code

- A. Attend any pre-bid and/or pre-construction meetings.
  - 1. To explain the prevailing wage rate requirements.
  - 2. To explain the contractor's responsibilities.
- B. Set up and maintain files containing all contractors' and subcontractors' payroll reports, affidavits, and related documents. These files must be available for public inspection.
- C. Obtain from each contractor a list of their subcontractors' names, addresses, telephone numbers, and email addresses.
- D. Require each contractor and subcontractor to provide their project dates. This will be used to make a time schedule for receiving their certified payrolls.
- E. Obtain from each contractor, the name and address of their Bonding\Surety Company.
- F. Obtain from out-of-state corporations, the name and address of their Statutory Agent. (This agent must be located in the State of Ohio and registered with the Ohio Secretary of State.)
  - 1. Records made in connection with the public improvement must not be removed from the State of Ohio for the period of one year following the completion of the project.
- G. Supply contractors with any changes in the Prevailing Wage Rates.
- H. Within two weeks after the first pay, obtain a certified payroll report from each contractor. A certified report is one that is sworn to and signed by the contractor.
  - 1. If the job will exceed four months, all reports after the initial report can be filed once per month. (The initial report must be filed within two weeks.)
  - 2. If the job will last less than four months, all reports are to be filed weekly after the initial report.
- I. Establish and follow procedures to monitor compliance by contractors and subcontractors.
  - 1. Visit project to verify posting requirements and job classifications.
  - 2. Review certified payroll reports to ensure they are submitted in a timely fashion and complete with the following information for each employee:
    - a) Name, current address, and their social security number or last 4 when permitted
    - b) Classification (must be specific for laborers and operators, including level)
    - c) Hours worked on the project
    - d) Hourly rate
    - e) Fringe benefits, if applicable
    - f) Total hours worked for the week (all jobs)
    - g) Gross wages, all deductions, net pay
  - 3. Compare rates and fringes reported to rates in prevailing wage schedule.
- J. Upon completion of the project and prior to the final payment, require an affidavit of compliance from each contractor and subcontractor. **No public authority shall make final payment to any contractor or subcontractor unless the final affidavits have been filed by the respective contractor and subcontractor. (O.R.C. section 4115.07)**
- K. Report any non-compliance to Ohio Department of Commerce, Division of Industrial Compliance, Bureau of Wage & Hour Administration. The PW complaint form and instructions can be obtained on the website [www.com.ohio.gov](http://www.com.ohio.gov).

## RECORD OF THE CERTIFIED PAYROLL REPORTS RECEIVED

<b>Project:</b>		<b>Number:</b>
<b>Contractor:</b>		<b>Phone #:</b> <b>Email:</b>
<b>General Contractor:</b>	<b>Prime Contractor:</b>	<b>Subcontractor:</b>
<b>Date work commenced:</b>	<b>Completed:</b>	<b>Final Affidavit:</b>

Payroll	Payroll Date	Date Received		Payroll	Payroll Date	Date Received
1				33		
2				34		
3				35		
4				36		
5				37		
6				38		
7				39		
8				40		
9				41		
10				42		
11				43		
12				44		
13				45		
14				46		
15				47		
16				48		
17				49		
18				50		
19				51		
20				52		
21				53		
22				54		
23				55		
24				56		
25				57		
26				58		
27				59		
28				60		
29				61		
30				62		
31				63		
32				64		

## PREVAILING WAGE INVESTIGATION\EMPLOYEE INTERVIEW

Failure to complete this interview form may reduce our ability to recover back wages which may be owed to you.

Project:		Case #:	
Address:		City:	County:
Employee Name:			Last 4 digits of the SS#:
Address:	City:	State:	Zip:
Telephone #: (Home)	(Work)	Email:	Best time to be reached:
Another source by which we can contact you. (Someone not living at your address):			
Name:		Relationship:	Telephone #:
Contractor's Name:		Telephone #:	
Address:		City:	State: Zip:
Date hired:	Date started on this project :	Approximate hours - Straight time:	Overtime:
Method of recording hours: <input type="checkbox"/> Time Card <input type="checkbox"/> Called into office		Recorded by: <input type="checkbox"/> Employee <input type="checkbox"/> Foreman	
Did you keep a personal record of your hours worked on this project? <input type="checkbox"/> Yes <input type="checkbox"/> No		Do you have check stubs? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Did anyone else keep a personal record ? <input type="checkbox"/> Yes <input type="checkbox"/> No		If yes, who:	
List your job classification(s):		<input type="checkbox"/> Journeyman <input type="checkbox"/> Helper <input type="checkbox"/> Apprentice - Level	
List your specific job duties:		List tools\equipment used:	
Hourly rate of pay for this project:		Your regular rate of pay:	
Fringe benefits paid by contractor: <input type="checkbox"/> None <input type="checkbox"/> Health Insurance <input type="checkbox"/> Life Insurance <input type="checkbox"/> Pension <input type="checkbox"/> Bonus ~ Vacation - Amount _____ <input type="checkbox"/> Holidays - Amount _____ <input type="checkbox"/> Apprenticeship training <input type="checkbox"/> Profit Sharing ~ Other (list):			
Did you work overtime? <input type="checkbox"/> Yes <input type="checkbox"/> No		Were hours over 40 per week paid at time and one half? <input type="checkbox"/> Yes <input type="checkbox"/> No	
When is your pay day?		Method of payment: <input type="checkbox"/> Check <input type="checkbox"/> Cash <input type="checkbox"/> Direct Deposit	
List names of co-workers on this project:			
Comments:		Please provide a detailed list of the dates, times and hours worked within each classification that may apply to the work performed on a separate sheet.	
<b>SIGNATURE AND NOTARY</b>			
Affiant is further informed that Section 2921.13 of the Ohio Revised Code provides a penalty of a misdemeanor of the first degree and that prosecution will be pursued of those persons who "knowingly swear or affirm the truth of a false statement when ...the statement is sworn or affirmed before a notary public..." Sworn to before me and subscribed by the said:		I hereby certify that this is a true statement to the best of my knowledge and belief.	
_____		Signature _____ Date _____	
in my presence this _____ day of _____, 20_____.		Return to: Ohio Department of Commerce Division of Industrial Compliance & Labor Bureau of Wage and Hour Administration 6606 Tussing Road P.O. Box 4009 Reynoldsburg, Ohio 43068-9009 (614) 644-2239 <a href="http://www.com.ohio.gov">www.com.ohio.gov</a>	
_____ Notary Public			
Signature of PW Coordinator:			Date:

# EMPLOYEE VS. INDEPENDENT CONTRACTOR

EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Does the employer have the right to control and direct worker?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Does the worker receive instructions about how and where the work is to be done instead of the employer merely specifying the desired result?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Is payment based on time spent rather than a set price for the work to be performed?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Does the worker devote virtually all his working time to the employer rather than offering services to the general public?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Does the worker performing services make their services available to the general public and/or other businesses?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Is there a continuing relationship between employer and worker?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Can the worker be discharged at will?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Did the employer train the worker for the job?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR
EMPLOYEE	↔	<input checked="" type="checkbox"/> YES	Does the employer have employees performing the same work as the independent contractor?	<input type="checkbox"/> NO	↔	INDEPENDENT CONTRACTOR

# EMPLOYEE VS. INDEPENDENT CONTRACTOR-continued

EMPLOYEE ↔  YES  NO ↔ INDEPENDENT CONTRACTOR

Does the worker perform services personally rather than delegating them to others?

EMPLOYEE ↔  YES  NO ↔ INDEPENDENT CONTRACTOR

Does the employer set a specific time when the individual services are to be performed?

EMPLOYEE ↔  YES  NO ↔ INDEPENDENT CONTRACTOR

Does the employer furnish the tools and materials used by the worker performing services?

EMPLOYEE ↔  YES  NO ↔ INDEPENDENT CONTRACTOR

Is the employer assuming all the financial risk, rather than the worker making a significant financial investment in the job and having the opportunity to realize a profit or loss from the work?

EMPLOYEE ↔  NO  YES ↔ INDEPENDENT CONTRACTOR

Does the individual performing the services publicly advertise these services in for example, the newspaper or yellow pages ?

EMPLOYEE ↔  NO  YES ↔ INDEPENDENT CONTRACTOR

Does the individual performing the services have a business license?

EMPLOYEE ↔  NO  YES ↔ INDEPENDENT CONTRACTOR

Does the individual performing the services operate d.b.a. or under a tradename?



**Mike DeWine**  
Governor

**Sheryl Maxfield**  
Director

# **PREVAILING WAGE GUIDE FOR CONTRACTORS**

## **OHIO DEPARTMENT OF COMMERCE**

Division of Industrial Compliance  
Bureau of Wage and Hour Administration  
6606 Tussing Road, PO Box 4009  
Reynoldsburg, Ohio 43068-9009  
Phone: 614-644-2239  
Fax: 614-728-8639  
[www.com.ohio.gov](http://www.com.ohio.gov)  
TTY/TDD: 1-800-750-0750

The Ohio Department of Commerce is an Equal Opportunity Employer and Service Provider

OHIO DEPARTMENT OF COMMERCE  
 Division of Industrial Compliance  
 Bureau of Wage and Hour Administration  
 Chief, Stephen Clegg

6606 Tussing Road, PO Box 4009  
 Reynoldsburg, Ohio 43068-9009  
 614-644-2239  
 fax: 614-728-8639  
<http://www.com.ohio.gov>

## INVESTIGATORS and THEIR HEADQUARTER COUNTY

<p><b>#48 Dave Horvath</b>          PO Box 1512          Lima, Ohio 45802-1512          Voice: (419) 302-1200          Fax: (614) 728-8639  <a href="mailto:Dave.Horvath@com.state.oh.us">Dave.Horvath@com.state.oh.us</a></p>	<p>Allen *</p>
<p><b>#30 Mike McKee</b>          P.O. Box 1342          Cambridge, Ohio 43725-2247          Voice/Fax: (740) 432-1987  <a href="mailto:Michael.McKee@com.state.oh.us">Michael.McKee@com.state.oh.us</a></p>	<p>Guernsey*</p>
<p><b>#56 Shawn Miles</b>          P.O. Box 2547          North Canton, Ohio 44720          Voice/Fax: (614) 496-9076  <a href="mailto:Shawn.Miles@com.state.oh.us">Shawn.Miles@com.state.oh.us</a></p>	<p>Stark *</p>
<p><b>#37 David Rice</b>          P.O. Box 41241          Dayton, Ohio 45441          Voice/Fax: (740) 502-0883  <a href="mailto:Dave.Rice@com.state.oh.us">Dave.Rice@com.state.oh.us</a></p>	<p>Montgomery *</p>
<p><b>#35 Sean Seibert</b>          P.O. Box 422          Painesville, Ohio 44077-3938          Voice: (614) 557-8662          Fax: (614) 232-9541  <a href="mailto:Sean.Seibert@com.state.oh.us">Sean.Seibert@com.state.oh.us</a></p>	<p>Lake *</p>
<p><b>#11 Kela D. Thompson</b>          6606 Tussing Rd, PO Box 4009          Reynoldsburg, Ohio 43068-9009          Voice: (614) 728-5007          Fax: (614) 232-9537  <a href="mailto:kela.thompson@com.state.oh.us">kela.thompson@com.state.oh.us</a></p>	<p>Franklin *</p>

**\* Headquarter County**

<p><b>Stephen Clegg, Chief</b>          6606 Tussing Road, PO Box 4009          Reynoldsburg, Ohio 43068-9009          Voice: (614) 728-8686          Fax: (614) 728-8639  <a href="mailto:Stephen.Clegg@com.state.oh.us">Stephen.Clegg@com.state.oh.us</a></p>	<p><b>#90 Jackie Clark, Supervisor</b>          6606 Tussing Rd, PO Box 4009          Reynoldsburg, Ohio 43068-9009          Voice: (614) 728-5019          Fax: (614) 222-2357  <a href="mailto:Jackie.Clark@com.state.oh.us">Jackie.Clark@com.state.oh.us</a></p>
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## PREVAILING WAGE CONTRACTOR RESPONSIBILITIES

**This is a summary of prevailing wage contractors' responsibilities. For more detailed information please refer to Chapter 4115 of the Ohio Revised Code**

### General Information

Ohio's prevailing wage laws apply to all public improvements financed in whole or in part by public funds when the total overall project cost is fairly estimated to be more than \$250,000 for new construction or \$75,000 for reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting.

Ohio's prevailing wage laws apply to all public improvements financed in whole or in part by public funds when the total overall project cost is fairly estimated to be more than \$91,150 for new construction that involves roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction or \$27,309 for reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting of a public improvement that involves roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction.

- a) Thresholds are to be adjusted biennially by the Administrator of Ohio Department of Commerce, Division of Industrial Compliance and Labor, Bureau of Wage and Hour Administration
- b) Biennial adjustments to threshold levels are made according to the Price Deflator for Construction Index, United States Department of Commerce, Bureau of the Census\*, but may not increase or decrease more than 3% for any year

### Penalties for violation

Violators are to be assessed the wages owed, plus a penalty of 100% of the wages owed.

### Intentional Violations

If an intentional violation is determined to have occurred, the contractor is prohibited from contracting directly or indirectly with any public authority for the construction of a public improvement. Intentional violation means "a willful, knowing, or deliberate disregard for any provision" of the prevailing wage law and includes but is not limited to the following actions:

- Intentional failure to submit payroll reports as required, or knowingly submitting false or erroneous reports.
- Intentional misclassification of employees for the purpose of reducing wages.
- Intentional misclassification of employees as independent contractors or as apprentices.
- Intentional failure to pay the prevailing wage.
- Intentional failure to comply with the allowable ratio of apprentices to skilled workers as required by the regulations established by Ohio Department of Commerce, Division of Industrial Compliance and Labor, Bureau of Wage and Hour Administration.
- Intentionally employing an officer, of a contractor or subcontractor, that is known to be prohibited from contracting, directly or indirectly, with a public authority.



### Responsibilities

- A. Pay the prevailing rate of wages as shown in the wage rate schedules issued by the Ohio Department of Commerce, Division of Industrial Compliance and Labor, Bureau of Wage and Hour Administration, for the classification of work being performed.
  1. Wage rate schedules include all modifications, corrections, escalations, or reductions to wage rates issued for the project.
  2. Overtime must be paid at time and one-half the employee's base hourly rate. Fringe benefits are paid at straight time rate for all hours including overtime.
  3. Prevailing wages must be paid in full without any deduction for food, lodging, transportation, use of tools, etc.; unless, the employee has voluntarily consented to these deductions in writing. The public authority and the Director of Ohio Department of Commerce, Division of Industrial Compliance and Labor, Bureau of Wage and Hour Administration - must approve these deductions as fair and reasonable. Consent and approval must be obtained before starting the project.
  
- B. Use of Apprentices and Helpers cannot exceed the ratios permitted in the wage rate schedules.
  1. Apprentices must be registered with the U.S. Department of Labor Bureau of Apprenticeship and Training.
  2. Contractors must provide the Prevailing Wage Coordinator a copy of the Apprenticeship Agreement for each apprentice on the project.
  
- C. Keep full and accurate payroll records available for inspection by any authorized representative of the Ohio Department of Commerce, Division of Industrial Compliance, and Labor, Bureau of Wage and Hour Administration or the contracting public authority, including the Prevailing Wage Coordinator. Records should include but are not limited to:
  1. Time cards, time sheets, daily work records, etc.
  2. Payroll ledger/journals and canceled checks/check register.
  3. Fringe benefit records must include program, address, account number, & canceled checks.
  4. Records made in connection with the public improvement must not be removed from the State for one year following the completion of the project.
  5. Out-of-State Corporations must submit to the Ohio Secretary of State the full name and address of their Statutory Agent in Ohio.
  
- D. Prevailing Wage Rate Schedule must be posted on the job site where it is accessible to all employees.
  
- E. Prior to submitting the initial payroll report, supply the Prevailing Wage Coordinator with your project dates to schedule reporting of your payrolls.
  
- F. Supply the Prevailing Wage Coordinator a list of all subcontractors including the name, address, and telephone number for each.
  1. **Contractors are responsible for their subcontractors' compliance with requirements of Chapter 4115 of the Ohio Revised Code.**



- G. Before employees start work on the project, supply them with written notification of their job classification, prevailing wage rate, fringe benefit amounts, and the name of the Prevailing Wage Coordinator for the project. A copy of the completed signed notification should be submitted to Prevailing Wage Coordinator.
- H. Supply all subcontractors with the Prevailing Wage Rates and changes.
- I. Submit certified payrolls within two (2) weeks after the initial pay period. Payrolls must include the following information:
  - 1. Employees' names, addresses, and social security numbers.
    - a. Corporate officers/owners/partners and any salaried personnel who do physical work on the project are considered employees. All rate and reporting requirements are applicable to these individuals.
  - 2. Employees' work classification.
    - a. Be specific about the laborers and/or operators (Group)
    - b. For all apprentices, show level/year and percent of journeyman's rate
  - 3. Hours worked on the project for each employee.
    - a. The number of hours worked in each day and the total number of hours worked each week.
  - 4. Hourly rate for each employee.
    - a. The minimum rate paid must be the wage rate for the appropriate classification. The Department's Wage Rate Schedule sets this rate.
    - b. All overtime worked is to be paid at time and one-half for all hours worked more than forty (40) per week.
  - 5. Where fringes are paid into a bona fide plan instead of cash, list each benefit and amount per hour paid to program for each employee.
    - a. When the amount contributed to the fringe benefit plan and the total number of hours worked by the employee on all projects for the year are documented, the hourly amount is calculated by dividing the total contribution of the employer by the total number of hours worked by the employee.
    - b. When the amount contributed to the fringe benefit is documented but not the total hours worked, the hourly amount is calculated by **dividing the total yearly contribution by 2080**.
  - 6. Gross amount earned on all projects during the pay period.
  - 7. Total deductions from employee's wages.
  - 8. Net amount paid.
- J. The reports shall be certified by the contractor, subcontractor, or duly appointed agent stating that the payroll is correct and complete; and that the wage rates shown are not less than those required by the O.R.C. 4115.
- K. Provide a Final Affidavit to the Prevailing Wage Coordinator upon the completion of the project.

## PREVAILING WAGE NOTIFICATION to EMPLOYEE

4115.05...the contractor or subcontractor shall furnish each employee NOT covered by a collective bargaining agreement written notification of the job classification to which the employee is assigned, the prevailing wage determined to be applicable to that classification, separated into the hourly rate of pay and the fringe payments, and the identity of the prevailing wage coordinator appointed by the public authority. The contractor or subcontractor shall furnish the same notification to each affected employee every time the job classification of the employee is changed.

Project Name:	Job Number:
Contractor:	
Project Location:	
Prevailing Wage Coordinator	Employee
Public Authority:	Name:
Name of PWC:	Street:
Street:	City:
City:	State/Zip:
State/Zip:	Phone:
	Email:
Phone:	Last 4 Digits of SS #:

You will be performing work on this project that falls under these classifications. You will be paid the appropriate rate for the type of work you are performing.

Classification:	Prevailing Wage Rate Total Package:	Minus your fringe benefits *:	Your hourly base rate and overtime:
			/
			/
			/
			/
			/
			/

Hourly fringe benefits paid on your behalf by this company (Yearly amount the company pays divided by 2080):

Fringe	Amount	Fringe	Amount
Health Insurance		Vacation	
Life Insurance		Holiday	
Pension		Sick Pay	
Other (Specify)		Training	
Other (Specify)		<b>Total Hourly Fringes *</b>	

Contractor's Signature:	Date:
Employee's Signature:	Date:

# INSTRUCTIONS FOR PREPARING CERTIFIED PAYROLL REPORTS

## General

Contractors and subcontractors are required by law to submit certified payroll reports for work on projects covered by Ohio's Prevailing Wage Law. This form meets the reporting requirements established by Ohio Revised Code Chapter 4115. The use of this form is not mandatory; employers may submit their own forms provided that all of the required information is included. This form may be reproduced, or additional copies obtained from:

Ohio Department of Commerce  
Division of Industrial Compliance and Labor  
Bureau of Wage & Hour Administration  
6606 Tussing Rd, P. O. Box 4009  
Reynoldsburg, OH 43068-9009  
Phone: (614) 644-2239  
[www.com.ohio.gov](http://www.com.ohio.gov)

## Certified Payroll Heading

**Employer name and address:** Company's full name and address... Indicate if the company is a subcontractor.

**Subcontractor:** Check and list the name of the General Contractor or Prime.

**Project:** Name and location of the project, including county.

**Contracting Public Authority:** Name and address of the contracting public authority... (Owner of the project).

**Week Ending:** Month, day, and year for the last day of the reporting period.

**Payroll #:** Indicate first, second, third, etc. payroll filed by the company for the project.

**Page Indicator:** number of pages included in the report.

**Project Number:** Determined by the public authority... if there is no number leave it blank.

## Payroll Information by Column

- Employee Name, Address and Social Security number:** This information must be provided for all employees that perform physical labor on the project. Corporate officers, partners, and salaried employees are considered employees and must be paid the prevailing rate. Individual sole proprietors do not have to pay themselves prevailing rate but must report their hours on the project.
- Work Class:** List classification of work actually performed by employee. If unsure of work classification, consult the Ohio department of Commerce, Wage and Hour Bureau. Employees working more than one classification should have separate line entries for each classification. Indicate what year/level for Apprentices. Be specific when using laborer and operator classifications; for example, Backhoe Operator or Asphalt Laborer.
- Hours Worked, Day & Date:** In the first row of column 3 enter days of pay period example; M T W T H F S S. The second row is for the date that corresponds with each day for the pay period. In the employee information section enter the number of hours worked on the prevailing wage project and which day the hours were worked. Separate rows are labeled for (ST) straight time hours and (OT) overtime hours. All hours worked after 40, must be paid at the appropriate overtime rate.
- Project Total Hours:** Total the hours entered for pay period.
- Base Rate:** Enter actual rate per hour paid to the employee. The overtime hourly rate is time and one-half the base rate listed in the prevailing wage schedule plus fringe benefits at straight time rate. The prevailing wage schedule lists the base rate plus fringe benefit amounts. These amounts added together equal the total prevailing wage rate. Employers must pay this total amount in one of three ways.
  - Total rate may be paid in entirety in the base rate to the employee; in which case, the cash designation will be checked for fringe benefits.
  - Total rate may be paid as listed in prevailing wage rate schedule with total fringe amounts paid approved plans.
  - Total rate may be paid with a combination of base rate and fringe payments to approved plans in amounts other than those listed in schedule.
- Project Gross:** Enter total gross wages earned on the project for straight time and overtime. Project hours X base rate should equal project gross.
- Fringes:** If fringe benefits are paid in the hourly base rate, indicate this by marking the **Cash** space. If fringe benefits are paid to approved plans as listed in the prevailing wage rate schedule, mark the space **Approved Plans**. If fringe benefits are paid partially in the base rate and partially to approved plans, mark the space **Cash & Approved plans**. List the hourly amount paid to approved plans for each fringe. If payments are not made on a per hour basis, **calculate the hourly fringe credit by dividing the yearly employer contribution by** the lesser of: hours actually worked in the year (these must be documented) or **2080**. Fringe benefits include: **Employer's share** of health insurance, life insurance, retirement plan, bonus/profit sharing, sick pay, holiday pay, personal leave, vacation, and education/training programs. If unsure of a possible fringe benefit, contact the Ohio Department of Commerce - Division of Industrial Compliance and Labor - Bureau of Wage & Hour Administration.
- Total Hours All Jobs:** Total all hours worked during the pay period including non-prevailing wage jobs.
- Total Gross All Jobs:** Gross amount earned in the pay period for all hours worked.
- Self explanatory.
- Self explanatory.

# Certified Payroll Report

**Report for:**  Check if Subcontractor<sup>1)</sup> Contract No: \_\_\_\_\_ Payroll No: \_\_\_\_\_  
 Company:<sup>1)</sup> \_\_\_\_\_ If Sub, GC/Prime Contractor Name: \_\_\_\_\_ Project Name & Location: \_\_\_\_\_  
 Address: \_\_\_\_\_ Public Authority (Owner): \_\_\_\_\_ Week Ending: \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_ Sheet:<sup>2)</sup> \_\_\_\_\_ of \_\_\_\_\_  
 Phone No: \_\_\_\_\_

1. Employee Name, Address, & SS# (Last 4 digits if permitted)	2. Work Class <sup>3)</sup>	3. Prevailing Wage Project			4. Total Hours	5. Base Rate	6. Project Gross	7. Fringes:					8. Total Hrs for all Jobs	9. Total Gross on All Jobs			10. Total Deductions	11. Net Pay on All Jobs
		Hours Worked - Day & Date						Fringe Rate Your Company Pays Per Hour						Total	Deductions	Net		
								H&W	Pens	Vac	Hol	Other						
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1) By signing below, I certify that: (1) I pay, or supervise the payment of the employees shown above; (2) during the pay period reported on this form, all hours worked on this project have been paid at the appropriate prevailing wage rate for the class of work done; (3) the fringe benefits have been paid as indicated above; (4) no rebates or deductions have been or will be made, directly or indirectly from the total wages earned, other than permissible deductions as defined in ORC Chapter 4115; and (5) apprentices are registered with the U.S. Dept. of Labor, Bureau of Apprenticeship and Training. I understand that the willful falsification of any of the above statements may subject the Contractor or Subcontractor to civil or criminal prosecution.

Type or Print Name and Title \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

<sup>2)</sup> Attach additional sheets as necessary. <sup>3)</sup> Type in continuous line, text will wrap.

DO NOT REDO FORM AND CHANGE RATES IF AN ERROR HAS BEEN MADE! SUBMIT A CORRECTED REPORT

\*\*\* CORRECTED \*\*\*

### Certified Payroll Report

Fill out all other areas of the form as usual

Total Hours being corrected for this indiv.

Difference in base rate & corrected base rate if applicable

**Report for:**  Check if Subcontractor<sup>1)</sup> Contract No: \_\_\_\_\_ Payroll No: \_\_\_\_\_  
 Company: <sup>1)</sup> If Sub, GC/Prime Contractor Name: \_\_\_\_\_  
 Address: \_\_\_\_\_ Project Name & Location: \_\_\_\_\_ Week Ending: \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_ Public Authority (Owner): \_\_\_\_\_  
 Phone No: \_\_\_\_\_ Sheet<sup>2)</sup> of \_\_\_\_\_

1. Employee Name, Address, & SSN (Last 4 digits if permitted)	2. Work Class <sup>3)</sup>	3. Prevailing Wage Project Hours Worked - Day & Date	4. Total Hours	5. Base Rate	6. Project Gross	7. Fringes:				8. Total Hrs for all Jobs	9. Total Gross on All Jobs	10. Total Deductions	11. Net Pay on All Jobs
						Cash	Cash & Approved Plans	Approved Plans	Other				
Name Address Last 4 SSN	Class												
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	OT												
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Put the period that is being corrected, i.e.: Oct 26 to Nov 02, not individual weekly dates

Difference in fringes & corrected fringes if applicable.

The net paid will be the total of difference paid and the total hours being corrected. Provide check # in the margin.

1) By signing below, I certify that: (1) I pay, or supervise the payment of the employees shown above; (2) during the pay period reported on this form, all hours worked on this project have been paid at the appropriate prevailing wage rate for the class of work done; (3) the fringe benefits have been paid as indicated above; (4) no rebates or deductions have been or will be made, directly or indirectly from the total wages earned, other than permissible deductions as defined in ORC Chapter 4115; and (5) apprentices are registered with the U.S. Dept. of Labor, Bureau of Apprenticeship and Training. I understand that the willful falsification of any of the above statements may subject the Contractor or Subcontractor to civil or criminal prosecution.

Type or Print Name and Title \_\_\_\_\_ Signature \_\_\_\_\_ Sign \_\_\_\_\_ Date \_\_\_\_\_  
 Complete

11/14 jc <sup>2)</sup> Attach additional sheets as necessary. <sup>3)</sup> Type in continuous line, text will wrap.

Send cover letter stating what happened along with a signed letter from the employee acknowledging that they were underpaid, received payment, check or transaction number. Contractor provided cancelled endorsed bank check.

**IMPORTANT NOTICE** - This process may be different if the Public Authority is using **LCPtracker** or some other online system to collect Certified Payroll Report from the contractors.



Affidavit of Compliance
Prevailing Wages

I, \_\_\_\_\_ (Name of person signing affidavit) (Title)

do hereby certify that the wages paid to all employees of

\_\_\_\_\_ (Company Name)

for all hours worked on the

\_\_\_\_\_ (Project name and location)

project, during the period from \_\_\_\_\_ to \_\_\_\_\_ are in (Project Dates)

compliance with prevailing wage requirements of Chapter 4115 of the Ohio Revised Code. I further certify that no rebates or deductions have been or will be made, directly or indirectly, from any wages paid in connection with this project, other than those provided by law.

\_\_\_\_\_ (Signature of Officer or Agent)

Sworn to and subscribed in my presence this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_ (Notary Public)

The above affidavit must be executed and sworn to by the officer or agent of the contractor or subcontractor who supervises the payment of employees. This affidavit must be submitted to the owner (public authority) before the surety is released or final payment due under the terms of the contract is made.



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## Prevailing Wage Determination Cover Letter

County: WARREN ▼  
Determination Date: 03/09/2022  
Expiration Date: 06/09/2022

THE FOLLOWING PAGES ARE PREVAILING RATES OF WAGES ON PUBLIC IMPROVEMENTS FAIRLY ESTIMATED TO BE MORE THAN THE AMOUNT IN O.R.C. SEC. 4115.03 (b) (1) or (2), AS APPLICABLE.

Section 4115.05 provides, in part: "Where contracts are not awarded or construction undertaken within ninety days from the date of the establishment of the prevailing wages, there shall be a redetermination of the prevailing rate of wages before the contract is awarded." The expiration date of this wage schedule is listed above for your convenience only. This wage determination is not intended as a blanket determination to be used for all projects during this period without prior approval of this Department.

Section 4115.04, Ohio Revised Code provides, in part: "Such schedule of wages shall be attached to and made a part of the specifications for the work, and shall be printed on the bidding blanks where the work is done by contract..."

The contract between the letting authority and the successful bidder shall contain a statement requiring that mechanics and laborers be paid a prevailing rate of wage as required in Section 4115.06, Ohio Revised Code.

The contractor or subcontractor is required to file with the contracting public authority upon completion of the project and prior to final payment therefore an affidavit stating that he has fully complied with Chapter 4115 of the Ohio Revised Code.

The wage rates contained in this schedule are the "Prevailing Wages" as defined by Section 4115.03, Ohio Revised Code (the basic hourly rates plus certain fringe benefits). These rates and fringes shall be a minimum to be paid under a contract regulated by Chapter 4115 of the Ohio Revised Code by contractors and subcontractors. The prevailing wage rates contained in this schedule include the effective dates and wage rates currently on file. In cases where future effective dates are not included in this schedule, modifications to the wage schedule will be furnished to the Prevailing Wage Coordinator appointed by the public authority as soon as prevailing wage rates increases are received by this office.

"There shall be posted in a prominent and accessible place on the site of work a legible statement of the Schedule of Wage Rates specified in the contract to the various classifications of laborers, workmen, and mechanics employed, said statement to remain posted during the life of such contract." Section 4115.07, Ohio Revised Code.

Apprentices will be permitted to work only under a bona fide apprenticeship program if such program exists and if such program is registered with the Ohio Apprenticeship Council.

Section 4115.071 provides that no later than ten days before the first payment of wages is due to any employee of any contractor or subcontractor working on a contract regulated by Chapter 4115, Ohio Revised Code, the contracting public authority shall appoint one of his own employees to act as the prevailing wage coordinator for said contract. The duties of the prevailing wage coordinator are outlined in Section 4115.071 of the Ohio Revised Code.

Section 4115.05 provides for an escalator in the prevailing wage rate. Each time a new rate is established, that rate is required to be paid on all ongoing public improvement projects.

A further requirement of Section 4115.05 of the Ohio Revised Code is: "On the occasion of the first pay date under a contract, the contractor shall furnish each employee not covered by a collective bargaining agreement or understanding between employers and bona fide organizations of Labor with individual written notification of the job classification to which the employee is assigned, the prevailing wage determined to be applicable to that classification, separated into the hourly rate of pay and the fringe payments, and the identity of the prevailing wage Coordinator appointed by the public authority. The contractor or subcontractor shall furnish the same notification to each affected employee every time the job classification of the employee is changed."

Work performed in connection with the installation of modular furniture may be subject to prevailing wage.

**THIS PACKET IS NOT TO BE SEPARATED BUT IS TO REMAIN COMPLETE AS IT IS SUBMITTED TO YOU. (Reference guidelines and forms are included in this packet to be helpful in the compliance of the Prevailing Wage law.)**  
wh1500

# Prevailing Wage Rate Skilled Crafts

Name of Union: Asbestos Local 50 Zone 1

Change # : LCN01-2022sksLoc50

Craft : Asbestos Worker Effective Date : 03/09/2022 Last Posted : 03/09/2022

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Asbestos Insulation Mechanic	\$34.26		\$7.95	\$7.85	\$0.50	\$0.00	\$2.90	\$0.05	\$0.00	\$0.00	\$53.51	\$70.64
Firestop Technician	\$34.26		\$7.95	\$7.85	\$0.50	\$0.00	\$2.90	\$0.05	\$0.00	\$0.00	\$53.51	\$70.64
Apprentice	Percent											
1st year	53.88	\$18.46	\$7.71	\$0.00	\$0.44	\$0.00	\$0.25	\$0.05	\$0.00	\$0.00	\$26.91	\$36.14
2nd year	65.28	\$22.36	\$7.95	\$0.95	\$0.44	\$0.00	\$0.50	\$0.05	\$0.00	\$0.00	\$32.25	\$43.44
3rd year	75.95	\$26.02	\$7.95	\$2.38	\$0.44	\$0.00	\$0.75	\$0.05	\$0.00	\$0.00	\$37.59	\$50.60
4th year	83.75	\$28.69	\$7.95	\$2.38	\$0.44	\$0.00	\$0.75	\$0.05	\$0.00	\$0.00	\$40.26	\$54.61

**Special Calculation Note :** \*other is Labor Mgt Training Fund

**Ratio :**

1 Journeymen to 1 Apprentice  
4 Journeymen to 1 Apprentice thereafter

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ATHENS, AUGLAIZE, BUTLER\*, CLINTON, CRAWFORD, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HARDIN, HOCKING, KNOX, LICKING, LOGAN, MADISON, MARION, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, ROSS, SHELBY, UNION, VINTON, WARREN\*

**Special Jurisdictional Note :** Township of Butler County-Townships of Lemon and Madison. Warren County-Township of Cleer Creek, Franklin, Massie, Turtle Creek and Wayne

**Details :**

# Prevailing Wage Rate Skilled Crafts

Name of Union: Asbestos Local 8 Heat & Frost Insulators

Change # : LCN01-2021fbAsbLoc8

Craft : Asbestos Worker Effective Date : 03/10/2021 Last Posted : 03/10/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Asbestos Insulators	\$31.82		\$7.14	\$9.35	\$0.41	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$51.32	\$67.23
Apprentice	Percent											
1st year	46.67	\$14.85	\$7.14	\$5.10	\$0.41	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$30.10	\$37.53
2nd year	53.58	\$17.05	\$7.14	\$6.65	\$0.41	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$33.85	\$42.37
3rd year	58.30	\$18.55	\$7.14	\$6.65	\$0.41	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$35.35	\$44.63
4th year	63.01	\$20.05	\$7.14	\$6.65	\$0.41	\$0.00	\$2.60	\$0.00	\$0.00	\$0.00	\$36.85	\$46.87

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

**Ratio :**

- 1 Journeymen to 1 Apprentice
- 2 Journeymen to 2 Apprentice
- 3 Journeymen to 3 Apprentice
- 3 Journeymen to 1 Apprentice there After

**Jurisdiction ( \* denotes special jurisdictional note ):**

ADAMS, BROWN, BUTLER\*, CLERMONT, HAMILTON, HIGHLAND, WARREN\*

**Special Jurisdictional Note :** In Butler County:townships of Fairfield,Hanover,Liberty,Milford,Morgan,Oxford,Ripley,Ross,St.Clair,Union & Wayne. In Warren County: Townships of Deerfield,Hamilton,Harlan,Salem,Union & Washington

**Details :**

All work in connection with Asbestos Removal, Abatement, Encapsulation, Lead Abatement, Hazardous Materials and Fire Stopping which is performed by employees in the Mechanic or Apprentice Classification shall be covered under the terms of this Agreement.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Asbestos Local 207 OH

Change # : LCN01-2018fbLoc207OH

Craft : Asbestos Worker Effective Date : 08/23/2018 Last Posted : 08/23/2018

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
<b>Classification</b>											
Asbestos Abatement	\$25.50	\$7.25	\$6.45	\$0.65	\$0.00	\$0.00	\$0.07	\$0.00	\$0.00	\$39.92	\$52.67
Trainee	\$16.50	\$7.25	\$1.50	\$0.65	\$0.00	\$0.00	\$0.07	\$0.00	\$0.00	\$25.97	\$34.22

**Special Calculation Note :**

**Ratio :**

3 Journeymen to 1 Trainee

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ASHLAND, ASHTABULA\*, ATHENS, AUGLAIZE, BROWN, BUTLER\*, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GEAUGA, GREENE, GUERNSEY, HAMILTON, HARDIN, HARRISON, HIGHLAND, HOCKING, HOLMES, HURON, KNOX, LAKE, LICKING, LOGAN, LORAIN, MADISON, MAHONING, MARION, MEDINA, MIAMI, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PORTAGE, PREBLE, RICHLAND, ROSS, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VINTON, WARREN\*, WAYNE

**Special Jurisdictional Note :** Butler County:( townships of Fairfield,Hanover,Liberty,Milford,Morgan,Oxford,Ripley,Ross,StClair,Union & Wayne.) (Lemon & Madison) Warren County: (townships of: Deerfield, Hamilton, Harlan, Salem, Union & Washington). ( Clear Creek, Franklin, Mossie, Turtle Creek & Wayne). Ashtabula County: (post offices & townships of Ashtabula, Austinburg, Geneva, Harperfield, Jefferson, Plymouth & Saybrook) (townships of Andover, Cherry Valley, Colbrook, Canneaut, Denmark, Dorset, East Orwell, Hartsgrove, Kingville, Lenox, Monroe,Morgan,New Lyme,North Kingsville, Orwell, Pierpoint, Richmond Rock Creek, Rome, Sheffield, Trumbull, Wayne, Williamsfield & Windsor) Erie County:(post offices & townships of Berlin, Berlin Heights,Birmingham,Florence ,Huron, Milan, Shinrock & Vermilion)

**Details :**

Asbestos & lead paint abatement including,but not limited to the removal or encapsulation of asbestos & lead paint,all work in conjunction with the preparation of the removal of same & all work in conjunction with the clean up after said removal.The removal of all insulation materials, whether they contain asbestos or not, from mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) is recognized as being the exclusive work of the Asbestos Abatement Workers.

On all mechanical systems (pipes, boilers, ducts, flues, breaching, etc.) that are going to be demolished, the removal of all insulating materials whether they contain asbestos or not shall be the exclusive work of the Laborers.

An Abatement Journeyman is anyone who has more than 300 hours in the Asbestos Abatement field.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Boilermaker Local 105

Change # : LCN02-2013fbLoc 105

Craft : Boilermaker Effective Date : 10/01/2013 Last Posted : 09/25/2013

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Boilermaker	\$35.26		\$7.07	\$13.28	\$0.89	\$0.00	\$3.00	\$0.55	\$0.00	\$0.00	\$60.05	\$77.68
<b>Apprentice</b>	<b>Percent</b>											
1st 6 months	70.03	\$24.69	\$7.07	\$11.30	\$0.89	\$0.00	\$2.10	\$0.55	\$0.00	\$0.00	\$46.60	\$58.95
2nd 6 months	75.02	\$26.45	\$7.07	\$11.30	\$0.89	\$0.00	\$2.25	\$0.55	\$0.00	\$0.00	\$48.51	\$61.74
3rd 6 months	80.00	\$28.21	\$7.07	\$11.30	\$0.89	\$0.00	\$2.40	\$0.55	\$0.00	\$0.00	\$50.42	\$64.52
4th 6 months	85.02	\$29.98	\$7.07	\$11.30	\$0.89	\$0.00	\$2.55	\$0.55	\$0.00	\$0.00	\$52.34	\$67.33
5th 6 months	87.52	\$30.86	\$7.07	\$13.28	\$0.89	\$0.00	\$2.63	\$0.55	\$0.00	\$0.00	\$55.28	\$70.71
6th 6 months	90.03	\$31.74	\$7.07	\$13.28	\$0.89	\$0.00	\$2.70	\$0.55	\$0.00	\$0.00	\$56.23	\$72.11
7th 6 months	92.50	\$32.62	\$7.07	\$13.28	\$0.89	\$0.00	\$2.78	\$0.55	\$0.00	\$0.00	\$57.19	\$73.49
8th 6 months	95.00	\$33.50	\$7.07	\$13.28	\$0.89	\$0.00	\$2.85	\$0.55	\$0.00	\$0.00	\$58.14	\$74.89

**Special Calculation Note :** Other is Supplemental Health and Welfare

**Ratio :**

5 Journeymen to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ATHENS, BROWN, BUTLER,  
CHAMPAIGN, CLARK, CLERMONT, CLINTON,  
FAIRFIELD, FAYETTE, FRANKLIN, GALLIA,  
GREENE, GUERNSEY, HAMILTON, HIGHLAND,  
HOCKING, JACKSON, LAWRENCE, LICKING,  
MADISON, MEIGS, MIAMI, MONTGOMERY,  
MORGAN, MUSKINGUM, NOBLE, PERRY,  
PICKAWAY, PIKE, PREBLE, ROSS, SCIOTO,  
VINTON, WARREN

**Special Jurisdictional Note :**

**Details :**

# Prevailing Wage Rate Skilled Crafts

Name of Union: Boilermaker Local 154

Change # : LCN01-2012kpLoc 154

Craft : Boilermaker Effective Date : 03/22/2012 Last Posted : 03/22/2012

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
<b>Classification</b>												
Boilermaker	\$36.17		\$8.57	\$11.28	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$62.56	\$80.65
Trainee 60%	\$23.25		\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$41.95	\$53.57
Trainee 70%	\$27.13		\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$45.83	\$59.40
Trainee 80%	\$31.00		\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$49.70	\$65.20
Trainee 90%	\$34.88		\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$53.58	\$71.02
<b>Apprentice Registered After 11/01/2005</b>	<b>Percent</b>											
1st 6 months	60.00	\$21.70	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$40.40	\$51.25
2nd 6 months	65.00	\$23.51	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$42.21	\$53.97
3rd 6 months	70.00	\$25.32	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$44.02	\$56.68
4th 6 months	75.00	\$27.13	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$45.83	\$59.39
5th 6 months	80.00	\$28.94	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$47.64	\$62.10
6th 6 months	85.00	\$30.74	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$49.44	\$64.82
7th 6 months	90.00	\$32.55	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$51.25	\$67.53
8th 6 months	95.00	\$34.36	\$8.57	\$3.59	\$0.55	\$0.00	\$4.25	\$0.34	\$0.00	\$1.40	\$53.06	\$70.24

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

**Ratio :**  
5 Journeymen to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**  
BUTLER, COLUMBIANA, FAYETTE, JEFFERSON,  
LAWRENCE, MERCER, WARREN, WASHINGTON

**Special Jurisdictional Note :**

**Details :**

Work includes but not limited to: boiler making, acetylene burning, riveting, chipping, caulking, rigging, fitting-up, grinding, reaming, impact machine operating, unloading, and handling of boilermaker's material and equipment. Boilermakers, Blacksmiths, Forgers, Iron Shipbuilders

# Prevailing Wage Rate Skilled Crafts

Name of Union: Bricklayer Local 18

Change # : LCN01-2021fbLoc18

Craft : Bricklayer Effective Date : 06/01/2021 Last Posted : 05/26/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Bricklayer	\$30.87		\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$46.74	\$62.17
Stone Mason	\$30.87		\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$46.74	\$62.17
Pointer Caulker Cleaner	\$30.87		\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$46.74	\$62.17
Refractory Workers	\$31.87		\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$47.74	\$63.67
Refractory Worker Hot Pay	\$33.87		\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$49.74	\$66.67
Sawman	\$31.12		\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$46.99	\$62.55
Layout Man	\$31.12		\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$46.99	\$62.55
Free Standing Chimney	\$31.37		\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$47.24	\$62.92
<b>Apprentice</b>	<b>Percent</b>											
1st 6 months	60.00	\$18.52	\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34.39	\$43.65
2nd 6 months	65.00	\$20.07	\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.94	\$45.97
3rd 6 months	70.00	\$21.61	\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.48	\$48.28
4th 6 months	75.00	\$23.15	\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.02	\$50.60
5th 6 months	80.00	\$24.70	\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.57	\$52.91
6th 6 months	85.00	\$26.24	\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$42.11	\$55.23
7th 6 months	90.00	\$27.78	\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.65	\$57.54
8th 6 months	95.00	\$29.33	\$9.45	\$5.79	\$0.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$45.20	\$59.86



MASON FINISHER 1st 180 Days	45.00	\$13.89	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$13.89	\$20.84
1st Year H&W after 6 months	45.00	\$13.89	\$9.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23.34	\$30.29
2nd Year	50.00	\$15.44	\$9.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24.88	\$32.60

**Special Calculation Note :** \*\*In order to utilize a Pre-Apprentice, you must have 1 Registered Apprentice in your employ.

**Ratio :**

- 1-2 Journeyman to 1 Apprentice
- 3-4 Journeyman to 2 Apprentice
- 5-6 Journeyman to 2 Apprentice
- 7-10 Journeyman to 3 Apprentice

- 1 Apprentice permits 1 Mason Trainee
- 2 Apprentice permits 1 Mason Trainee
- 3 Apprentice permits 2 Mason Trainees
- 4 Apprentice permits 2 Mason Trainees

For each additional 5 Journeyman to 1 Apprentice,  
for every 3 additional Apprentices, 1 Mason Finisher  
may be added

**Special Jurisdictional Note :** In Preble County the following townships are included: (Dixon, Gasper, Graits, Israel, Lanier and Somers)

**Details :**

MASON FINISHER:duties shall be to work in all aspects of Masonry construction taking direction from the employer and the Journeyman Bricklayer & Stone Mason's working on the job. Mason Finisher's may work on job site only when a registered apprentice is on job and the ratios in table above will strictly be enforced.

Refractory work is classified as working with any of the following materials:  
Acid brick, carbon black brick or carbon black block, firebrick grinding, plastics (with a gun)  
and any resinous cement.

Fifty cents (\$0.50) per hour above scale shall be paid to employees working on free standing industrial or institutional chimneys which are completely detached from any building structure.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Bricklayer Local 18 Tile Finisher

Change # : LCN01-2019fbLoc18

Craft : Bricklayer Effective Date : 09/04/2019 Last Posted : 09/04/2019

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Bricklayer Tile Marble Terrazzo Finisher	\$24.69		\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.51	\$51.86
Terrazzo Base Grinder	\$25.19		\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.01	\$52.61
Marble Sander Polisher	\$24.79		\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.61	\$52.01
Apprentices	Percent											
1st 6 months 0-600 hrs	60.00	\$14.81	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$29.63	\$37.04
2nd 6 months 601-1200 hrs	65.00	\$16.05	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30.87	\$38.89
3rd 6 months 1201-1800 hrs	70.00	\$17.28	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.10	\$40.74
4th 6 months 1801-2400 hrs	75.00	\$18.52	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.34	\$42.60
5th 6 months 2401-3000 hrs	80.00	\$19.75	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34.57	\$44.45
6th 6 months 3001-3600	90.00	\$22.22	\$9.22	\$5.10	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.04	\$48.15
1-30 Days Prior to Entering Apprenticeship	50.00	\$12.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12.35	\$18.52

**Special Calculation Note :** Classification title contains "Bricklayer" because contract originates within the Bricklayer Local.

Note that the classification description is clarified after the local union number at the top of the page. \*\*In order to utilize a Pre-Apprentice, you must have 1 Registered Apprentice in your employ.\*\*

**Ratio :**

- 1 Journeyman to 1 Apprentice
- 5 Journeymen to 1 Apprentice
- 10 Journeymen to 2 Apprentices
- 15 Journeymen to 3 Apprentices
- 20 Journeymen to 4 Apprentices
- 25 Journeymen to 5 Apprentices

**Jurisdiction ( \* denotes special jurisdictional note ) :**

- ADAMS, BROWN, BUTLER, CLERMONT, GALLIA,
- HAMILTON, LAWRENCE, PREBLE\*, SCIOTO,
- WARREN, WARREN\*

**Special Jurisdictional Note :** Warren in the townships of Dixon, Gasper, Isrsel, Somers & Gratis in Prebble County

**Details :**

# Prevailing Wage Rate Skilled Crafts

Name of Union: Bricklayer Local 18 Tile Mechanic

Change # : LCN01-2019fbLoc18

Craft : Bricklayer Effective Date : 09/04/2019 Last Posted : 09/04/2019

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Bricklayer Tile Terrazzo Marble Mason Mechanic	\$29.24		\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44.10	\$58.72
Marble Layout Work	\$29.74		\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44.60	\$59.47
Swing Scaffold Worker	\$30.74		\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$45.60	\$60.97
Apprentice after 2 years (2400 hrs) as Apprentice Finisher												
5th/6 Months 0-600 hrs.	70.00	\$20.47	\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.33	\$45.56
6th/6 months 601-1200 hrs.	75.00	\$21.93	\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36.79	\$47.75
7th/6 months 1201-1800 hrs.	80.00	\$23.39	\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.25	\$49.95
8th/6 months 1801-2400 hrs.	90.00	\$26.32	\$9.22	\$5.10	\$0.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.18	\$54.33

**Special Calculation Note :** Classification title contains "Bricklayer" because contract originates within the Bricklayer Local. Note that the classification description is clarified after the local union number at the top of the page.

**Ratio :**

- 1 Journeyman to 1 Apprentice
- 5 Journeymen to 1 Apprentice
- 10 Journeymen to 2 Apprentices
- 15 Journeymen to 3 Apprentices
- 20 Journeymen to 4 Apprentices
- 25 Journeymen to 5 Apprentices

**Jurisdiction (\* denotes special jurisdictional note) :**

- ADAMS, BROWN, BUTLER, CLERMONT, GALLIA,
- HAMILTON, LAWRENCE, PREBLE\*, SCIOTO, WARREN

**Special Jurisdictional Note :** In Preble County the Townships of Dixon, Israel, Gasper, Lanier, Somers and Gratis.

**Details :**

\*\*In order to utilize a Pre-Apprentice, you must have 1 Registered Apprentice in your employ.\*\*

# Prevailing Wage Rate Skilled Crafts

Name of Union: Carpenter & Pile Driver SW District HevHwy

Change # : LCN01-2021fbLoc126

Craft : Carpenter Effective Date : 06/17/2021 Last Posted : 06/17/2021

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
<b>Classification</b>												
Carpenter	\$31.62		\$8.09	\$6.95	\$0.40	\$0.00	\$3.30	\$0.13	\$0.00	\$0.00	\$50.49	\$66.30
Pile Driver	\$29.34		\$6.63	\$6.95	\$0.40	\$0.00	\$1.97	\$0.10	\$0.00	\$0.00	\$45.39	\$60.06
<b>Apprentice:</b>	<b>Percent</b>											
1st 6 Months	60.00	\$18.97	\$8.09	\$6.95	\$0.40	\$0.00	\$3.30	\$0.13	\$0.00	\$0.00	\$37.84	\$47.33
2nd 6 Months	65.00	\$20.55	\$8.09	\$6.95	\$0.40	\$0.00	\$3.30	\$0.13	\$0.00	\$0.00	\$39.42	\$49.70
3rd 6 Months	70.00	\$22.13	\$8.09	\$6.95	\$0.40	\$0.00	\$3.30	\$0.13	\$0.00	\$0.00	\$41.00	\$52.07
4th 6 Months	75.00	\$23.71	\$8.09	\$6.95	\$0.40	\$0.00	\$3.30	\$0.13	\$0.00	\$0.00	\$42.59	\$54.44
5th 6 Months	80.00	\$25.30	\$8.09	\$6.95	\$0.40	\$0.00	\$3.30	\$0.13	\$0.00	\$0.00	\$44.17	\$56.81
6th 6 Months	85.00	\$26.88	\$8.09	\$6.95	\$0.40	\$0.00	\$3.30	\$0.13	\$0.00	\$0.00	\$45.75	\$59.19
7th 6 Months	90.00	\$28.46	\$8.09	\$6.95	\$0.40	\$0.00	\$3.30	\$0.13	\$0.00	\$0.00	\$47.33	\$61.56
8th 6 Months	95.00	\$30.04	\$8.09	\$6.95	\$0.40	\$0.00	\$3.30	\$0.13	\$0.00	\$0.00	\$48.91	\$63.93

**Special Calculation Note :** Other is UBC National Fund.

**Ratio :**

1 Journeymen to 1 Apprentice

An employer shall have the right to employ one (1) Apprentice for one (1) Journeyman Carpenter in its employment for the first Apprentice employed, and 1 (1) Apprentice for two (2) Journeyman Carpenter for additional Apprentices employed.

Thereafter, every third additional carpenter hired shall be an apprentice, if available, and if practical for the type of work being performed.

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY, WARREN

## **Special Jurisdictional Note :**

### **Details :**

Highway Construction, Airport Construction, Heavy Construction but not limited to:(tunnels,subways,drainage projects,flood control,reservoirs). Railroad Construction,Sewer Waterworks & Utility Construction but not limited to: (storm sewers, waterlines, gaslines). Industrial & Building Site, Power Plant, Amusement Park, Athletic Stadium Site, Sewer and Water Plants.

When the Contractor furnishes the necessary underwater gear for the Diver, the Diver shall be paid one and one half (1&1/2) times the journeyman rate for the time spent in the water.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Carpenter & Pile Driver  
SW Zone 2

Change # : LCN01-2021fbLoc126

Craft : Carpenter Effective Date : 07/14/2021 Last Posted : 07/14/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Carpenter	\$28.67		\$7.88	\$6.95	\$0.43	\$0.00	\$1.91	\$0.13	\$0.00	\$0.00	\$45.97	\$60.31
Pile Driver	\$25.84		\$6.62	\$6.95	\$0.40	\$0.00	\$0.91	\$0.10	\$0.00	\$0.00	\$40.82	\$53.74
Apprentice	Percent											
1st 3 Months	60.00	\$17.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$17.20	\$25.80
2nd 3 Months	60.00	\$17.20	\$7.88	\$0.00	\$0.43	\$0.00	\$1.91	\$0.13	\$0.00	\$0.00	\$27.55	\$36.15
2rd 6 Months	60.00	\$17.20	\$7.88	\$0.00	\$0.43	\$0.00	\$1.91	\$0.13	\$0.00	\$0.00	\$27.55	\$36.15
3rd 6 Months	65.00	\$18.64	\$7.88	\$0.00	\$0.43	\$0.00	\$1.91	\$0.13	\$0.00	\$0.00	\$28.99	\$38.30
4th 6 Months	65.00	\$18.64	\$7.88	\$0.00	\$0.43	\$0.00	\$1.91	\$0.13	\$0.00	\$0.00	\$28.99	\$38.30
5th 6 Months	70.00	\$20.07	\$7.88	\$6.95	\$0.43	\$0.00	\$1.91	\$0.13	\$0.00	\$0.00	\$37.37	\$47.40
6th 6 Months	75.00	\$21.50	\$7.88	\$6.95	\$0.43	\$0.00	\$1.91	\$0.13	\$0.00	\$0.00	\$38.80	\$49.55
7th 6 Months	80.00	\$22.94	\$7.88	\$6.95	\$0.43	\$0.00	\$1.91	\$0.13	\$0.00	\$0.00	\$40.24	\$51.70
8th 6 Months	85.00	\$24.37	\$7.88	\$6.95	\$0.43	\$0.00	\$1.91	\$0.13	\$0.00	\$0.00	\$41.67	\$53.85

**Special Calculation Note :** Other is for UBC National Fund.

**Ratio :**

After employing 1 Journeymen, the next carpenter employed may be an Apprentice. After the first apprentice is employed, the ratio of Apprentice to Journeymen shall not exceed 2 Journeymen for 1 Apprentice.

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BROWN, BUTLER, CLERMONT, CLINTON, HAMILTON, WARREN

**Special Jurisdictional Note :**

**Details :**

Carpenter duties shall include but not limited to: Pile driving, milling, fashioning, joining, assembling, erecting, fastening, or dismantling of all material of wood, plastic, metal, fiber, cork, and composition, and all other substitute materials: pile driving, cutting, fitting, and placing of lagging, and the handling, cleaning, erecting, installing, and dismantling of machinery, equipment, and erecting pre-engineered metal buildings.

Pile Drivers work but not limited to: unloading, assembling, erection, repairs, operation, signaling, dismantling, and reloading all equipment that is used for pile driving including pile butts. pile butts is defined as sheeting or scrap piling. Underwater work that may be required in connection with the installation of piling. The diver and his tender work as a team and shall arrive at their own financial arrangements with the contractor. Any configuration of wood, steel, concrete, or composite that is jettied, driven, or vibrated onto the ground by conventional pile driving equipment for the purpose of supporting a future load that may be permanent or temporary.

Driving bracing, plumbing, cutting off and capping of all piling whether wood, metal, pipe piling or composite. loading, unloading, erecting, framing, dismantling, moving, and handling of pile driving equipment. piling used in the construction and repair of all wharves, docks, piers, trestles, caissons, cofferdams, and the erection of all sea walls and breakwaters. All underwater and marine work on bulkheads, wharves, docks, shipyards, caissons, piers, bridges, pipeline work, viaducts, marine cable and trestles, as well as salvage and reclamation work where divers are employed.

Rate shall include carpenters, acoustic, and ceiling installers, drywall installers, pile drivers, and floorlayers.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Carpenter Floorlayer SW District G

Change # : LCN01-2021sksLocSWDayton

Craft : Carpenter Effective Date : 10/06/2021 Last Posted : 10/06/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Carpenter Floorlayer	\$27.12		\$7.93	\$6.95	\$0.43	\$0.00	\$1.95	\$0.13	\$0.00	\$0.00	\$44.51	\$58.07
Apprentice	Percent											
1st 3 months	65.00	\$17.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$17.63	\$26.44
2nd 3 months	65.00	\$17.63	\$7.93	\$0.00	\$0.43	\$0.00	\$1.95	\$0.13	\$0.00	\$0.00	\$28.07	\$36.88
2nd 6 months	65.00	\$17.63	\$7.93	\$0.00	\$0.43	\$0.00	\$1.95	\$0.13	\$0.00	\$0.00	\$28.07	\$36.88
3rd 6 months	70.00	\$18.98	\$7.93	\$0.00	\$0.43	\$0.00	\$1.95	\$0.13	\$0.00	\$0.00	\$29.42	\$38.92
4th 6 months	75.00	\$20.34	\$7.93	\$0.00	\$0.43	\$0.00	\$1.95	\$0.13	\$0.00	\$0.00	\$30.78	\$40.95
5th 6 months	80.00	\$21.70	\$7.93	\$6.95	\$0.43	\$0.00	\$1.95	\$0.13	\$0.00	\$0.00	\$39.09	\$49.93
6th 6 months	85.00	\$23.05	\$7.93	\$6.95	\$0.43	\$0.00	\$1.95	\$0.13	\$0.00	\$0.00	\$40.44	\$51.97
7th 6 months	90.00	\$24.41	\$7.93	\$6.95	\$0.43	\$0.00	\$1.95	\$0.13	\$0.00	\$0.00	\$41.80	\$54.00
8th 6 months	95.00	\$25.76	\$7.93	\$6.95	\$0.43	\$0.00	\$1.95	\$0.13	\$0.00	\$0.00	\$43.15	\$56.04

**Special Calculation Note :** Other fs for UBC National Fund and Install

**Ratio :**

1 Journeymen to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY, WARREN

**Special Jurisdictional Note :**

**Details :**

Scope of work shall include, but not be limited to: receiving,unloading,handling,distribution and installation of all carpeting materials,carpet padding or matting materials and all resilient materials whether for use on walls,



floors, counter, sink, table and all preparation work necessary in connection therewith, including sanding work. the installation of nonstructural under-layment and the work of removing, cleaning waxing of any of the above. Carpeting shall include any floor covering composed of either natural or synthetic fibers that are made in breadths to be sewed, fastened or directly glued to floors or over cushioning sound-proofing materials. Resilient Floors shall consist of and include the laying of all special designs of wood, wood block, wood composition, cork, linoleum, asphalt, mastic, plastic, rubber tile, whether nailed or glued.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Carpenter Millwright Local 1090 SW Zone I

Change # : LCN01-2021sksLoc1066

Craft : Carpenter Effective Date : 09/22/2021 Last Posted : 09/22/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Carpenter Millwright	\$31.68		\$7.93	\$6.95	\$0.49	\$0.00	\$6.94	\$0.16	\$0.00	\$0.00	\$54.15	\$69.99
Apprentice	Percent											
1st 6 months	60.00	\$19.01	\$7.93	\$4.27	\$0.49	\$0.00	\$4.16	\$0.16	\$0.00	\$0.00	\$36.02	\$45.52
2nd 6 months	65.00	\$20.59	\$7.93	\$4.61	\$0.49	\$0.00	\$4.51	\$0.16	\$0.00	\$0.00	\$38.29	\$48.59
3rd 6 months	70.00	\$22.18	\$7.93	\$4.94	\$0.49	\$0.00	\$4.86	\$0.16	\$0.00	\$0.00	\$40.56	\$51.64
4th 6 months	75.00	\$23.76	\$7.93	\$5.28	\$0.49	\$0.00	\$5.21	\$0.16	\$0.00	\$0.00	\$42.83	\$54.71
5th 6 months	80.00	\$25.34	\$7.93	\$5.61	\$0.49	\$0.00	\$5.55	\$0.16	\$0.00	\$0.00	\$45.08	\$57.76
6th 6 months	85.00	\$26.93	\$7.93	\$5.95	\$0.49	\$0.00	\$5.90	\$0.16	\$0.00	\$0.00	\$47.36	\$60.82
7th 6 months	90.00	\$28.51	\$7.93	\$6.28	\$0.49	\$0.00	\$6.25	\$0.16	\$0.00	\$0.00	\$49.62	\$63.88
8th 6 months	95.00	\$30.10	\$7.93	\$6.62	\$0.49	\$0.00	\$6.59	\$0.16	\$0.00	\$0.00	\$51.89	\$66.93

**Special Calculation Note :** Other (\$0.16) \$0.11 National Fund and National Millwright Fund \$0.05

**Ratio :**

3 Journeymen to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BROWN, BUTLER, CLERMONT, CLINTON, HAMILTON, WARREN

**Special Jurisdictional Note :**

**Details :**

# Prevailing Wage Rate Skilled Crafts

Name of Union: Carpenter NE District Industrial Dock & Door

Change # : LCN01-2014fbCarpNEStatewide

Craft : Carpenter Effective Date : 03/05/2014 Last Posted : 03/05/2014

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
<b>Classification</b>												
Carpenter	\$19.70		\$5.05	\$1.00	\$0.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$25.90	\$35.75
<b>Trainee</b>												
	<b>Percent</b>											
1st Year	60.00	\$11.82	\$5.05	\$1.00	\$0.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.02	\$23.93
2nd Year	80.20	\$15.80	\$5.05	\$1.00	\$0.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.00	\$29.90

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

**Ratio :**

1 Journeymen to 1 Trainee

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, WYANDOT

**Special Jurisdictional Note :** Industrial Dock and Door is the installation of overhead doors, roll up doors and dock leveling equipment

**Details :**

10/27/10 New Contract jc

# Prevailing Wage Rate Skilled Crafts

Name of Union: Cement Mason Bricklayer Local 97 HevHwy A

Change # : LCN01-2021fbHvyHwy

Craft : Bricklayer Effective Date : 06/01/2021 Last Posted : 05/26/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Cement Mason Bricklayer Sewer Water Works A	\$30.40		\$9.50	\$7.57	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$47.95	\$63.15
Apprentice	Percent											
1st year	50.00	\$15.20	\$9.50	\$7.57	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.75	\$40.35
2nd year	70.00	\$21.28	\$9.50	\$7.57	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.83	\$49.47
3rd year	90.00	\$27.36	\$9.50	\$7.57	\$0.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44.91	\$58.59

**Special Calculation Note : NOT FOR BUILDING CONSTRUCTION.**

**Ratio :**

- 3 Journeymen to 1 Apprentice
- 6 Journeymen to 2 Apprentice
- 9 Journeymen to 3 Apprentice
- 12 Journeymen to 4 Apprentice
- 15 Journeymen to 5 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEauga, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE

**Special Jurisdictional Note :**

**Details :**

(A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site Heavy Construction, Airport Construction Or Railroad Construction Work.

(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control,Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Cement Mason Bricklayer Local 97 HevHwy B

Change # : LCN01-2021fbHvyHwy

Craft : Bricklayer Effective Date : 06/01/2021 Last Posted : 05/26/2021

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Cement Mason Bricklayer Power Plants Tunnels Amusement Parks B	\$31.39		\$9.50	\$7.57	\$0.49	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$48.95	\$64.64
Apprentice	Percent											
1st year	50.00	\$15.70	\$9.50	\$7.57	\$0.49	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.26	\$41.10
2nd year	70.00	\$21.97	\$9.50	\$7.57	\$0.49	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.53	\$50.52
3rd year	90.00	\$28.25	\$9.50	\$7.57	\$0.49	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$45.81	\$59.94

**Special Calculation Note : NOT FOR BUILDING CONSTRUCTION.**

**Ratio :**

- 3 Journeymen to 1 Apprentice
- 6 Journeymen to 2 Apprentice
- 9 Journeymen to 2 Apprentice
- 12 Journeymen to 4 Apprentice
- 15 Journeymen to 5 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, SUMMIT,

TRUMBULL, TUSCARAWAS, UNION, VAN WERT,  
VINTON, WARREN, WASHINGTON, WAYNE

**Special Jurisdictional Note :**

**Details :**

(A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site Heavy Construction, Airport Construction Or Railroad Construction Work.

(B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work ,Pollution Control,Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Cement Mason Local 132 (Cincinnati)

Change # : LCN01-2021fbLoc132

Craft : Cement Effective Date : 07/14/2021 Last Posted : 07/14/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Cement Mason	\$28.00		\$7.15	\$6.50	\$0.65	\$0.00	\$0.10	\$0.00	\$0.00	\$0.00	\$42.40	\$56.40
Apprentice	Percent											
1st yr	70.00	\$19.60	\$7.15	\$6.50	\$0.65	\$0.00	\$0.10	\$0.00	\$0.00	\$0.00	\$34.00	\$43.80
2nd yr	80.00	\$22.40	\$7.15	\$6.50	\$0.65	\$0.00	\$0.10	\$0.00	\$0.00	\$0.00	\$36.80	\$48.00
3rd yr	90.00	\$25.20	\$7.15	\$6.50	\$0.65	\$0.00	\$0.10	\$0.00	\$0.00	\$0.00	\$39.60	\$52.20

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

**Ratio :**

- 1 Journeymen to 1 Apprentice
- 4 Journeymen to 2 Apprentice
- 7 Journeymen to 3 Apprentice
- 10 Journeymen to 4 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN

**Special Jurisdictional Note :**

**Details :**

- \*Cement Masons working on silo & slip form work shall receive \$.50 per hour over Journeyman scale.
- \*Cement Masons working on swinging scaffolds shall receive \$.50 per hour over Journeyman scale.
- \*Cement Masons working on high lifts from 20' and above shall receive \$.50 per hour over Journeyman scale.



# Prevailing Wage Rate Skilled Crafts

Name of Union: Cement Mason Statewide HevHwy Exhibit A District II

Change # : OCN01-2021fbCementHevHwy

Craft : Cement Mason Effective Date : 05/01/2021 Last Posted : 04/23/2021

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
<b>Classification</b>												
Cement Mason	\$31.15		\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$49.72	\$65.29
<b>Apprentice</b>	<b>Percent</b>											
1st Year	70.00	\$21.80	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$40.37	\$51.28
2nd Year	80.00	\$24.92	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$43.49	\$55.95
3rd Year	90.00	\$28.03	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$46.60	\$60.62

**Special Calculation Note** : Other \$0.07 is for International Training Fund

**Ratio :**

1 Journeymen to 1 Apprentice  
2 to 1 thereafter

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ALLEN, AUGLAIZE, BROWN, BUTLER, CARROLL, CLERMONT, COLUMBIANA, DEFIANCE, ERIE, HAMILTON, HARDIN, HIGHLAND, HOLMES, HURON, LOGAN, LORAIN, MAHONING, MEDINA, MERCER, OTTAWA, PAULDING, PORTAGE, SANDUSKY, SENECA, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, VAN WERT, WARREN, WAYNE, WILLIAMS

**Special Jurisdictional Note** : (A) Highway Construction, Sewer, Waterworks And Utility Construction, Industrial & Building Site, Heavy Construction, Airport Construction Or Railroad Construction Work.

**Details :**

# Prevailing Wage Rate Skilled Crafts

Name of Union: Cement Mason Statewide HevHwy Exhibit B District II

Change # : OCN01-2021fbCementHevHwy

Craft : Cement Mason Effective Date : 05/01/2021 Last Posted : 04/23/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Cement Mason	\$32.02		\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$50.59	\$66.60
Apprentice	Percent											
1st Year	70.00	\$22.41	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$40.98	\$52.19
2nd Year	80.00	\$25.62	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$44.19	\$56.99
3rd Year	90.00	\$28.82	\$8.25	\$7.35	\$0.65	\$0.00	\$2.25	\$0.07	\$0.00	\$0.00	\$47.39	\$61.80

**Special Calculation Note :** Other \$0.07 is for International Training Fund.

<p><b>Ratio :</b></p> <p>1 Journeymen to 1 Apprentice 2 to 1 thereafter</p>	<p><b>Jurisdiction ( * denotes special jurisdictional note ) :</b></p> <p>ALLEN, AUGLAIZE, BROWN, BUTLER, CARROLL, CLERMONT, COLUMBIANA, DEFIANCE, ERIE, HAMILTON, HARDIN, HIGHLAND, HOLMES, HURON, LOGAN, LORAIN, MAHONING, MEDINA, MERCER, OTTAWA, PAULDING, PORTAGE, SANDUSKY, SENECA, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, VAN WERT, WARREN, WAYNE, WILLIAMS</p>
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**Special Jurisdictional Note :** (B) Power Plant, Tunnels, Amusement Park, Athletic Stadium Site Work, Pollution Control, Sewer Plant, Waste Plant, & Water Treatment Facilities, Construction.

**Details :**



1st 1000 hrs	60.00	\$27.57	\$6.75	\$0.82	\$0.27	\$0.00	\$6.57	\$0.60	\$0.00	\$0.00	\$42.38	\$56.06
2nd 1000 hrs	65.00	\$29.65	\$6.75	\$0.89	\$0.30	\$0.00	\$7.12	\$0.60	\$0.00	\$0.00	\$45.31	\$60.13
3rd 1000 hrs	70.00	\$31.93	\$6.75	\$0.96	\$0.32	\$0.00	\$7.66	\$0.60	\$0.00	\$0.00	\$48.22	\$64.18
4th 1000 hrs	75.00	\$34.21	\$6.75	\$1.03	\$0.34	\$0.00	\$8.21	\$0.60	\$0.00	\$0.00	\$51.14	\$68.24
5th 1000 hrs	80.00	\$36.49	\$6.75	\$1.09	\$0.36	\$0.00	\$8.76	\$0.60	\$0.00	\$0.00	\$54.05	\$72.29
6th 1000 hrs	85.00	\$38.77	\$6.75	\$1.16	\$0.39	\$0.00	\$9.30	\$0.60	\$0.00	\$0.00	\$56.97	\$76.35
7th 1000 hrs	90.00	\$41.05	\$6.75	\$1.23	\$0.41	\$0.00	\$9.85	\$0.60	\$0.00	\$0.00	\$59.89	\$80.41

**Special Calculation Note :** Other is Health Retirement Account

**Operator "A"**

John Henry Rock Drill, D-6 (or equivalent) and above, Trackhoe Digger, (320 Track excavator), Cranes (greater then 25 tons and less than 45 tons).

**Operator "B"**

Cranes (greater than 6 tons and up to 25 tons), Backhoes, Road Tractor, Dozer up to D-5, Pressure Digger-wheeled or tracked, all Tension wire Stringing equipment.

**Operator "C"**

Trench, Backhoe, Riding type vibratory Compactor, Ground Rod Driver, Boom Truck (6 ton & below), Skid Steer Loaders, Material Handler.

\*All Operators of cranes 45 ton or larger shall be paid the journeyman rate of pay. \$0.30 is for Health Retirement Account.

**Ratio :**

1 Journeyman to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HARRISON, HIGHLAND, HOCKING, HOLMES, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, RICHLAND, ROSS, SCIOTO, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VINTON, WARREN, WASHINGTON, WAYNE

**Special Jurisdictional Note :**

**Details :**

Heli - Arc Welding will be paid \$.30 above Journeyman rate. Additional compensation of 10% over the Journeyman

# Prevailing Wage Rate

## Skilled Crafts

Name of Union: Electrical Local 71 Outside Cincinnati

Change # : LCN01-2021fbLoc71Cincinnati

Craft : Lineman Effective Date : 03/16/2021 Last Posted : 03/16/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Electrical Lineman	\$40.31		\$6.75	\$1.21	\$0.40	\$0.00	\$7.66	\$0.06	\$0.00	\$0.00	\$56.39	\$76.54
Traffic Signal & Lighting Journeyman	\$38.77		\$6.75	\$1.16	\$0.39	\$0.00	\$7.37	\$0.06	\$0.00	\$0.00	\$54.50	\$73.89
Equipment Operator	\$35.41		\$6.75	\$1.06	\$0.35	\$0.00	\$6.73	\$0.06	\$0.00	\$0.00	\$50.36	\$68.06
Groundman 0-12 months (W/O CDL)	\$21.47		\$6.75	\$0.64	\$0.21	\$0.00	\$4.08	\$0.06	\$0.00	\$0.00	\$33.21	\$43.95
Groundman 0-21 Months (W/CDL)	\$23.46		\$6.75	\$0.70	\$0.23	\$0.00	\$4.46	\$0.06	\$0.00	\$0.00	\$35.66	\$47.39
Groundman 1 Year or More (W/CDL)	\$25.45		\$6.75	\$0.76	\$0.25	\$0.00	\$4.84	\$0.06	\$0.00	\$0.00	\$38.11	\$50.83
Traffic Signal Apprentices												
1st 1,000 hours	\$23.26		\$6.75	\$0.70	\$0.23	\$0.00	\$4.42	\$0.06	\$0.00	\$0.00	\$35.42	\$47.05
2nd 1,000 hours	\$25.20		\$6.75	\$0.76	\$0.25	\$0.00	\$4.79	\$0.06	\$0.00	\$0.00	\$37.81	\$50.41
3rd 1,000 hours	\$27.14		\$6.75	\$0.81	\$0.27	\$0.00	\$5.16	\$0.06	\$0.00	\$0.00	\$40.19	\$53.76
4th 1,000 hours	\$29.08		\$6.75	\$0.87	\$0.29	\$0.00	\$5.53	\$0.06	\$0.00	\$0.00	\$42.58	\$57.12
5th 1,000 hours	\$31.01		\$6.75	\$0.93	\$0.31	\$0.00	\$5.89	\$0.06	\$0.00	\$0.00	\$44.95	\$60.46
6th 1,000 hours	\$34.89		\$6.75	\$1.05	\$0.35	\$0.00	\$6.63	\$0.06	\$0.00	\$0.00	\$49.73	\$67.17
<b>Apprentice Lineman</b>	<b>Percent</b>											
1st 1,000	60.00	\$24.19	\$6.75	\$0.73	\$0.24	\$0.00	\$4.60	\$0.06	\$0.00	\$0.00	\$36.57	\$48.66

Hours												
2nd 1,000 Hours	65.00	\$26.20	\$6.75	\$0.79	\$0.26	\$0.00	\$4.98	\$0.06	\$0.00	\$0.00	\$39.04	\$52.14
3rd 1,000 Hours	70.00	\$28.22	\$6.75	\$0.85	\$0.28	\$0.00	\$5.36	\$0.06	\$0.00	\$0.00	\$41.52	\$55.63
4th 1,000 Hours	75.00	\$30.23	\$6.75	\$0.91	\$0.30	\$0.00	\$5.74	\$0.06	\$0.00	\$0.00	\$43.99	\$59.11
5th 1,000 Hours	80.00	\$32.25	\$6.75	\$0.97	\$0.32	\$0.00	\$6.13	\$0.06	\$0.00	\$0.00	\$46.48	\$62.60
6th 1,000 Hours	85.00	\$34.26	\$6.75	\$1.03	\$0.34	\$0.00	\$6.51	\$0.06	\$0.00	\$0.00	\$48.95	\$66.09
7th 1,000 Hours	90.00	\$36.28	\$6.75	\$1.09	\$0.36	\$0.00	\$6.89	\$0.06	\$0.00	\$0.00	\$51.43	\$69.57

**Special Calculation Note :** Other is Safety & Education Fund.

**Ratio :** 1 Journeymen to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :** BROWN, BUTLER, CLERMONT, HAMILTON, WARREN

**Special Jurisdictional Note :**

**Details :**

A groundman when directed shall assist a Journeyman in the performance of his/her work on the ground, including the use of hand tools. A Groundman under no circumstances shall climb poles, towers, ladders, or work from an elevated platform or bucket truck.

No more than three (3) Groundmen shall work alone. Jobs with more than three Groundmen shall be supervised by a Groundcrew Foreman, Journeyman Lineman, Journeyman Traffic Signal Technician or an Equipment Operator.

Scope of Work: installation and maintenance of highway and street lighting, highway and street sign lighting, electronic message boards and traffic control systems, camera systems, traffic signal work, substation and line construction including overhead and underground projects for private and industrial work as in accordance with the IBEW Constitution. This Agreement includes the operation of all tools and equipment necessary for the installation of the above projects.

# Prevailing Wage Rate

## Skilled Crafts

Name of Union: Electrical Local 71 Outside Utility Power

Change # : LCN01-2021fbLoc7

Craft : Lineman Effective Date : 03/16/2021 Last Posted : 03/16/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Electrical Lineman	\$43.22		\$6.75	\$1.30	\$0.43	\$0.00	\$10.37	\$0.60	\$0.00	\$0.00	\$62.67	\$84.28
Substation Technician	\$43.22		\$6.75	\$1.30	\$0.43	\$0.00	\$10.37	\$0.60	\$0.00	\$0.00	\$62.67	\$84.28
Cable Splicer	\$45.26		\$6.75	\$1.36	\$0.45	\$0.00	\$10.86	\$0.60	\$0.00	\$0.00	\$65.28	\$87.91
Operator A	\$38.75		\$6.75	\$1.16	\$0.39	\$0.00	\$9.30	\$0.60	\$0.00	\$0.00	\$56.95	\$76.32
Operator B	\$34.27		\$6.75	\$1.03	\$0.34	\$0.00	\$8.22	\$0.60	\$0.00	\$0.00	\$51.21	\$68.34
Operator C	\$27.54		\$6.75	\$0.83	\$0.28	\$0.00	\$6.61	\$0.60	\$0.00	\$0.00	\$42.61	\$56.38
Groundman 0-12 months Exp	\$21.61		\$6.75	\$0.65	\$0.22	\$0.00	\$5.19	\$0.60	\$0.00	\$0.00	\$35.02	\$45.82
Groundman 0-12 months Exp w/CDL	\$23.77		\$6.75	\$0.71	\$0.24	\$0.00	\$5.70	\$0.60	\$0.00	\$0.00	\$37.77	\$49.66
Groundman 1 yr or more	\$23.77		\$6.75	\$0.71	\$0.24	\$0.00	\$5.70	\$0.60	\$0.00	\$0.00	\$37.77	\$49.66
Groundman 1 yr or more w/CDL	\$28.09		\$6.75	\$0.84	\$0.28	\$0.00	\$6.74	\$0.60	\$0.00	\$0.00	\$43.30	\$57.35
Equipment Mechanic A	\$34.27		\$6.75	\$1.03	\$0.34	\$0.00	\$8.22	\$0.60	\$0.00	\$0.00	\$51.21	\$68.34
Equipment Mechanic B	\$30.91		\$6.75	\$0.93	\$0.31	\$0.00	\$7.42	\$0.60	\$0.00	\$0.00	\$46.92	\$62.38
Equipment Mechanic C	\$27.54		\$6.75	\$0.83	\$0.28	\$0.00	\$6.61	\$0.60	\$0.00	\$0.00	\$42.61	\$56.38
Line Truck w/uuger	\$30.44		\$6.75	\$0.91	\$0.30	\$0.00	\$7.31	\$0.60	\$0.00	\$0.00	\$46.31	\$61.53
<b>Apprentice</b>	<b>Percent</b>											
1st 1000 hrs	60.00	\$25.93	\$6.75	\$0.78	\$0.26	\$0.00	\$6.22	\$0.60	\$0.00	\$0.00	\$40.54	\$53.51

2nd 1000 hrs	65.00	\$28.07	\$6.75	\$0.84	\$0.28	\$0.00	\$0.74	\$0.60	\$0.00	\$0.00	\$43.30	\$57.35
3rd 1000 hrs	70.00	\$30.25	\$6.75	\$0.91	\$0.30	\$0.00	\$7.26	\$0.60	\$0.00	\$0.00	\$46.07	\$61.20
4th 1000 hrs	75.00	\$32.42	\$6.75	\$0.97	\$0.32	\$0.00	\$7.78	\$0.60	\$0.00	\$0.00	\$48.84	\$65.04
5th 1000 hrs	80.00	\$34.58	\$6.75	\$1.04	\$0.35	\$0.00	\$8.30	\$0.60	\$0.00	\$0.00	\$51.62	\$68.90
6th 1000 hrs	85.00	\$36.74	\$6.75	\$1.10	\$0.37	\$0.00	\$8.82	\$0.60	\$0.00	\$0.00	\$54.38	\$72.75
7th 1000 hrs	90.00	\$38.90	\$6.75	\$1.17	\$0.39	\$0.00	\$9.34	\$0.60	\$0.00	\$0.00	\$57.15	\$76.60

**Special Calculation Note :** Other is Health Retirement Account

**Operator "A"**

John Henry Rock Drill, D-6 (or equivalent) and above, Trackhoe Digger, (320 Track excavator), Cranes (greater than 25 tons and less than 45 tons).

**Operator "B"**

Cranes (greater than 6 tons and up to 25 tons), Backhoes, Road Tractor, Dozer up to D-5, Pressure Digger-wheeled or tracked, all Tension wire Stringing equipment.

**Operator "C"**

Trench, Backhoe, Riding type vibratory Compactor, Ground Rod Driver, Boom Truck (6 ton & below), Skid Steer Loaders, Material Handler.

**Ratio :**

(1) Journeyman Lineman to (1) Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GEAUGA, GREENE, GUERNSEY, HAMILTON, HARRISON, HIGHLAND, HOCKING, HOLMES, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, RICHLAND, ROSS, SCIOTO, SHELBY, STARK, SUMMIT, TRUMBULL, TUSCARAWAS, UNION, VINTON, WARREN, WASHINGTON, WAYNE

**Special Jurisdictional Note :** 0.30 is for Health Retirement Account.

**Details :**

Heli - Arc Welding will be paid \$.30 above Journeyman rate. Additional compensation of 10% over the Journeyman Lineman and Journeyman Technician for performing work on structures outside of buildings such as water towers, smoke stacks, radio and television towers, more than 75' above the ground.



# Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 71 Voice Data Video Outside

Change # : LCR01-2017fbLoc71VDV

Craft : Voice Data Video Effective Date : 10/18/2017 Last Posted : 10/18/2017

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Installer Technician I	\$23.46	\$5.50	\$0.70	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$29.96	\$41.69
Installer Technician II	\$22.37	\$5.50	\$0.67	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$28.84	\$40.03
Equipment Operator I	\$22.37	\$5.50	\$0.67	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$28.84	\$40.03
Equipment Operator II	\$18.43	\$5.50	\$0.55	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$24.78	\$33.99
Installer/Repair Outside	\$22.37	\$5.50	\$0.67	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$28.84	\$40.03
Ground Driver W/CDL	\$15.83	\$5.50	\$0.47	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$22.10	\$30.01
Groundman	\$13.24	\$5.50	\$0.40	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$19.44	\$26.06
Cable Splicer	\$23.46	\$5.50	\$0.70	\$0.00	\$0.00	\$0.30	\$0.00	\$0.00	\$0.00	\$29.96	\$41.69

**Special Calculation Note :**

**Ratio :**

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GEauga, GREENE, GUERNSEY, HAMILTON, HARRISON, HIGHLAND, HOCKING, HOLMES, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, RICHLAND, ROSS, SCIOTO, SHELBY, STARK, SUMMIT,

**Special Jurisdictional Note :**

**Details :**

Cable Splicer: Inspect and test lines or cables, analyze results, and evaluate transmission characteristics. Cover conductors with insulation or seal splices with moisture-proof covering. Install, splice, test, and repair cables using tools or mechanical equipment. This will include the splicing of fiber.

Journeyman Technician I: Must know all aspects of telephone and cable work. This is to include aerial, underground, and manhole work. Must know how to climb and run bucket. Must have all the tools required to perform these tasks. Must be able to be responsible for the safety of the crew at all times. Must also have CDL license and have at least 5 years experience.

Installer/Repairman: Perform tasks of repairing, installing, and testing phone and CATV services.

Technician II: Have at least three years of telephone and CATV experience. Must have the knowledge of underground, aerial, and manhole work. Must be able to climb and operate bucket. Must have CDL. Must have all tools needed to perform these tasks.

Equipment Operator I: Able to operate a digger derrick or bucket truck. Have at least 5 years of experience and must have a valid CDL license.

Equipment Operator II: Able to operate a digger derrick or bucket truck. Have at least 3 years of experience and must have a valid CDL license.

Groundman W/CDL: Must have a valid CDL license and be able to perform tasks such as: climbing poles, pulling downguys, making up material, and getting appropriate tools for the job. Must have at least 5 year's experience.

Groundman: Perform tasks such as: climbing poles, pulling downguys, making up material, and getting appropriate tools for the job. Experience 0-5 years.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 82 Inside

Change # : LCN01-2021sksLoc82in

Craft : Electrical Effective Date : 11/29/2021 Last Posted : 11/24/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Electrician	\$33.25		\$7.45	\$9.35	\$0.57	\$0.00	\$3.50	\$0.00	\$0.00	\$0.00	\$54.12	\$70.74
Apprentice	Percent											
1st period 0 - 1000 hrs	42.00	\$13.97	\$4.07	\$0.62	\$0.24	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.89	\$25.88
2nd period 1001-2000 hrs	42.00	\$13.97	\$4.07	\$0.62	\$0.24	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.89	\$25.88
3rd period 2001-3500 hrs	47.00	\$15.63	\$6.92	\$4.39	\$0.27	\$0.00	\$1.65	\$0.00	\$0.00	\$0.00	\$28.86	\$36.67
4th period 3501-5000 hrs	52.00	\$17.29	\$6.97	\$4.86	\$0.29	\$0.00	\$1.82	\$0.00	\$0.00	\$0.00	\$31.23	\$39.88
5th period 5001-6500 hrs	62.03	\$20.62	\$7.07	\$5.80	\$0.35	\$0.00	\$2.17	\$0.00	\$0.00	\$0.00	\$36.01	\$46.33
6th period 6501-8000 hrs	77.00	\$25.60	\$7.22	\$7.20	\$0.44	\$0.00	\$2.70	\$0.00	\$0.00	\$0.00	\$43.16	\$55.96

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

**Ratio :**

1 to 3 Journeymen to 3 Apprentices  
4 to 6 Journeymen to 6 Apprentices  
per job site

**Jurisdiction ( \* denotes special jurisdictional note ) :**

CLINTON, DARKE, GREENE, MIAMI,  
MONTGOMERY, PREBLE, WARREN\*

**Special Jurisdictional Note :** The following townships in Warren County are included: Clearcreek, Franklin and Wayne.

**Details :**

Only correction made on 6-19-19 was the 5th year Apprentice fb.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 82 Lightning Rod

Change # : LCR01-2022sksLoc82

Craft : Electrical Effective Date : 01/05/2022 Last Posted : 01/05/2022

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Lightning Rod Technican	\$31.79	\$7.45	\$9.30	\$0.00	\$0.00	\$3.50	\$0.00	\$0.00	\$0.00	\$52.04	\$67.93

**Special Calculation Note** : No Apprentice approved by OSAC.

**Ratio :**

**Jurisdiction ( \* denotes special jurisdictional note ) :**

CLINTON, DARKE, GREENE, MIAMI,  
MONTGOMERY, PREBLE, WARREN\*

**Special Jurisdictional Note** : The following townships in Warren County are included: (Clearcreek, Franklin and Wayne)

**Details :**

# Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 82 Voice Data Video

Change # : LCN01-2021sksLoc82VDV

Craft : Voice Data Video Effective Date : 11/29/2021 Last Posted : 11/24/2021

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Installer Technician A	\$25.95	\$6.60	\$0.78	\$0.49	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$38.22	\$51.20
Electrical Installer Technician B	\$24.65	\$6.60	\$0.74	\$0.47	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$36.86	\$49.18
JW Installer Technician	\$23.36	\$6.60	\$0.70	\$0.44	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$35.50	\$47.18
NON BICSI Installer	\$16.87	\$3.00	\$0.51	\$0.32	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$22.70	\$31.14
Apprentice Indentured Before 09-03-2018											
1st Period 0-1000 Hrs	\$12.98	\$6.60	\$0.39	\$0.25	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$20.47	\$26.96
2nd Period 1001-2000 Hrs	\$12.98	\$6.60	\$0.39	\$0.25	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$20.47	\$26.96
3rd Period 2001-3000 Hrs	\$15.57	\$6.60	\$0.47	\$0.30	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$27.34	\$35.13
4th Period 3001-4000Hrs	\$16.87	\$6.60	\$0.51	\$0.32	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$28.70	\$37.14
5th Period 4001-5000 Hrs	\$18.17	\$6.60	\$0.55	\$0.35	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$30.07	\$39.16
6th Period 5001-6000 Hrs	\$19.46	\$6.60	\$0.58	\$0.37	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$31.41	\$41.14
Cable	\$12.98	\$3.00	\$0.39	\$0.25	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$16.87	\$23.36

Puller												
Apprentice Indentured After 09-04-2018	Percent											
1st 0-1000 hours	55.00	\$14.27	\$3.00	\$0.43	\$0.27	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$18.22	\$25.36
2nd 1001-2000 hours	55.00	\$14.27	\$3.00	\$0.43	\$0.27	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$18.22	\$25.36
3rd 2001-3000 hours	65.00	\$16.87	\$6.50	\$0.51	\$0.32	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$28.60	\$37.03
4th 3001-4000 hours	65.00	\$16.87	\$6.50	\$0.51	\$0.32	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$28.60	\$37.03
5th 4001-5000 hours	75.00	\$19.46	\$6.53	\$0.58	\$0.37	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$31.34	\$41.07
6th 5001-6000 hours	75.00	\$19.46	\$6.53	\$0.58	\$0.37	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$31.34	\$41.07
7th 6001-7000 hours	80.00	\$20.76	\$6.54	\$0.62	\$0.39	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$32.71	\$43.09
8th 7001 hours	80.00	\$20.76	\$6.54	\$0.62	\$0.39	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$32.71	\$43.09
Cable Puller	50.00	\$12.98	\$3.00	\$0.39	\$0.25	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$16.86	\$23.35

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

**Ratio :**

1 Journeymen to 2 Apprentice  
(Indentured After 9-4-2018)

1 Journeymen to 2 Apprentice  
(Indentured Before 9--03-2018)

**Jurisdiction ( \* denotes special jurisdictional note ) :**

CLINTON, DARKE, GREENE, MIAMI,  
MONTGOMERY, PREBLE, WARREN\*

**Special Jurisdictional Note :** The following townships in Warren County are included: (Clearcreek, Franklin and Wayne)

**Details :**

Work covered but not limited to: installation which utilize transmission and/or transference of voice, sound, vision or digital for commercial, education, security and entertainment purposes for the following:

TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multimedia, multiplex, nurse call system, radio page, school intercom, sound and low voltage master clock systems.

Fire Alarm work is excluded on all new construction sites or wherever the fire alarm system is installed in conduit.

All HVAC control work is not covered by this wage rate but by the Inside Electrical wage rate.

# Prevailing Wage Rate

## Skilled Crafts

Name of Union: Electrical Local 648 Voice Data Video

Change # : LCR01-2020fbLoc648VDV

Craft : Voice Data Video Effective Date : 12/03/2020 Last Posted : 12/03/2020

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrical Installer Technician A	\$25.10	\$6.60	\$0.75	\$0.48	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$37.33	\$49.88
Electrical Installer Technician B	\$23.85	\$6.60	\$0.72	\$0.45	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$36.02	\$47.95
JW Installer Technician B	\$22.59	\$6.60	\$0.68	\$0.43	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$34.70	\$46.00
Non BICSI Installer	\$16.32	\$3.00	\$0.49	\$0.31	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$22.12	\$30.28
Apprentice Indentured AFTER 09-03-2018											
1 st Period 0-800 Hrs	\$13.81	\$3.00	\$0.41	\$0.26	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$17.73	\$24.64
2nd Period 801-1600 Hrs	\$13.81	\$3.00	\$0.41	\$0.26	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$17.73	\$24.64
3rd Period 1601-2400 Hrs	\$16.32	\$6.50	\$0.49	\$0.31	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$28.02	\$36.18
4th Period 2401-3200 Hrs	\$16.32	\$6.50	\$0.49	\$0.31	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$28.02	\$36.18
5th Period 3201-4000 Hrs	\$18.83	\$6.53	\$0.56	\$0.36	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$30.68	\$40.10
6th Period 4001-4800 Hrs	\$18.83	\$6.53	\$0.56	\$0.36	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$30.68	\$40.10
7th Period	\$20.08	\$6.54	\$0.60	\$0.38	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$32.00	\$42.04

4801-5600 Hrs												
8th Period 5601-6400	\$20.08	\$6.54	\$0.60	\$0.38	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$0.00	\$32.00	\$42.04
Cable Puller	\$12.55	\$3.00	\$0.38	\$0.25	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$16.43	\$22.71
<b>Apprentice Indentured PRIOR to 09-03-2018</b>	<b>Percent</b>											
1st period 0-800 hrs	50.00	\$12.55	\$6.50	\$0.37	\$0.23	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$19.90	\$26.18
2nd period 801-1600 hrs	50.00	\$12.55	\$6.50	\$0.37	\$0.23	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$19.90	\$26.18
3rd period 1601-2400 hrs	60.00	\$15.06	\$6.50	\$0.44	\$0.28	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$26.68	\$34.21
4th period 2401-3200 hrs	65.00	\$16.32	\$6.50	\$0.47	\$0.30	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$27.98	\$36.14
5th period 3201-4000 hrs	70.00	\$17.57	\$6.50	\$0.51	\$0.32	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$29.30	\$38.09
6th period 4001-4800 hrs	75.00	\$18.83	\$6.50	\$0.55	\$0.35	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$30.63	\$40.04
Cable Puller	50.00	\$12.55	\$3.00	\$0.37	\$0.23	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$16.40	\$22.68

**Special Calculation Note :****Ratio :**

1 Technician to 2 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BUTLER, WARREN\*

**Special Jurisdictional Note :** The following townships In Warren County are included: (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union, and Washington)

**Details :**

The following work is excluded from the Teledata Technician work scope:

\*The installation of computer systems in industrial applications such as assembly lines, robotics, computer controller manufacturing systems.

\*The installation of conduit and/or raceways shall be installed by Inside Wireman. On sites where there is no Inside Wireman employed, the Teledata Technician may install raceway or conduit not greater than 10 ft.

\*Fire Alarm work is excluded on all new construction sites or wherever the fire alarm system is installed in conduit

\*All HVAC control work.





**Details :**

Electricians while splicing cable shall receive \$.50 an hour above the regular electrical rate.

All work that requires the use of gas masks or respirators, shall be paid 50% above the appropriate rate of pay. Work up to & including 40 feet shall be paid \$.50 over the journeyman rate. All work from a Boatswain Chair, Swinging Scaffold, or Barrel shall be at double the Journeyman rate. Workmen required to work 50 feet or more below the surface of the earth will be paid 50% above the Journeyman rate.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 648 Lt Commercial South West

Change # : LCN01-2021sksLoc648in

Craft : Electrical Effective Date : 01/01/2022 Last Posted : 12/22/2021

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Electrician	\$32.00	\$7.25	\$8.05	\$0.48	\$0.00	\$4.05	\$0.12	\$0.00	\$0.00	\$51.95	\$67.95
CE-3 12,001- 14,000 Hrs	\$24.66	\$6.47	\$0.74	\$0.72	\$0.00	\$0.74	\$0.12	\$0.00	\$0.00	\$33.45	\$45.78
CE-2 10,001- 12,000 Hrs	\$19.56	\$6.47	\$0.59	\$0.72	\$0.00	\$0.59	\$0.12	\$0.00	\$0.00	\$28.05	\$37.83
CE-1 8,001- 10,000 Hrs	\$17.86	\$6.47	\$0.54	\$0.72	\$0.00	\$0.54	\$0.12	\$0.00	\$0.00	\$26.25	\$35.18
CW-4 6,001- 8,000 Hrs	\$16.16	\$6.47	\$0.48	\$0.72	\$0.00	\$0.48	\$0.12	\$0.00	\$0.00	\$24.43	\$32.51
CW-3 4,001- 6,000 Hrs	\$14.46	\$6.47	\$0.43	\$0.72	\$0.00	\$0.43	\$0.12	\$0.00	\$0.00	\$22.63	\$29.86
CW-2 2,001- 4,000 Hrs	\$13.61	\$6.47	\$0.41	\$0.72	\$0.00	\$0.41	\$0.12	\$0.00	\$0.00	\$21.74	\$28.54
CW-1 0- 2,000 Hrs	\$12.76	\$6.47	\$0.38	\$0.72	\$0.00	\$0.38	\$0.12	\$0.00	\$0.00	\$20.83	\$27.21

**Special Calculation Note :** Other is for NEBF (National Electrical Benefit Fund)

**Ratio :**

Construction Electrician and Construction Wireman Ratio

There shall be a minimum ratio of one inside Journeyman to every (4) employees of different classification per jobsite. An inside Journeyman Wireman is required on the project as the fifth (5th) worker or when apprentices are used

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BUTLER, WARREN\*

**Special Jurisdictional Note :** In Warren County the following townships are included: (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union, and Washington)

The scope of work for the light commercial agreement shall apply to the following facilities not to exceed 200,000 square feet; office buildings, shopping centers, auto sales agencies and garages, churches, funeral homes, nursing homes, hotels, retail and wholesale facilities, small stand-alone manufacturing facilities when free standing and not part of a larger facility (not to exceed 50,000 square feet), solar projects (500 panels or less) unless otherwise covered under the agreement, lighting retrofits (when not associated with remodels involving branch re-circuiting) lighting retrofits shall be defined as the changing of lamps and ballasts in existing light fixtures and shall also include the one for one replacement of existing fixtures, warehouses, gas stations, food service centers, restaurants, entertainment facilities, hospitals, clinics, motels, residential buildings.

**Details :**

Electricians while splicing cable shall receive \$.50 an hour above the regular electrical rate.

All work that requires the use of gas masks or respirators, shall be paid 50% above the appropriate rate of pay. Work up to & including 40 feet shall be paid \$.50 over the journeyman rate. All work from a Boatswain Chair, Swinging Scaffold, or Barrel shall be at double the Journeyman rate. Workmen required to work 50 feet or more below the surface of the earth will be paid 50% above the Journeyman rate.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Electrical Local 648 Voice Data Video

Change # : LCR01-2021sksLoc648VDV

Craft : Voice Data Video Effective Date : 12/22/2021 Last Posted : 12/22/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Electrical Installer Technician A	\$25.95		\$6.60	\$0.78	\$0.49	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$38.22	\$51.20
Electrical Installer Technician B	\$24.65		\$6.60	\$0.74	\$0.47	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$36.86	\$49.18
JW Installer Technician B	\$23.36		\$6.60	\$0.70	\$0.44	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$35.50	\$47.18
Non BICSI Installer	\$16.87		\$3.00	\$0.51	\$0.32	\$0.00	\$2.40	\$0.00	\$0.00	\$0.00	\$23.10	\$31.53
<b>Apprentice</b>												
	Percent											
1st period 0-800 hrs	55.00	\$14.27	\$3.00	\$0.43	\$0.27	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$18.22	\$25.36
2nd period 801-1600 hrs	55.00	\$14.27	\$3.00	\$0.43	\$0.27	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$18.22	\$25.36
3rd period 1601-2400 hrs	65.00	\$16.87	\$6.50	\$0.51	\$0.32	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$28.60	\$37.03
4th period 2401-3200 hrs	65.00	\$16.87	\$6.50	\$0.51	\$0.32	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$28.60	\$37.03
5th period 3201-4000 hrs	75.00	\$19.46	\$6.53	\$0.58	\$0.37	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$31.34	\$41.07
6th period 4001-4800 hrs	75.00	\$19.46	\$6.53	\$0.58	\$0.37	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$31.34	\$41.07
7th period 4801-4900hr	80.00	\$20.76	\$6.54	\$0.62	\$0.39	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$32.71	\$43.09

8th period 4901- 5000hrs	80.00	\$20.76	\$6.54	\$0.62	\$0.39	\$0.00	\$4.40	\$0.00	\$0.00	\$0.00	\$32.71	\$43.09
Cable Puller	50.00	\$12.98	\$3.00	\$0.39	\$0.25	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$16.86	\$23.35

**Special Calculation Note :**

**Ratio :**

1 Technician to 2 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BUTLER, WARREN\*

**Special Jurisdictional Note :** The following townships In Warren County are included: (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union, and Washington)

**Details :**

The following work is excluded from the Teledata Technician work scope:

- \*The installation of computer systems in industrial applications such as assembly lines, robotics, computer controller manufacturing systems.
- \*The installation of conduit and/or raceways shall be installed by Inside Wireman. On sites where there is no Inside Wireman employed, the Teledata Technician may install raceway or conduit not greater than 10 ft.
- \*Fire Alarm work is excluded on all new construction sites or wherever the fire alarm system is installed in conduit
- \*All HVAC control work.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Elevator Local 11

Change # : LCN01-2020fbLoc11

Craft : Elevator Effective Date : 01/05/2021 Last Posted : 01/05/2021

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Elevator Mechanic	\$48.82		\$15.88	\$10.46	\$0.64	\$3.91	\$8.85	\$1.56	\$0.00	\$0.00	\$90.12	\$114.53
Probationary Apprentice	50.00	\$24.41	\$0.00	\$0.00	\$0.00	\$1.46	\$0.00	\$0.78	\$0.00	\$0.00	\$26.65	\$38.86
1st year	55.00	\$26.85	\$15.88	\$10.46	\$0.64	\$1.61	\$8.85	\$0.86	\$0.00	\$0.00	\$65.15	\$78.58
2nd year	65.00	\$31.73	\$15.88	\$10.46	\$0.64	\$1.90	\$8.85	\$1.02	\$0.00	\$0.00	\$70.48	\$86.35
3rd year	70.00	\$34.17	\$15.88	\$10.46	\$0.64	\$2.05	\$8.85	\$1.09	\$0.00	\$0.00	\$73.14	\$90.23
4th year	80.00	\$39.06	\$15.88	\$10.46	\$0.64	\$2.34	\$8.85	\$1.25	\$0.00	\$0.00	\$78.48	\$98.00
Helper	70.00	\$34.17	\$15.88	\$10.46	\$0.64	\$2.05	\$8.85	\$1.09	\$0.00	\$0.00	\$73.14	\$90.23
Assistant Mechanic	80.00	\$39.06	\$15.88	\$10.46	\$0.64	\$2.34	\$8.85	\$1.25	\$0.00	\$0.00	\$78.48	\$98.00

**Special Calculation Note :** Other is Holiday Pay. Vacation calculated at 6%.

## Ratio :

The total number of Helpers & Apprentices employed shall not exceed the number of Mechanics on any one job, except on jobs where (2) teams or more are working, (1) extra Helper or Apprentice may be employed for the first (2) teams and an extra Helper or Apprentice for each additional (3) teams.

- 1 Journeymen to 1 Apprentice
- 2 Journeymen to 5 Apprentice
- 3 Journeymen to 6 Apprentice

## Special Jurisdictional Note :

## Details :

## Jurisdiction ( \* denotes special jurisdictional note ) :

ADAMS, BROWN, BUTLER, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, HIGHLAND, MIAMI, MONTGOMERY, PREBLE, SCIOTO, SHELBY, WARREN

# Prevailing Wage Rate Skilled Crafts

Name of Union: Glazier Local 387

Change # : LCN01-2020fbLoc387

Craft : Glazier Effective Date : 11/01/2020 Last Posted : 10/28/2020

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Glazier	\$27.93		\$5.67	\$10.10	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.95	\$57.92
Apprentice	Percent											
1st 6 months	53.70	\$15.00	\$5.67	\$0.00	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$20.92	\$28.42
2nd 6 months	65.00	\$18.15	\$5.67	\$6.19	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30.26	\$39.34
3rd 6 months	70.00	\$19.55	\$5.67	\$6.71	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.18	\$41.96
4th 6 months	75.00	\$20.95	\$5.67	\$6.85	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.72	\$44.19
5th 6 months	80.00	\$22.34	\$5.67	\$7.43	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.69	\$46.87
6th 6 months	85.00	\$23.74	\$5.67	\$7.57	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.23	\$49.10
7th 6 months	90.00	\$25.14	\$5.67	\$8.09	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.15	\$51.72
8th 6 months	95.00	\$26.53	\$5.67	\$8.68	\$0.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.13	\$54.40

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

## Ratio :

Each employer may employ and train Apprentices in the following ratio to journeymen workers employed.  
1 Journeymen to 1 Apprentice

## Jurisdiction ( \* denotes special jurisdictional note ) :

ADAMS, BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, FAYETTE\*, GREENE, HAMILTON, HIGHLAND, MIAMI, MONTGOMERY, PREBLE, SHELBY\*, WARREN

**Special Jurisdictional Note :** Fayette County: Eastern portion of route #41 being the dividing line between locals 372 and 387. Local 387 has jurisdiction of projects built on property which borders route #41 East. Shelby County: Southern portion of routes #47 & 29.

## Details :



# Prevailing Wage Rate Skilled Crafts

Name of Union: Ironworker Local 44

Change # : LCNO1-2021fbLoc44

Craft : Ironworker Effective Date : 06/24/2021 Last Posted : 06/24/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Ironworker Reinforcing	\$31.82		\$8.50	\$9.50	\$0.60	\$0.00	\$3.00	\$0.20	\$0.00	\$0.00	\$53.62	\$69.53
Structural	\$31.32		\$8.50	\$9.50	\$0.60	\$0.00	\$3.00	\$0.20	\$0.00	\$0.00	\$53.12	\$68.78
Ornamental	\$31.32		\$8.50	\$9.50	\$0.60	\$0.00	\$3.00	\$0.20	\$0.00	\$0.00	\$53.12	\$68.78
Machine Mover/Rigger	\$31.32		\$8.50	\$9.50	\$0.60	\$0.00	\$3.00	\$0.20	\$0.00	\$0.00	\$53.12	\$68.78
Conveyer Mechanic	\$31.32		\$8.50	\$9.50	\$0.60	\$0.00	\$3.00	\$0.20	\$0.00	\$0.00	\$53.12	\$68.78
Maintenance/Heavy Hwy	\$31.32		\$8.50	\$9.50	\$0.60	\$0.00	\$3.00	\$0.20	\$0.00	\$0.00	\$53.12	\$68.78
Welder A	\$31.57		\$8.50	\$9.50	\$0.60	\$0.00	\$3.00	\$0.20	\$0.00	\$0.00	\$53.37	\$69.15
Welder B	\$31.82		\$8.50	\$9.50	\$0.60	\$0.00	\$3.00	\$0.20	\$0.00	\$0.00	\$53.62	\$69.53
Sheeter	\$31.32		\$8.50	\$9.50	\$0.60	\$0.00	\$3.00	\$0.20	\$0.00	\$0.00	\$53.12	\$68.78
Fence Erector	\$29.75		\$8.50	\$9.50	\$0.60	\$0.00	\$3.00	\$0.20	\$0.00	\$0.00	\$51.55	\$66.42
Ironworker	\$31.32		\$8.50	\$9.50	\$0.60	\$0.00	\$3.00	\$0.20	\$0.00	\$0.00	\$53.12	\$68.78
<b>Apprentice</b>	<b>Percent</b>											
Apprentice												
1st yr A	60.00	\$19.09	\$8.50	\$9.50	\$0.60	\$0.00	\$0.75	\$0.20	\$0.00	\$0.00	\$38.64	\$48.19
1st yr B	65.00	\$20.68	\$8.50	\$9.50	\$0.60	\$0.00	\$0.75	\$0.20	\$0.00	\$0.00	\$40.23	\$50.57
2nd yr A	70.00	\$22.27	\$8.50	\$9.50	\$0.60	\$0.00	\$0.75	\$0.20	\$0.00	\$0.00	\$41.82	\$52.96
2nd yr B	75.00	\$23.87	\$8.50	\$9.50	\$0.60	\$0.00	\$0.75	\$0.20	\$0.00	\$0.00	\$43.42	\$55.35
3rd yr A	80.00	\$25.46	\$8.50	\$9.50	\$0.60	\$0.00	\$1.50	\$0.20	\$0.00	\$0.00	\$45.76	\$58.48
3rd yr B	85.00	\$27.05	\$8.50	\$9.50	\$0.60	\$0.00	\$1.50	\$0.20	\$0.00	\$0.00	\$47.35	\$60.87
4th yr A	90.00	\$28.64	\$8.50	\$9.50	\$0.60	\$0.00	\$2.25	\$0.20	\$0.00	\$0.00	\$49.69	\$64.01
4th yr B	95.00	\$30.23	\$8.50	\$9.50	\$0.60	\$0.00	\$2.25	\$0.20	\$0.00	\$0.00	\$51.28	\$66.39
4th yr C	100.00	\$31.82	\$8.50	\$9.50	\$0.60	\$0.00	\$2.25	\$0.20	\$0.00	\$0.00	\$52.87	\$68.78

**Special Calculation Note : Other is Impact Fund Training**

**Ratio :**

1 Journeymen to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS\*, BROWN, BUTLER\*, CLERMONT,

2 Journeymen to 2 Apprentice  
10 Journeymen to 4 Apprentices

CLINTON\*, HAMILTON, HIGHLAND\*, WARREN\*

**Special Jurisdictional Note :** Adams County Twps included: Bratton, Scott, Winchester, Wayne. Butler County Twps included: Oxford, St. Clair, Fairfield, Morgan, Liberty, Union, Ross, Reilly, Hanover. West Chester. In Clinton County, Manchester and South West Borrow. Highland County Twps included: Dotson, Salem, Clay, White Oak, Hamer, New Market, Concord, Jackson, Washington. Warren County Twps included: Harlan, Deerfield, Hamilton.

**Details :**

Structural Iron Work but not limited to:field fabrication, all loading to and including the erecting,rigging,assembly,dismantling, placing, temporary and permanent securing by any means of all structural iron,steel,ornamental lead,bronze,brass,copper,aluminum,glass all ferrous and non ferrous metal and composite material, precast prestressed and post-stressed concrete structures. Bridges and bridge rails,bridge viaducts,bucks bulkheads,bumper and bumper post,canopies and unistrut canopies,corrugated ferrous and non ferrous sheets when attached to steel frames,columns,beams,bar-joists,trusses,grinders,roof decking,electrical supports,elevator cars,elevator fronts and enclosures,erection of steel towers,flag poles, gymnasium equipment,stadium and arena seating,jail cell work,jail cell beds,benches,bunks,chairs,tables,mirrors,jail cell access doors,rigging and installation of machinery and equipment(erecting,aligning,anchoring and dismantling, erection and dismantling of tower cranes,derrick monorail systems, Chicago booms,overhead cranes,gantries,material and personnel hoists,tanks,hoppers and conveyors. All pre-engineered metal buildings and their entirety including siding,roofing, gutters, downspouts and erection of all.

Ornamental Iron Work but not limited to:all work in connection with field fabrication,handling including loading/off loading,sorting,cutting,fastening,anchoring,bending,hoisting,placing,burning,welding,and tying,dismantling of all materials used in miscellaneous iron or steel, for stairs,hand railings,rolling doors, rolling gates,rolling shutters,fence,windows,curtain wall,erection and welding of all metal, sash,architectural and ornamental treatments, but not necessarily limited to all sizes and types of ornamental,steel iron,lead,bronze,brass,copper,aluminum,all ferrous and non ferrous metals and composite materials

Fence Erector Iron Worker but not limited to: All work in connection with the field fabrication and erection of chain link fence,which includes but not limited to the loading and of the fence fabric and posts also the installation of the above.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Ironworker Local 290

Change # : LCN01-2021fbLoc290

Craft : Ironworker Effective Date : 01/27/2021 Last Posted : 01/27/2021

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate	
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)			
Classification												
Ironworker Structural	\$29.68	\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44	
Welder	\$29.68	\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44	
Fence Erector	\$29.68	\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44	
Reinforcing Rods	\$29.68	\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44	
Machinery Mover	\$29.68	\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44	
Sheeter	\$29.68	\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44	
Metal Building Erector	\$29.68	\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44	
Rigger & Erector	\$29.68	\$8.30	\$9.50	\$0.65	\$0.00	\$4.45	\$0.02	\$0.00	\$0.00	\$52.60	\$67.44	
Apprentice	Percent											
1st year	65.05	\$19.31	\$8.30	\$9.50	\$0.65	\$0.00	\$2.95	\$0.02	\$0.00	\$0.00	\$40.73	\$50.38
2nd year	75.07	\$22.28	\$8.30	\$9.50	\$0.65	\$0.00	\$2.95	\$0.02	\$0.00	\$0.00	\$43.70	\$54.84
3rd year	85.05	\$25.24	\$8.30	\$9.50	\$0.65	\$0.00	\$2.95	\$0.02	\$0.00	\$0.00	\$46.66	\$59.28
4th year	95.05	\$28.21	\$8.30	\$9.50	\$0.65	\$0.00	\$2.95	\$0.02	\$0.00	\$0.00	\$49.63	\$63.74

**Special Calculation Note :** Other is for Industry Fund.

**Ratio :**

3 Journeymen to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ALLEN\*, AUGLAIZE, BUTLER\*, CHAMPAIGN\*, CLARK, CLINTON, DARKE, FAYETTE\*, GREENE, HARDIN\*, HIGHLAND\*, LOGAN\*, MADISON\*, MERCER\*, MIAMI, MONTGOMERY, PREBLE, SHELBY, VAN WERT\*, WARREN\*

**Special Jurisdictional Note :** Allen County Twps included are: Auglaize, Perry, Shawnee, Amanda, Spencer, Marion, Sugar Creek, American, Bath, Jackson. Butler County Twps included are: Milford, Wayne, Madison, Lemon. Champaign Cnty Twps included are: Union, Urbana, Jackson, Concord, Salem, Mad River, Johnson, Harrison, Adams. Fayette County Twps included are: Green, Jasper,

Concord, Jefferson. Hardin County Twps included are: Round Head, Marion, Liberty. Highland County Twps included are: Fairfield, Penn, Union, Marshall, Liberty, Paint, Brush Creek. Logan County Twps included are: Richland, Stokes, Bloomfield, Washington, Harrison, McArthur, Lake, Liberty, Pleasant, Miami. Madison County Twps included are: Stokes. Mercer County Twps included are: Dublin, Washington, Jefferson, Recovery, Gibson, Union, Liberty, Butler, Granville, Center, Hopewell, Franklin, Marion. VanWert County Twps included are: Jennings. Warren County Twps included are: Franklin, Clear Creek, Turtle Creek, Wayne, Massie, Washington, Salem, Union.

### **Details :**

Structural Iron Work but not limited to: field fabrication, all loading to and including the erecting, rigging, assembly, dismantling, placing, temporary and permanent securing by any means of all structural iron, steel, ornamental lead, bronze, brass, copper, aluminum, glass all ferrous and non ferrous metal and composite material, precast prestressed and post-stressed concrete structures. Bridges and bridge rails, bridge viaducts, bucks bulkheads, bumper and bumper post, canopies and unistrut canopies, corrugated ferrous and non ferrous sheets when attached to steel frames, columns, beams, bar-joists, trusses, grinders, roof decking, electrical supports, elevator cars, elevator fronts and enclosures, erection of steel towers, flag poles, gymnasium equipment, stadium and arena seating, jail cell work, jail cell beds, benches, bunks, chairs, tables, mirrors, jail cell access doors, rigging and installation of machinery and equipment (erecting, aligning, anchoring and dismantling, erection and dismantling of tower cranes, derrick monorail systems, Chicago booms, overhead cranes, gantries, material and personnel hoists, tanks, hoppers and conveyors. All pre-engineered metal buildings and their entirety including siding, roofing, gutters, downspouts and erection of all.

Ornamental Iron Work but not limited to: all work in connection with field fabrication, handling including loading/off loading, sorting, cutting, fastening, anchoring, bending, hoisting, placing, burning, welding, and tying, dismantling of all materials used in miscellaneous iron or steel, for stairs, hand railings, rolling doors, rolling gates, rolling shutters, fence, windows, curtain wall, erection and welding of all metal, sash, architectural and ornamental treatments, but not necessarily limited to all sizes and types of ornamental, steel iron, lead, bronze, brass, copper, aluminum, all ferrous and non ferrous metals and composite materials

Fence Erector Iron Worker but not limited to: All work in connection with the field fabrication and erection of chain link fence, which includes but not limited to the loading and of the fence fabric and posts also the installation of the above.

# Prevailing Wage Rate

## Skilled Crafts

Name of Union: Labor Hwy 3

Change # : LCN01-2021fbLocalHwy3

Craft : Laborer Group 1 Effective Date : 05/01/2021 Last Posted : 04/21/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Laborer Group 1	\$33.27		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$45.22	\$61.86
Group 2	\$33.44		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$45.39	\$62.11
Group 3	\$33.77		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$45.72	\$62.61
Group 4	\$34.22		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$46.17	\$63.28
Watch Person	\$26.00		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$37.95	\$50.95
Apprentice	Percent											
0-1000 hrs	60.00	\$19.96	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$31.91	\$41.89
1001-2000 hrs	70.00	\$23.29	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$35.24	\$46.88
2001-3000 hrs	80.00	\$26.62	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$38.57	\$51.87
3001-4000 hrs	90.00	\$29.94	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$41.89	\$56.86
More than 4000 hrs	100.00	\$33.27	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$45.22	\$61.86

**Special Calculation Note :** Watchmen have no Apprentices. Tunnel Laborer rate with air-pressurized add \$1.00 to the above wage rate.

### Ratio :

- 1 Journeymen to 1 Apprentice
- 3 Journeymen to 1 Apprentice thereafter

### Jurisdiction ( \* denotes special jurisdictional note ) :

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, PAULDING, PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM, RICHLAND, ROSS, SCIOTO, SENECA, SHELBY, TUSCARAWAS.

**Special Jurisdictional Note :** Hod Carriers and Common Laborers - Heavy, Highway, Sewer, Waterworks, Utility, Airport, Railroad, Industrial and Building Site, Sewer Plant, Waste Water Treatment Facilities Construction

**Details :**

Group 1

Laborer (Construction); Plant Laborer or Yardman, Right-of-way Laborer, Landscape Laborer, Highway Lighting Worker, Signalization Worker, (Swimming) Pool Construction Laborer, Utility Man, \*Bridge Man, Handyman, Joint Setter, Flagperson, Carpenter Helper, Waterproofing Laborer, Slurry Seal, Seal Coating, Surface Treatment or Road Mix Laborer, Riprap Laborer & Grouter, Asphalt Laborer, Dump Man (batch trucks), Guardrail & Fence Installer, Mesh Handler & Placer, Concrete Curing Applicator, Scaffold Erector, Sign Installer, Hazardous Waste (level D), Diver Helper, Zone Person and Traffic Control.

\*Bridge Man will perform work as per the October 31, 1949, memorandum on concrete forms, by and between the United Brotherhood of Carpenters and Joiners of America and the Laborers' International Union of North America, which states in; "the moving, cleaning, oiling and carrying to the next point of erection, and the stripping of forms which are not to be re-used, and forms on all flat arch work shall be done by members of the Laborers' International Union of North America."

Group 2

Asphalt Raker, Screwman or Paver, Concrete Puddler, Kettle Man (pipeline), All Machine-Driven Tools (Gas, Electric, Air), Mason Tender, Brick Paver, Mortar Mixer, Skid Steer, Sheeting & Shoring Person, Surface Grinder Person, Screedperson, Water Blast, Hand Held Wand, Power Buggy or Power Wheelbarrow, Paint Striper, Plastic fusing Machine Operator, Rodding Machine Operator, Pug Mill Operator, Operator of All Vacuum Devices Wet or Dry, Handling of all Pumps 4 inches and under (gas, air or electric), Diver, Form Setter, Bottom Person, Welder Helper (pipeline), Concrete Saw Person, Cutting with Burning Torch, Pipe Layer, Hand Spiker (railroad), Underground Person (working in sewer and waterline, cleaning, repairing and reconditioning). Tunnel Laborer (without air), Caisson, Cofferdam (below 25 feet deep), Air Track and Wagon Drill, Sandblaster Nozzle Person, Hazardous Waste (level B), \*\*\*Lead Abatement, Hazardous Waste (level C)

\*\*\*Includes the erecting of structures for the removal, including the encapsulation and containment of Lead abatement process.

Group 3

Blast and Powder Person, Muckers will be defined as shovel men working directly with the miners, Wrencher (mechanical joints & utility pipeline), Yarnier, Top Lander, Hazardous Waste (level A), Concrete Specialist, Curb Setter and Cutter, Grade Checker, Concrete Crew in Tunnels. Utility pipeline Tappers, Waterline, Caulker, Signal Person will receive the rate equal to the rate paid the Laborer classification for which the Laborer is signaling.

Group 4

Miner, Welder, Gunitite Nozzle Person

A.) The Watchperson shall be responsible to patrol and maintain a safe traffic zone including but not limited to barrels, cones, signs, arrow boards, message boards etc.

The responsibility of a watchperson is to see that the equipment, job and office trailer etc. are secure.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Labor Local 534 Building

Change # : LCNO1-2021fbLoc534

Craft : Laborer Effective Date : 06/03/2021 Last Posted : 06/03/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Laborer Group 1	\$29.39		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$41.34	\$56.04
Laborer Group 2	\$29.49		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$41.44	\$56.19
Laborer Group 3	\$29.59		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$41.54	\$56.34
Laborer Group 4	\$29.72		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$41.67	\$56.53
Laborer Group 5	\$29.97		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$41.92	\$56.91
Laborer Group 6	\$29.74		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$41.69	\$56.56
Laborer Group 7	\$28.94		\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$40.89	\$55.36
<b>Apprentice</b>	<b>Percent</b>											
0-1000 hrs	60.00	\$17.63	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$29.58	\$38.40
1001-2000 hrs	70.00	\$20.57	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$32.52	\$42.81
2001-3000 hrs	80.00	\$23.51	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$35.46	\$47.22
3001-4000	90.00	\$26.45	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$38.40	\$51.63
4001	100.00	\$29.39	\$7.50	\$3.90	\$0.45	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$41.34	\$56.04

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

**Ratio :**

1 Journeyman to 1 Apprentice  
3 Journeyman to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BUTLER, WARREN

**Special Jurisdictional Note :**

**Details :**

Note:

Group 1: Building & Common Laborer; All general laborers work including all forms of landscaping, Rough Rider - all pump's 4 inch or smaller, Small Pump Portable Generators-Bobcat to Cleanup, Firewatch and Monitor, (Safety Person)

Group 2: Asphalt Raker, Tamper, Smoother, Hand Air Pump, Hand air Tamper, Chisel, Power Tamper, Operator, Switch, Assemblies, Handling & Laying Precast Concrete Floors & Deck Tool Repairman.

Group 3: Concrete Specialist; Skid Steers (with attachments to perform Laborer's duties) Jack Hammer \* Concrete Busterman, Barco Tamper Man, Power Georgia Buggy Man, Power Sweeper Man, Vibrator, Concrete Saw Man, Rail Spikers, Acetylene Burner, Pipelayers, Bos'n Cradleman, Bottom Man, Chipping Hammer Grade Checker, Radio Operator, Form Cleanout & blowout Man, Red Concrete Coloring Man (Electrical Safety)

Group 4: Mason Tender, Mortar Mixers & Scaffold Builders

Group 5: Fork Lift for Mason, all work involving Refractory Materials Including Demolition of Refractory Materials.

Asbestos Removal and Hazardous Waste Removal (handling, control, removal abatement, encapsulation or disposal of asbestos & hazardous waste),

Group 6: Gunnite Man, Sand Blaster, Concrete & Grout Pump & Hose Man, Blast Trac, Miners & Muckers, Free Air, Powderman or Blaster, Mortar or Gypsum Machineman, Welder, Scuba Diver.

Group 7: Watchman & Tool Checker/Toolroom Man



# Prevailing Wage Rate Skilled Crafts

Name of Union: Operating Engineers - Building Local 18 - Zone III

Change # : LCN01-2021sksLoc18zone3

Craft : Operating Engineer Effective Date : 08/13/2021 Last Posted : 08/13/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Group A	\$39.14		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$55.09	\$74.66
Group B	\$39.02		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$54.97	\$74.48
Group C	\$37.98		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.93	\$72.92
Group D	\$36.80		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$52.75	\$71.15
Group E	\$31.34		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$47.29	\$62.96
Master Mechanic	\$39.39		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$55.34	\$75.03
Cranes 150'-180'	\$39.64		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$55.59	\$75.41
Cranes 180'-249'	\$40.14		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$56.09	\$76.16
Cranes 249' and over	\$40.39		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$56.34	\$76.53
<b>Apprentice</b>	<b>Percent</b>											
1st Year	50.00	\$19.57	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$35.52	\$45.31
2nd Year	60.00	\$23.48	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$39.43	\$51.18
3rd Year	70.00	\$27.40	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$43.35	\$57.05
4th Year	80.00	\$31.31	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$47.26	\$62.92
Field Mechanic Trainee			\$8.76	\$6.25	\$0.85			\$0.09				
1st Year	50.00	\$19.57	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$35.52	\$45.31
2nd Year	60.00	\$23.48	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$39.43	\$51.18
3rd Year	70.00	\$27.40	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$43.35	\$57.05
4th Year	80.00	\$31.31	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$47.26	\$62.92

**Special Calculation Note : Other: Education & Safety \$0.09**

**Ratio :**

For every (3) Operating Engineer Journeymen employed by the company there may be employed (1) Registered Apprentice or trainee Engineer through the

**Jurisdiction (\* denotes special jurisdictional note) :**

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT,

referral when they are available. An apprentice, while employed as part of a crew per Article VIII, paragraph 78, will not be subject to the apprenticeship ratios in this collective bargaining agreement

CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WYANDOT

### **Special Jurisdictional Note :**

#### **Details :**

Note: There will be a 10% increase for the apprentices on top of the percentages listed above provided they are operating mobile equipment. Mechanic Trainees will receive 10% increase if required to have CDL

Group A- Barrier Moving Machines; Boiler Operators or Compressor Operators, when compressor or boiler is mounted on crane (Piggyback Operation); Boom Trucks (all types); Cableways Cherry Pickers; Combination - Concrete Mixers & Towers; All Concrete Pumps with Booms; Cranes (all types); Compact Cranes, track or rubber over 4,000 pounds capacity; Cranes self-erecting, stationary, track or truck (all configurations); Derricks (all types); Draglines; Dredges (dipper, clam or suction) 3-man crew; Elevating Graders or Euclid Loaders; Floating Equipment; Forklift (rough terrain with winch/hoist); Gradalls; Helicopter Operators, hoisting building materials; Helicopter Winch Operators, Hoisting building materials; Hoes (All types); Hoists (with two or more drums in use); Horizontal Directional Drill; Hydraulic Gantry (lift system); Laser Finishing Machines; Laser Screed and like equipment; Lift Slab or Panel Jack Operators; Locomotives (all types); Maintenance Operator/Technician(Mechanic Operator/Technician and/or Welder); Mixers, paving (multiple drum); Mobile Concrete Pumps, with booms; Panelboards, (all types on site); Pile Drivers; Power Shovels; Prentice Loader; Rail Tamper (with automatic lifting and aligning device); Rotary Drills (all), used on caissons for foundations and sub-structure; Side Booms; Slip Form Pavers; Straddle Carriers (Building Construction on site); Trench Machines (over 24" wide); Tug Boats.

Group B - Articulating/end dumps (minus \$4.00/hour from Group B rate); Asphalt Pavers; Bobcat-type and/or skid steer loader with hoe attachment greater than 7000 lbs.; Bulldozers; CMI type Equipment; Concrete Saw, Vermeer-type; Endloaders; Hydro Milling Machine; Kolman-type Loaders (Dirt Loading); Lead Greasemen; Mucking Machines; Pettibone-Rail Equipment; Power Graders; Power Scoops; Power Scrapers; Push Cats;, Rotomills (all), grinders and planers of all types.

Group C - A-Frames; Air Compressors, Pressurizing Shafts or Tunnels; All Asphalt Rollers; Bobcat-type and/or Skid Steer Loader with or without attachments; Boilers (15 lbs. pressure and over); All Concrete Pumps (without booms with 5 inch system); Fork Lifts (except masonry); Highway Drills - all types (with integral power); Hoists (with one drum); House Elevators (except those automatic call button controlled), Buck Hoists, Transport Platforms, Construction Elevators; Hydro Vac/Excavator (when a second person is needed, the rate of pay will be "Class E"); Man Lifts; Material hoist/elevators; Mud Jacks; Pressure Grouting; Pump Operators (installing or operating Well Points or other types of Dewatering Systems); Pumps (4 inches and over discharge); Railroad Tie (Inserter/Remover); Rotovator (Lime-Soil Stabilizer); Submersible Pumps (4"and over discharge); Switch & Tie Tampers (without lifting and aligning device); Trench Machines (24" and under); Utility Operators.

Group D - Backfillers and Tampers; Ballast Re-locator; Batch Plant Operators; Bar and Joint Installing

Machines; Bull Floats; Burlap and Curing Machines; Clefplanes; Compressors, on building construction; Concrete Mixers, more than one bag capacity; Concrete Mixers, one bag capacity (side loaders); All Concrete Pumps (without boom with 4" or smaller system); Concrete Spreader; Conveyors, used for handling building materials; Crushers; Deckhands; Drum Fireman (in asphalt plants); Farm type tractors pulling attachments; Finishing Machines; Form Trenchers; Generators; Gunite Machines; Hydro-seeders; Pavement Breakers (hydraulic or cable); Post Drivers; Post Hole Diggers; Pressure Pumps (over 1/2") discharge); Road Widening Trenchers; Rollers (except asphalt); Self-propelled sub-graders; Shotcrete Machines; Tire Repairmen; Tractors, pulling sheepsfoot post roller or grader; VAC/ALLS; Vibratory Compactors, with integral power; Welders.

Group E – Allen Screed Paver (concrete); Boilers (less than 15 lbs. pressure); Cranes-Compact, track or rubber (under 4,000 pounds capacity); Directional Drill "Locator"; Fueling and greasing +\$3.00; Inboard/outboard Motor Boat Launches; Light Plant Operators; Masonry Fork Lifts; Oilers/Helpers; Power Driven Heaters (oil fired); Power Scrubbers; Power Sweepers; Pumps (under 4 inch discharge); Signalperson, Submersible Pumps (under 4" discharge).

Master Mechanics - Master Mechanic

Cranes 150' – 180' - Boom & Jib 150 - 180 feet

Cranes 180' – 249' - Boom & Jib 180 - 249 feet

Cranes 250' and over - Boom & Jib 250-feet or over

# Prevailing Wage Rate Skilled Crafts

Name of Union: Operating Engineers - HevHwy Zone II

Change # : LCN01-2021sksLoc18hevhwyl

Craft : Operating Engineer Effective Date : 08/13/2021 Last Posted : 08/13/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
<b>Classification</b>												
Class A	\$39.14		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$55.09	\$74.66
Class B	\$39.02		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$54.97	\$74.48
Class C	\$37.98		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$53.93	\$72.92
Class D	\$36.80		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$52.75	\$71.15
Class E	\$31.34		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$47.29	\$62.96
Master Mechanic	\$39.39		\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$55.34	\$75.03
<b>Apprentice</b>												
	<b>Percent</b>											
1st Year	50.00	\$19.57	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$35.52	\$45.31
2nd Year	60.00	\$23.48	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$39.43	\$51.18
3rd Year	70.00	\$27.40	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$43.35	\$57.05
4th Year	80.00	\$31.31	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$47.26	\$62.92
<b>Field Mech Trainee Class 2</b>												
1st year	50.00	\$19.57	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$35.52	\$45.31
2nd year	60.00	\$23.48	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$39.43	\$51.18
3rd year	70.00	\$27.40	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$43.35	\$57.05
4th year	80.00	\$31.31	\$8.76	\$6.25	\$0.85	\$0.00	\$0.00	\$0.09	\$0.00	\$0.00	\$47.26	\$62.92

**Special Calculation Note :** Other: Education & Safety Fund is \$0.09 per hour.

**Ratio :**

For every (3) Operating Engineer Journeymen employed by the company, there may be employed (1) Registered Apprentice or Trainee Engineer through the referral when they are available. An Apprentice, while employed as part of a crew per Article VIII, paragraph 65 will not be subject to the apprenticeship ratios in this collective bargaining agreement

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS,

MADISON, MARION, MEIGS, MERCER, MIAMI,  
MONROE, MONTGOMERY, MORGAN, MORROW,  
MUSKINGUM, NOBLE, OTTAWA, PAULDING,  
PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM,  
RICHLAND, ROSS, SANDUSKY, SCIOTO,  
SENECA, SHELBY, STARK, TUSCARAWAS,  
UNION, VAN WERT, VINTON, WARREN,  
WASHINGTON, WAYNE, WILLIAMS, WOOD,  
WYANDOT

## **Special Jurisdictional Note :**

### **Details :**

\*\*Apprentices will receive a 10% increase on top of the percentages listed above provided they are operating mobile equipment. Mechanic Trainees will receive 10% increase if they are required to have CDL.

Class A - Air Compressors on Steel Erection; Asphalt Plant Engineers (Cleveland District Only); Barrier Moving Machine; Boiler Operators, Compressor Operators, or Generators, when mounted on a rig; Boom Trucks (all types); Cableways; Cherry Pickers; Combination- Concrete Mixers & Towers; Concrete Plants (over 4 yd capacity); Concrete Pumps; Cranes (all types); Compact Cranes track or rubber over 4,000 pounds capacity; Cranes self-erecting stationary, track or truck; Derricks (all types); Draglines; Dredges dipper, clam or suction; Elevating Graders or Euclid Loaders; Floating Equipment (all types); Gradalls; Helicopter Crew (Operator- hoist or winch); Hoes (all types); Hoisting Engines; Hoisting Engines, on shaft or tunnel work; Hydraulic Gantry (lifting system); Industrial-type Tractors; Jet Engine Dryer (D8 or D9) diesel Tractors; Locomotives (standard gauge); Maintenance Operators/Technicians (class A); Mixers, paving (single or double drum); Mucking Machines; Multiple Scrapers; Piledriving Machines (all types); Power Shovels, Prentice Loader; Quad 9 (double pusher); Rail Tamper (with automatic lifting and aligning device); Refrigerating Machines (freezer operation); Rotary Drills, on caisson work; Rough Terrain Fork Lift with winch/hoist; Side Booms; Slip Form Pavers; Survey Crew Party Chiefs; Tower Derricks; Tree Shredders; Trench Machines (over 24" wide); Truck Mounted Concrete Pumps; Tug Boats; Tunnel Machines and /or Mining Machines; Wheel Excavators.

Class B - Asphalt Pavers; Automatic Subgrade Machines, self-propelled (CMI-type); Bobcat-type and /or Skid Steer Loader with hoe attachment greater than 7000 lbs.; Boring Machine Operators (more than 48 inches); Bulldozers; Concrete Saws, Vermeer type; Endloaders; Horizontal Directional Drill (50,000 ft. lbs. thrust and over); Hydro Milling Machine; Kolman-type Loaders (production type-dirt); Lead Greasemen; Lighting and Traffic Signal Installation Equipment includes all groups or classifications; Maintenance Operators/Technicians, Class B; Material Transfer Equipment (shuttle buggy) Asphalt; Pettibone-Rail Equipment; Power Graders; Power Scrapers; Push Cats; Rotomills (all), Grinders and Planners of all types, Groovers (excluding walk-behinds); Trench Machines (24 inch wide and under).

Class C - A-Frames; Air Compressors, on tunnel work (low Pressure); Articulating/straight bed end dumps if assigned (minus \$4.00 per hour); Asphalt Plant Engineers (Portage and Summit Counties only); Bobcat-type and/or skid steer loader with or without attachments; Drones; Highway Drills (all types); HydroVac/Excavator (when a second person is needed, the rate of pay will be "Class E"); Locomotives (narrow gauge); Material Hoist/Elevators; Mixers, concrete (more than one bag capacity); Mixers, one bag capacity (side loader); Power Boilers (over 15 lbs. pressure); Pump Operators (installing or operating well Points); Pumps (4 inch and over discharge); Railroad Tie Inserter/Remover; Rollers, Asphalt; Rotovator (lime-soil Stabilizer); Switch & Tie Tampers (without lifting and aligning device); Utilities Operators, (small equipment); Welding Machines and Generators.

Class D – Backfillers and Tampers; Ballast Re-locator; Bar and Joint Installing Machines; Batch Plant Operators; Boring Machine Operators (48 inch or less); Bull Floats; Burlap and Curing Machines; Concrete Plants (capacity 4 yds. and under); Concrete Saws (multiple); Conveyors (highway); Crushers; Deckhands; Farm type tractors, with attachments (highway); Finishing Machines; Firemen, Floating Equipment (all types); Fork Lifts (highway), except masonry; Form Trenchers; Hydro Hammers; Hydro Seeders; Pavement Breakers (hydraulic or cable); Plant Mixers; Post Drivers; Post Hole Diggers; Power Brush Burners; Power Form

Handling Equipment; Road Widening Trenchers; Rollers (brick, grade, macadam); Self-Propelled Power Spreaders; Self-Propelled Sub-Graders; Steam Firemen; Survey Instrument men; Tractors, pulling sheepsfoot rollers or graders; Vibratory Compactors, with integral power.

Class E - Compressors (portable, Sewer, Heavy and Highway); Cranes-Compact, track or rubber under 4,000 pound capacity; Drum Firemen (asphalt plant); Fueling and greasing (Primary Operator with Specialized CDL Endorsement Add \$3.00/hr); Generators; Inboard-Outboard Motor Boat Launches; Masonry Fork Lifts; Oil Heaters (asphalt plant); Oilers/Helpers; Power Driven Heaters (oil fired); Power Scrubbers; Power Sweepers; Pumps (under 4 inch discharge); Signalperson; Survey Rodmen or Chairmen; Tire Repairmen; VAC/ALLS.  
Master Mechanic - Master Mechanic

# Prevailing Wage Rate Skilled Crafts

Name of Union: Painter Locals 123 & 238

Change # : LCR01-2021fbLoc123-238

Craft : Drywall Finisher Effective Date : 05/01/2021 Last Posted : 04/21/2021

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Painter Drywall Finisher	\$25.89	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.85	\$50.80
Tapers and Finishers	\$25.89	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.85	\$50.80
Apprentice											
1st Year	\$14.83	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23.23	\$30.64
2nd Year	\$17.63	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$26.03	\$34.85
3rd Year	\$20.43	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28.83	\$39.05
4th Year	\$21.84	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30.24	\$41.16

**Special Calculation Note :** Apprentices shall be paid the proper % of the classification above.

**Ratio :**

1 Journeyman to 1 Apprentice per job

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BROWN, BUTLER, CLERMONT, CLINTON, HAMILTON, WARREN

**Special Jurisdictional Note :**

**Details :**

Industrial Work paid as commercial work above for each class which includes, Industrial Plants, repair garages, processing plants, storage tanks, warehouses, skeletons structures, bridges unless highest point of clearance is 60 feet or more whether new or old construction offices and office buildings in industrial sites are at industrial rates. Heavy & Highway Bridges-GuardRails- Light Poles. A hazardous steeplejack rate shall apply on radio towers, stacks, light towers, water towers, steeples, skeleton steel, and exterior industrial conveyors over 25 feet, where such items require steeplejack methods and the rate of pay shall be a \$1.00 per hour above the industrial rate. Steeplejack rate to apply to bridges where highest point of clearance is 60 feet.

# Prevailing Wage Rate Skilled Crafts

**Name of Union: Painter Locals 123 & 238  
Commercial & Industrial**

**Change # : LCR01-2021fbLoc123**

**Craft : Painter Effective Date : 05/01/2021 Last Posted : 04/21/2021**

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Painter Brush Roll	\$25.89	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.85	\$50.80
Paper Hanger	\$25.89	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.85	\$50.80
Spray Painter	\$26.39	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.35	\$51.55
Sand Blaster Water Blaster	\$26.64	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.60	\$51.92
Elevated Tanks	\$26.89	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.85	\$52.30
Apprentice											
1st Year	\$14.82	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23.22	\$30.63
2nd Year	\$17.63	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$26.03	\$34.85
3rd Year	\$20.43	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28.83	\$39.05
4th Year	\$21.84	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30.24	\$41.16

**Special Calculation Note :** Apprentices shall be paid the proper % of the classification above.

**Ratio :**

(1) Journeymen to (1) Apprentice per jobsite

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BROWN, BUTLER, CLERMONT, CLINTON, HAMILTON, WARREN

**Special Jurisdictional Note :**

**Details :**

Industrial Work paid as commercial work above for each class which includes, Industrial Plants, repair garages, processing plants, storage tanks, warehouses, skeletons structures, bridges unless highest point of clearance is 60 feet or more whether new or old construction offices and office buildings in industrial sites are at industrial rates. Heavy & Highway Bridges-Guard Rails- Light Poles. A hazardous steeplejack rate shall apply on radio towers, stacks, light towers, water towers, steeples, skeleton steel, and exterior industrial conveyors over 25 feet, where such items require steeplejack methods and the rate of pay shall be a \$1.00 per hour above the industrial rate. Steeplejack rate to apply to bridges where highest point of clearance is 60 feet.



# Prevailing Wage Rate Skilled Crafts

Name of Union: Painter Local 123 & 238 Hvy Hwy

Change # : LCR01-2021fbLoc123

Craft : Painter Effective Date : 05/01/2021 Last Posted : 04/21/2021

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Painter Bridge Class 1	\$36.28	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$48.24	\$66.38
Bridge Painter, Rigger, Containment Builder, Spot Blaster Class 2	\$29.28	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.24	\$55.88
Equipment Operator/Field Mechanic, Grit Reclamation, Paint Mixer, Traffic Control, Boat Person Class 3	\$29.28	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.24	\$55.88
Concrete Sealing, Concrete Blasting/Power Washing, Etc. Class 4	\$29.28	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.24	\$55.88
Quality Control/Quality Assurance, Traffic Safety, Competent Person Class 5	\$29.28	\$5.79	\$5.86	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.24	\$55.88
Apprentice											
1st Year	\$20.58	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28.98	\$39.27
2nd Year	\$24.21	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.61	\$44.71
3rd Year	\$27.84	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$36.24	\$50.16
4th Year	\$29.65	\$5.79	\$2.30	\$0.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$38.05	\$52.87

**Special Calculation Note :** Apprentices shall be paid proper % of the classification above..

**Ratio :**

1 Journeyman to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BROWN, BUTLER, CLERMONT, CLINTON, HAMILTON, WARREN

## **Special Jurisdictional Note :**

### **Details :**

Industrial Work paid as commercial work above for each class which includes, Industrial Plants, repair garages, processing plants, storage tanks, warehouses, skeletons structures, bridges unless highest point of clearance is 60 feet or more whether new or old construction offices and office buildings in industrial sites are at industrial rates. Heavy & Highway Bridges-Guard Rails- Light Poles. A hazardous steeplejack rate shall apply on radio towers, stacks, light towers, water towers, steeples, skeleton steel, and exterior industrial conveyors over 25 feet, where such items require steeplejack methods and the rate of pay shall be a \$1.00 per hour above the industrial rate. Steeplejack rate to apply to bridges where highest point of clearance is 60 feet.

Class 1 – Abrasive blasting of any kind.

Class 2 – Bridge painting, coating application of any kind. All steel surface preparation other than abrasive blasting. All necessary rigging and containment building. All remedial/ spot blasting.

Class 3 – Tend to all equipment including but not limited to abrasive basting, power washing, spray painting, forklifts, hoists, trucks, etc. Load and unload trucks, handle materials, man safety boats, handle traffic control, clean up/ vacuum abrasive blast materials and related tasks.

Class 4 – All aspects of concrete coating/ sealing including but not limited to preparation, containment, etc.

Class 5 – Verify and record that all work is completed according to job specifications. Assure that all health and safety standards are adhered to. Assure all traffic is safely handled.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Painter Local 639

Change # : LCNO1-2015fbLoc639

Craft : Painter Effective Date : 06/10/2015 Last Posted : 06/10/2015

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
<b>Classification</b>											
Painter Metal Finisher/Helpers											
Top Helper Class A	\$19.09	\$3.65	\$0.00	\$0.00	\$0.66	\$0.00	\$0.00	\$0.00	\$0.00	\$23.40	\$32.94
Top Helper Class B	\$19.09	\$3.65	\$0.65	\$0.00	\$1.03	\$0.00	\$0.37	\$0.00	\$0.00	\$24.79	\$34.33
Top Helper Class C	\$19.09	\$3.65	\$1.00	\$0.00	\$1.76	\$0.00	\$0.37	\$0.00	\$0.00	\$25.87	\$35.41
Helper Class A	\$14.69	\$3.65	\$0.00	\$0.00	\$0.51	\$0.00	\$0.00	\$0.00	\$0.00	\$18.85	\$26.19
Helper Class B	\$14.69	\$3.65	\$0.65	\$0.00	\$0.79	\$0.00	\$0.28	\$0.00	\$0.00	\$20.06	\$27.40
Helper Class C	\$14.69	\$3.65	\$1.00	\$0.00	\$1.64	\$0.00	\$0.28	\$0.00	\$0.00	\$21.26	\$28.60
New Hire 90 Days	\$11.00	\$3.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$14.65	\$20.15

**Special Calculation Note :** Other is Sick and Personal Time

**Ratio :**

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, CUYAHOGA, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GEauga, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAKE, LAWRENCE, LICKING, LOGAN, LORAIN, LUCAS, MADISON, MAHONING, MARION, MEDINA, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY,

SCIOTO, SENECA, SHELBY, STARK, SUMMIT,  
TRUMBULL, TUSCARAWAS, UNION, VAN  
WERT, VINTON, WARREN, WASHINGTON,  
WAYNE, WILLIAMS, WOOD, WYANDOT

**Special Jurisdictional Note :**

**Details :**

Top Helper: Shall perform the responsibilities of a Helper and be responsible for the setup, break down, safety and quality of the company's product.

Helper : Shall be responsible for performing tasks in refinishing, compliance with safety procedures, setting up and breaking down job sites, scaffolding and swing stages and preparing surfaces for refinishing including but not limited to, masking and stripping and cleaning, oxidizing, polishing and scratch removal on various surfaces

Class A Workers: Less than 1 Year of Service.

Class B Workers: More than 1 and less than 8 Years of Service.

Class C Workers: More than 8 Years of Service.

Metal Polisher Scope of Work: Polishing, buffing, stripping, coloring, lacquering, spraying, cleaning and maintenance of ornamental and architectural metals, iron, bronze, nickel, aluminum and stainless steel and in mental specialty work, various stone finishes, stone specialty work and any other work pertaining to the finishing of metal, stones, woods, and any window washing/cleaning done in conjunction with this work, using chemicals, solvents, coatings and hand applied lacquer thinner, removing scratches from mirror finished metals, burnishing of bronze, statuary finishes on exterior and interior surfaces and the use of all tools required to perform such work, including but not limited to polishes, spray equipment and scaffolding.

Swing State Rate: All work on scaffold 4 sections or higher, including any boom lifts and swing stage scaffolds including the rigging and derigging of hanging/suspended swing stage systems and rappelling/bolson chair work, ADD \$1.50 per hour.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Painter Local 639 Zone 2 Sign

Change # : LCN01-2016fbLoc639

Craft : Painter Effective Date : 08/03/2016 Last Posted : 08/03/2016

	BHR	Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
		H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification											
Painter Sign Journeyman Tech/Team Leader Class A	\$21.25	\$1.33	\$0.14	\$0.00	\$0.00	\$0.00	\$0.57	\$0.00	\$0.00	\$23.29	\$33.92
Painter Sign Journeyman Tech/Team Leader Class B	\$21.25	\$1.33	\$0.14	\$0.00	\$0.41	\$0.00	\$0.57	\$0.00	\$0.00	\$23.70	\$34.32
Painter Sign Journeyman Tech/Team Leader Class C	\$21.25	\$1.33	\$0.14	\$0.00	\$0.82	\$0.00	\$0.57	\$0.00	\$0.00	\$24.11	\$34.74
Painter Sign Journeyman Tech/Team Leader Class D	\$21.25	\$1.33	\$0.14	\$0.00	\$1.23	\$0.00	\$0.57	\$0.00	\$0.00	\$24.52	\$35.14
Sign Journeyman Class A	\$20.98	\$1.33	\$0.14	\$0.00	\$0.00	\$0.00	\$0.56	\$0.00	\$0.00	\$23.01	\$33.50
Sign Journeyman Class B	\$20.98	\$1.33	\$0.14	\$0.00	\$0.40	\$0.00	\$0.56	\$0.00	\$0.00	\$23.41	\$33.90
Sign Journeyman Class C	\$20.98	\$1.33	\$0.14	\$0.00	\$0.81	\$0.00	\$0.56	\$0.00	\$0.00	\$23.82	\$34.31
Sign Journeyman Class D	\$20.98	\$1.33	\$0.14	\$0.00	\$1.21	\$0.00	\$0.56	\$0.00	\$0.00	\$24.22	\$34.71
Tech Sign Fabrication/Erector Class A	\$15.90	\$1.33	\$0.14	\$0.00	\$0.00	\$0.00	\$0.43	\$0.00	\$0.00	\$17.80	\$25.75
Tech Sign Fabrication/Erector Class B	\$15.90	\$1.33	\$0.14	\$0.00	\$0.31	\$0.00	\$0.43	\$0.00	\$0.00	\$18.11	\$26.06
Tech Sign Fabrication/Erector Class C	\$15.90	\$1.33	\$0.14	\$0.00	\$0.61	\$0.00	\$0.43	\$0.00	\$0.00	\$18.41	\$26.36
Tech Sign Fabrication/Erector Class D	\$15.90	\$1.33	\$0.14	\$0.00	\$0.92	\$0.00	\$0.43	\$0.00	\$0.00	\$18.72	\$26.67

**Special Calculation Note :** Other is for paid holidays.

**Ratio :**

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ALLEN, AUGLAIZE, BROWN, BUTLER,  
CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON,  
COLUMBIANA, COSHOCTON, CRAWFORD, DARKE,  
DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE,  
FRANKLIN, FULTON, GREENE, HAMILTON, HANCOCK,  
HARDIN, HENRY, HIGHLAND, HOLMES, HURON,  
JACKSON, KNOX, LICKING, LOGAN, LORAIN, LUCAS,  
MADISON, MAHONING, MARION, MERCER, MIAMI,  
MONTGOMERY, MORROW, MUSKINGUM, OTTAWA,  
PAULDING, PERRY, PICKAWAY, PIKE, PREBLE,  
PUTNAM, ROSS, SANDUSKY, SCIOTO, SENECA,  
SHELBY, STARK, TRUMBULL, TUSCARAWAS, UNION,  
VAN WERT, WARREN, WAYNE, WILLIAMS, WOOD,  
WYANDOT

**Special Jurisdictional Note :**

**Details :**

Class A: less than 1 year.

Class B: 1-3 years.

Class C: 3-10 years.

Class D: More than 10 years.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Plasterer Local 132 (Cincinnati)

Change # : LCN02-2021fbLoc132

Craft : Plasterer Effective Date : 07/14/2021 Last Posted : 07/14/2021

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Plasterer	\$26.65		\$5.80	\$8.25	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$42.40	\$55.72
<b>Apprentice</b>	<b>Percent</b>											
1st 900 hours	70.00	\$18.65	\$5.80	\$0.00	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$26.15	\$35.48
2nd 900 hours	74.00	\$19.72	\$5.80	\$0.00	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$27.22	\$37.08
3rd 900 hours	78.00	\$20.79	\$5.80	\$7.25	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$35.54	\$45.93
4th 900 hours	82.00	\$21.85	\$5.80	\$7.25	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$36.60	\$47.53
5th 900 hours	86.00	\$22.92	\$5.80	\$7.25	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$37.67	\$49.13
6th 900 hours	90.00	\$23.98	\$5.80	\$7.25	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$38.74	\$50.73
7th 900 hours	94.00	\$25.05	\$5.80	\$7.25	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$39.80	\$52.33
8th 900 hours	98.00	\$26.12	\$5.80	\$7.25	\$0.70	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$40.87	\$53.93

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

**Ratio :**

- 1 Journeyman to 1 Apprentice
- 4 Journeyman to 2 Apprentice
- 7 Journeyman to 3 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN

**Special Jurisdictional Note :**

**Details :**

Apprentice and Shop Hand Pension are \$1.00 less than Journeyman.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Plumber Pipefitter Local 392

Change # : LCR01-2022sksLoc392

Craft : Plumber/Pipefitter Effective Date : 02/16/2022 Last Posted : 02/16/2022

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Plumber Pipefitter	\$35.01		\$8.58	\$13.59	\$0.54	\$0.00	\$0.00	\$0.48	\$0.00	\$0.00	\$58.20	\$75.71
Plumber Helper	\$21.33		\$7.30	\$6.59	\$0.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.72	\$46.38
Apprentice	Percent											
1st yr	45.00	\$15.75	\$8.38	\$0.95	\$0.54	\$0.00	\$0.00	\$0.48	\$0.00	\$0.00	\$26.10	\$33.98
2nd yr	50.02	\$17.51	\$8.38	\$0.95	\$0.54	\$0.00	\$0.00	\$0.48	\$0.00	\$0.00	\$27.86	\$36.62
3rd yr	55.00	\$19.26	\$8.38	\$7.47	\$0.54	\$0.00	\$0.00	\$0.48	\$0.00	\$0.00	\$36.13	\$45.75
4th yr	60.00	\$21.01	\$8.38	\$7.47	\$0.54	\$0.00	\$0.00	\$0.48	\$0.00	\$0.00	\$37.88	\$48.38
5th yr	75.00	\$26.26	\$8.38	\$13.59	\$0.54	\$0.00	\$0.00	\$0.48	\$0.00	\$0.00	\$49.25	\$62.38

**Special Calculation Note : OTHER IS: SUPPLEMENTAL UNEMPLOYMENT BENEFITS.**

**Ratio :**

- 1 Journeymen to 1 Apprentice
- 4 Journeymen to 2 Apprentices
- 6 Journeymen to 3 Apprentices
- 10 Journeymen to 4 Apprentices
- 16 Journeymen to 5 Apprentices

When more than Sixteen (16) Journeymen are employed additional apprentices may be acquired at a ratio of one (1) apprentice to four (4) journeymen.

**Special Jurisdictional Note :**

**Details :**

Helpers shall be permitted to work on ONLY , Exterior Sewers, Concrete, Vitrified Clay or PVC Pipe and Digging and Backfilling for Piping Work. The ratio shall not exceed 2 helpers to 1 Journeymen when performing the scope of work listed above

**Jurisdiction ( \* denotes special jurisdictional note ) :**  
BROWN, BUTLER, CLERMONT, HAMILTON, WARREN



# Prevailing Wage Rate Skilled Crafts

Name of Union: Roofer Local 42

Change # : LCNO1-2021sksLoc42

Craft : Roofer Effective Date : 12/15/2021 Last Posted : 12/15/2021

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)			MISC (*)
Classification												
Roofer	\$28.85		\$8.02	\$7.95	\$0.32	\$0.00	\$1.25	\$0.06	\$0.00	\$0.00	\$46.45	\$60.88
Tradesmen	\$23.08		\$8.02	\$6.36	\$0.00	\$0.00	\$1.25	\$0.03	\$0.00	\$0.00	\$38.74	\$50.28
Apprentice	Percent											
1st period	60.00	\$17.31	\$8.02	\$4.77	\$0.03	\$0.00	\$1.25	\$0.00	\$0.00	\$0.00	\$31.38	\$40.03
2nd period	70.00	\$20.19	\$8.02	\$5.56	\$0.03	\$0.00	\$1.25	\$0.00	\$0.00	\$0.00	\$35.06	\$45.15
3rd period	80.00	\$23.08	\$8.02	\$6.36	\$0.03	\$0.00	\$1.25	\$0.00	\$0.00	\$0.00	\$38.74	\$50.28

**Special Calculation Note :** Other is for Training Fund

**Ratio :**

Employer may employ 1 apprentice for every 2 journeymen in his employment.

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN

**Special Jurisdictional Note :**

**Details :**

Any Tradesman Worker completing 2,000 hours in (2) years may move to Journeyman status by utilizing the Training Yard to improve their skills. Tradesman Workers will be tested at these yards to determine their competency for Journeyman status. Tradesman Workers must schedule and successfully complete the industry test battery in order to gain journeyman status.

# Prevailing Wage Rate Skilled Crafts

Name of Union: Sheet Metal Local 24 (Dayton)

Change # : LCR01-2021fbLoc24(Day)

Craft : Sheet Metal Worker Effective Date : 07/14/2021 Last Posted : 07/14/2021

	BHR		Fringe Benefit Payments						Irrevocable Fund		Total PWR	Overtime Rate
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Sheet Metal Worker	\$29.30		\$9.00	\$15.00	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$54.15	\$68.80
Apprentice	Percent											
Apprentice												
5th Year B	85.00	\$24.91	\$8.76	\$11.51	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$46.03	\$58.48
5th Year A	80.00	\$23.44	\$8.68	\$10.35	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.32	\$55.04
4th Year B	75.00	\$21.98	\$8.60	\$9.18	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40.61	\$51.59
4th Year A	70.00	\$20.51	\$8.52	\$8.03	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$37.91	\$48.17
3rd year B	65.00	\$19.05	\$8.45	\$6.85	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$35.20	\$44.72
3rd Year A	60.00	\$17.58	\$8.37	\$5.69	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.49	\$41.28
2 Year B	57.52	\$16.85	\$8.33	\$5.11	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$31.14	\$39.57
2 Year A	55.00	\$16.12	\$8.29	\$4.52	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$29.78	\$37.83
Probationary 1 Year	52.50	\$15.38	\$8.25	\$3.95	\$0.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28.43	\$36.12

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

**Ratio :**

1 Journeyman to 1 Apprentice then,  
1 Apprentice for every 2 Journeymen thereafter

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ALLEN, AUGLAIZE, BUTLER, CHAMPAIGN,  
CLARK, CLINTON, DARKE, GREENE, HARDIN,  
LOGAN, MERCER, MIAMI, MONTGOMERY,  
PREBLE, SHELBY, VAN WERT, WARREN,  
WYANDOT

**Special Jurisdictional Note :**

**Details :**

MUSKINGUM, NOBLE, OTTAWA, PAULDING,  
PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE,  
PUTNAM, RICHLAND, ROSS, SANDUSKY,  
SCIOTO, SENECA, SHELBY, STARK, SUMMIT,  
TRUMBULL, TUSCARAWAS, UNION, VAN WERT,  
VINTON, WARREN, WASHINGTON, WAYNE,  
WILLIAMS, WOOD, WYANDOT

**Special Jurisdictional Note :**

**Details :**

Sprinkler Fitter work shall consist of the installation, dismantling, maintenance, repairs, adjustments, and corrections of all fire protection and fire control systems including the unloading, handling by hand, power equipment and installation of all piping or tubing, appurtenances and equipment pertaining thereto, including both overhead and underground water mains, fire hydrants and hydrant mains, standpipes and hose connections to sprinkler systems used in connection with sprinkler and alarm systems. Also all tanks and pumps connected thereto, also included shall be CO-2 and Cardox Systems, Dry Chemical Systems, Foam Systems and all other fire protection systems.

# Prevailing Wage Rate Skilled Crafts

**Name of Union: Truck Driver Bldg & Hwy Class 1  
Locals 20,40,92,92b,100,175,284,438,377,637,908,957**

**Change # : LCRO1-2021fbBldgHwy**

**Craft : Truck Driver Effective Date : 05/21/2021 Last Posted : 05/21/2021**

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
Classification												
Truck Driver CLASS 1 4 wheel service, dump, and batch trucks, Oil Distributor - Asphalt Distributor-Tandems	\$29.24		\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$45.44	\$60.06
Apprentice	Percent											
First 6 months	80.00	\$23.39	\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.59	\$51.29
7-12 months	85.00	\$24.85	\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.05	\$53.48
13-18 months	90.00	\$26.32	\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$42.52	\$55.67
19-24 months	95.00	\$27.78	\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$43.98	\$57.87
25-30 months	100.00	\$29.24	\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$45.44	\$60.06

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

**Ratio :**

3 Journeymen to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ALLEN, ASHLAND, ASHTABULA, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COLUMBIANA, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, ERIE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE,

GUERNSEY, HAMILTON, HANCOCK, HARDIN,  
HARRISON, HENRY, HIGHLAND, HOCKING,  
HOLMES, HURON, JACKSON, JEFFERSON,  
KNOX, LAWRENCE, LICKING, LOGAN, LORAIN,  
LUCAS, MADISON, MAHONING, MARION,  
MEDINA, MEIGS, MERCER, MIAMI, MONROE,  
MONTGOMERY, MORGAN, MORROW,  
MUSKINGUM, NOBLE, OTTAWA, PAULDING,  
PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE,  
PUTNAM, RICHLAND, ROSS, SANDUSKY,  
SCIOTO, SENECA, SHELBY, STARK, SUMMIT,  
TRUMBULL, TUSCARAWAS, UNION, VAN WERT,  
VINTON, WARREN, WASHINGTON, WAYNE,  
WILLIAMS, WOOD, WYANDOT

**Special Jurisdictional Note :**

**Details :**

\*\* Asphalt - Oil spray bar man when operating from cab shall receive \$0.20 cents per hour above their Basic Hourly Rate.

# Prevailing Wage Rate

## Skilled Crafts

**Name of Union: Truck Driver Bldg & Hwy Class 2**  
**Locals 20,40,92,92b,100,175,284,438,377,637,908,957**

**Change # : LCRO1-2021fbBldgHwy**

**Craft : Truck Driver Effective Date : 05/21/2021 Last Posted : 05/21/2021**

	BHR		Fringe Benefit Payments					Irrevocable Fund		Total PWR	Overtime Rate	
			H&W	Pension	App Tr.	Vac.	Annuity	Other	LECET (*)	MISC (*)		
<b>Classification</b>												
Truck Driver CLASS 2 Tractor Trailer-Semi Tractor Trucks-Pole Trailers-Ready Mix Trucks-Fuel Trucks- Asphalt-Oil Spray bar men- 5 Axle & Over - Belly Dumps-End Dumps-Articulated Dump Trucks- Low boys-Heavy duty Equipment(irrespective of load carried) when used exclusively for transportation-Truck Mechanics (when needed)	\$29.66		\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$45.86	\$60.69
<b>Apprentice</b>	<b>Percent</b>											
First 6 months	80.00	\$23.73	\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39.93	\$51.79
7-12 months	85.00	\$25.21	\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41.41	\$54.02
13-18 months	90.00	\$26.69	\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$42.89	\$56.24
19-24 months	95.00	\$28.18	\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$44.38	\$58.47
25-30 months	100.00	\$29.66	\$7.50	\$8.50	\$0.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$45.86	\$60.69

**Special Calculation Note :** No special calculations for this skilled craft wage rate are required at this time.

**Ratio :**

3 Journeymen to 1 Apprentice

**Jurisdiction ( \* denotes special jurisdictional note ) :**

ADAMS, ALLEN, ASHLAND, ASHTABULA,  
 ATHENS, AUGLAIZE, BELMONT, BROWN,  
 BUTLER, CARROLL, CHAMPAIGN, CLARK,  
 CLERMONT, CLINTON, COLUMBIANA,  
 COSHOCTON, CRAWFORD, DARKE, DEFIANCE,  
 DELAWARE, ERIE, FAIRFIELD, FAYETTE,  
 FRANKLIN, FULTON, GALLIA, GREENE,

GUERNSEY, HAMILTON, HANCOCK, HARDIN,  
HARRISON, HENRY, HIGHLAND, HOCKING,  
HOLMES, HURON, JACKSON, JEFFERSON,  
KNOX, LAWRENCE, LICKING, LOGAN, LORAIN,  
LUCAS, MADISON, MAHONING, MARION,  
MEDINA, MEIGS, MERCER, MIAMI, MONROE,  
MONTGOMERY, MORGAN, MORROW,  
MUSKINGUM, NOBLE, OTTAWA, PAULDING,  
PERRY, PICKAWAY, PIKE, PORTAGE, PREBLE,  
PUTNAM, RICHLAND, ROSS, SANDUSKY,  
SCIOTO, SENECA, SHELBY, STARK, SUMMIT,  
TRUMBULL, TUSCARAWAS, UNION, VAN WERT,  
VINTON, WARREN, WASHINGTON, WAYNE,  
WILLIAMS, WOOD, WYANDOT

**Special Jurisdictional Note :**

**Details :**

\*\* Asphalt - Oil spray bar man when operating from cab shall receive \$0.20 cents per hour above their Basic Hourly Rate.

**SECTION 00 70 20**  
**PERMITS**

Contractor shall keep a copy of all permits at the project site throughout the duration of the work.



**SECTION 00 70 30**  
**STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT**

The Warren County Water and Sewer Department has adopted the Standard General Conditions of the Construction Contract prepared by the Engineers Joint Contract Documents Committee and issued and published by the American Consulting Engineers Council, the National Society of Professional Engineers, and the American Society of Civil Engineers. This document, contained herein, shall be made part of the Contract and shall be used during the performance of the work, except as modified by the following SECTION 00 80 10 Supplemental 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 Law.

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly By



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*a practice division of the*  
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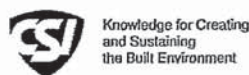
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These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor Nos. C-520 or C-525 (2002 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC Construction Documents, General and Instructions (No. C-001) (2002 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. C-800) (2002 Edition).

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## GENERAL CONDITIONS

### ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

---

#### 1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. 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 which is evidence of the agreement between Owner and Contractor covering the Work.

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. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*--The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidder*--The individual or entity who submits a Bid directly to Owner.

7. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.

9. *Change Order*--A document recommended by Engineer 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, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*-- Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. *Contract Price*--The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

15. *Contractor*--The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*--See Paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *Engineer*--The individual or entity named as such in the Agreement.

20. *Field Order*--A written order issued by Engineer which requires minor changes in the Work but which does

not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

22. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

23. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

24. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*--The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed*--A written notice given 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 under the Contract Documents.

29. *Owner*--The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. *PCBs*--Polychlorinated biphenyls.

31. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *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.

33. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Related Entity* -- An officer, director, partner, employee, agent, consultant, or subcontractor.

37. *Resident Project Representative*--The authorized representative of Engineer who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Schedule of Submittals*--A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

40. *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.

41. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

42. *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 for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.



43. *Specifications*--That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

44. *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 at the Site.

45. *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.

46. *Successful Bidder*--The Bidder submitting a responsive Bid to whom Owner makes an award.

47. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

48. *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 any Subcontractor.

49. *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 those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

50. *Unit Price Work*--Work to be paid for on the basis of unit prices.

51. *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, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

52. *Work Change Directive*--A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by

Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

## 1.02 Terminology

A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following 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 requirements of and information in the Contract Documents and conformance with the design concept of the completed 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 Paragraph 9.09 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 14.04 or 14.05).

#### 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. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.

F. Unless stated otherwise in the Contract Documents, words or phrases which 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

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### 2.01 *Delivery of Bonds and Evidence of Insurance*

A. 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 Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which

Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

### 2.02 *Copies of Documents*

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

### 2.03 *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 Agreement 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 Agreement. 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 Agreement, whichever date is earlier.

### 2.04 *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 the date on which the Contract Times commence to run.

### 2.05 *Before Starting Construction*

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), 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 Documents;

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.

### 2.06 *Preconstruction Conference*

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 2.05.A, procedures for handling Shop Drawings and other

submittals, processing Applications for Payment, and maintaining required records.

### 2.07 *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 2.05.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 component parts of the Work.

## ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, 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. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

### 3.02 *Reference Standards*

#### A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, 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, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement 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 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 Contract Documents. No such provision or instruction shall be effective to assign to Owner, or Engineer, or any of their Related Entities, 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 Contract Documents.

### 3.03 *Reporting and Resolving Discrepancies*

#### A. Reporting Discrepancies

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, 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 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

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 knew or reasonably should have known thereof.

#### B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); 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 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;
2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or
3. Engineer's written interpretation or clarification.

#### 3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, 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 Engineer's consultants, including electronic media editions; or

2. reuse any of 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 adaption by Engineer.

B. The prohibition 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.

#### 3.06 *Electronic Data*

A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

#### ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

##### 4.01 *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. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor

may make a Claim therefor as provided in Paragraph 10.05.

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 the Work is to be performed 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.

#### 4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and
2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities 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.

#### 4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed 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 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; 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 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

#### C. Possible Price and Times Adjustments

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition 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 meet any one or more of the categories described in Paragraph 4.03.A; and
- 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 Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. Contractor knew of the existence of such conditions at the time Contractor made a final 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

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or 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) sustained by Contractor on or in connection with any other project or anticipated project.

#### 4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous 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 shall not be responsible for the accuracy or completeness of any such information or data; 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 such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

#### B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, 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 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 4.05 *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.

#### 4.06 Hazardous Environmental Condition at Site

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities 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 any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) 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.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice:

(i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. 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, either party may make a Claim therefor as provided in Paragraph 10.05.

F. 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. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, 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: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, 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 created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 5 - BONDS AND INSURANCE

### 5.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish performance and payment bonds, 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 Documents. 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 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, 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 requirements of Paragraphs 5.01.B and 5.02.

### 5.02 *Licensed Sureties and Insurers*

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

### 5.03 *Certificates of Insurance*

A. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence

of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

### 5.04 *Contractor's Liability Insurance*

A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which 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:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
  - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
  - b. by any other person for any other reason;
5. 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; and
6. 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.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insured (subject to any customary exclu-



sion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, 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;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment.

a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

#### 5.05 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, 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.

#### 5.06 *Property Insurance*

A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full 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 interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, 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 caused by flood) and such other perils or causes of loss as may be specifically required by the 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; and

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 additional insured to whom a certificate of insurance has been issued.

B. Owner shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and

any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

#### 5.07 *Waiver of Rights*

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies 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 of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, 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 Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, 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 as trustee or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, 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 utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.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, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

#### 5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make

settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, 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. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 *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. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

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. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or received from the superintendent shall be binding on Contractor.

6.02 *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. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *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.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, 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.

#### 6.04 Progress Schedule

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 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 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

#### 6.05 Substitutes and "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 specification or description 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 or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. "Or-Equal" Items: If in Engineer's sole discretion 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, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, 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

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.

#### 2. Substitute Items

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.

d. 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:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;

b) whether or not 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

c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified, and

b) available engineering, sales, maintenance, repair, and replacement services;

4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change,

*B. Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

*C. Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

*D. Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

*E. Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute

item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the 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.

*F. Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

#### 6.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. 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 any right of Owner or Engineer to reject defective Work.

C. 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. 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 anything in the Contract Documents create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. 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.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, 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 such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

#### 6.07 *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, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, 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.

#### 6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, 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 opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

#### 6.09 *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 knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear 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. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on

entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 6.10 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.

#### 6.11 Use of Site and Other Areas

##### A. Limitation on Use of Site and Other Areas

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, 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 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 by or based upon Contractor's performance of the Work.

*B. Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other 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 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 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 property to stresses or pressures that will endanger it.

#### 6.12 Record Documents

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

#### 6.13 Safety and Protection

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. 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, 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 owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.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 (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or , 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).

D. Contractor's duties and responsibilities for safety and for protection of the Work 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 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

#### 6.14 *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.

#### 6.15 *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.

#### 6.16 *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.

#### 6.17 *Shop Drawings and Samples*

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

#### 1. Shop Drawings

a. Submit number of copies specified in the General Requirements.

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 6.17.D.

2. *Samples*: Contractor shall also submit Samples to Engineer for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.

a. Submit number of Samples specified in the Specifications.

b. 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 6.17.D.

B. 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. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the



requirements of the Work and the Contract Documents.

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 and approval of that 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 both a written communication separate from the Shop Drawing's or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

#### 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 (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval 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 6.17.C.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's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

#### 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.

#### 6.18 Continuing the Work

A. 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, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

#### 6.19 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 Related Entities shall be entitled to rely on representation of 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 or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

## 6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, 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 respective consultants, agents, officers, directors, partners, or employees 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 6.20.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 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, 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.

## 6.21 *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 law.

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, Shop Drawings 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 6.21, 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 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

## ARTICLE 7 - OTHER WORK AT THE SITE

### 7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and
2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. 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 their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, 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.

#### 7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
2. the specific matters to be covered by such authority and responsibility will be itemized; and
3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

#### 7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and

disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

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## ARTICLE 8 - OWNER'S RESPONSIBILITIES

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### 8.01 *Communications to Contractor*

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

### 8.02 *Replacement of Engineer*

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

### 8.03 *Furnish Data*

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

### 8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

### 8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

### 8.06 *Insurance*

A. Owner's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

### 8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

#### 8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility in respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

#### 8.09 *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.

#### 8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

#### 8.11 *Evidence of Financial Arrangements*

A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

### ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

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#### 9.01 *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 Documents and will not be changed without written consent of Owner and Engineer.

#### 9.02 *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 9.09. 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.

#### 9.03 *Project Representative*

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. 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.

#### 9.04 *Authorized Variations in Work*

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which 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. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the

Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with 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, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

A. 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 Paragraph 10.05.

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

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents 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 14.07.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 9.09 shall also apply to, the Resident Project Representative, if any, and assistants, if any.

10.01 *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 by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *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 as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.

10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
2. 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; and
3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

A. If notice 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) is required by the provisions of any bond to be given to a surety, 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.

10.05 *Claims*

A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part,
2. approve the Claim, or
3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

#### ARTICLE 11 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

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##### 11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.

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 at the Site. 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, 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 11.01.

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, 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 5.06.D), 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 telegrams, long distance telephone calls, telephone service at the Site, expresses, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

**B. 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 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which 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 Paragraphs 11.01.A and 11.01.B.

**C. Contractor's Fee:** When all the Work 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 or when a Claim for an 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 12.01.C.

**D. Documentation:** Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, 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.

#### 11.02 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

##### 1. Contractor agrees that:

a. 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

b. 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



1. 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.

#### 11.03 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. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

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. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 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; and
2. there is no corresponding adjustment with respect any other item of Work; and
3. Contractor believes that Contractor 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 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

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### 12.01 Change of Contract Price

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for 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, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* 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 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
  - b. for costs incurred under Paragraph 11.01.A.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 Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier

Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

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 12.01.C.2.a through 12.01.C.2.e, inclusive.

#### 12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

#### 12.03 *Delays*

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, 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 Price or the Contract Times, or both. 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.

C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is 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 described in this Paragraph 12.03.C.

D. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or 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) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

### ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

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#### 13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

#### 13.02 *Access to Work*

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

#### 13.03 *Tests and Inspections*

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections,

tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and
3. as otherwise specifically provided in the Contract Documents.

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 and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. 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, it must, if requested by Engineer, be uncovered for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

#### 13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, 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, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, 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 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 Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. 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, Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 13.05 *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, 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.

#### 13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. 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 removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

#### 13.07 *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 land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or
2. correct such defective Work; or
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 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. 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) will be paid by Contractor.

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 13.07, 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 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

#### 13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. 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) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

#### 13.09 *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 in accordance with Paragraph 13.06.A, 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, 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 13.09, 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, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, 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 (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) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to

an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. 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 13.09.

## ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

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### 14.01 *Schedule of Values*

A. The Schedule of Values established as provided in Paragraph 2.07.A 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.

### 14.02 *Progress Payments*

#### A. 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 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.

#### B. *Review of Applications*

1. Engineer will, within 10 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.

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 on the Site 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, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to 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 Documents; or

b. that 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 moneys 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 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

#### C. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

#### D. *Reduction in Payment*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

- a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
- b. 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;
- c. there are other items entitling Owner to a set-off against the amount recommended; or
- d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action 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, when Contractor corrects to Owner's satisfaction the reasons for such action.

3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

#### 14.03 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

#### 14.04 *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 (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

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 tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

#### 14.05 *Partial Utilization*

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. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue

a certificate of Substantial Completion for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and 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 14.04 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 5.10 regarding property insurance.

#### 14.06 *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 is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 14.07 *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, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

- a. all documentation called for in the Contract Documents, including but not limited to the

evidence of insurance required by Paragraph 5.04.B.7;

b. consent of the surety, if any, to final payment;

c. a list of all Claims against Owner that Contractor believes are unsettled; and

d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible 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.

#### 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 Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. 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 14.09. 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. Payment Becomes Due

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and, will be paid by Owner to Contractor.

#### 14.08 *Final Completion Delayed*

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

### ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

#### 15.01 *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 notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.



15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will 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 established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
3. Contractor's disregard of the authority of Engineer; or
4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion),
2. 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
3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.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 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) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed 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.

D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

E. 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. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

15.03 *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;
3. 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) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment

within 30 days after it is submitted, or (iii) 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 15.03.

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 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 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 16 - DISPUTE RESOLUTION

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### 16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or
2. agrees with the other party to submit the Claim to another dispute resolution process, or

3. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

## ARTICLE 17 - MISCELLANEOUS

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### 17.01 *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 to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or
2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

### 17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents 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.

### 17.03 *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 Documents. 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.

### 17.04 *Survival of Obligations*

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

### 17.05 *Controlling Law*

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

17.06 *Headings*

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

**SECTION 00 80 10**  
**SUPPLEMENTAL CONDITIONS**

**PART 1 GENERAL**

**1.1 GENERAL**

- A. These Supplementary Conditions shall modify and supplement the Standard General Conditions of the Construction Contract (Section 00 70 30, EJCDC C-700), and shall govern whenever they conflict. All provisions which are not so amended or supplemented remain in full force and effect.

**1.2 MODIFICATIONS TO ARTICLES OF THE GENERAL CONDITIONS**

**A. ARTICLE 1 – DEFINITIONS**

1. Paragraph 1.01.A.19 is supplemented with the following: Where the term “Engineer” is used in the Specification for the approval of materials or work, it shall be understood to mean Warren County Water & Sewer. Contractor acknowledges that Engineer is a full-time employee appointed by Owner, and Engineer is not an independent third party, rather is a department of the governmental entity of Owner (Warren County Board of Commissioners) a political subdivision of Ohio.
2. Paragraph 1.01.A.29 is supplemented with the following: Whenever the term “Owner” is used in the Contract Documents, it shall refer to Warren County Board of Commissioners on behalf of Warren County Water & Sewer, or its authorized representative.

**B. ARTICLE 2 – PRELIMINARY MATTERS**

1. Paragraph 2.03 – Commencement of Contract Time: Notice to Proceed is amended as follows: Delete the last sentence.

**C. ARTICLE 4 – AVAILABILITY OF LANDS; SURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS**

1. Paragraph 4.06(G) shall be deleted.

**D. ARTICLE 5 – BONDS AND INSURANCE**

1. Paragraph 5.01.A – Amend the second sentence to read: “ ...These bonds shall remain in effect not less than one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents ....”
2. Paragraph 5.01.D – Add the following paragraph:

“D. If the Contractor provided a certified or cashier’s check or letter of credit as Bid Security, he shall furnish a Performance Bond in an amount at least equal to 100% of the Contract Price as security for the faithful performance of this agreement.”

3. Paragraph 5.04.C – Add the following new paragraph immediately after 5.04.B:

“C. The Contractor shall, at his own expense, purchase and maintain the following minimum coverage:

1. Workers Compensation, for claims for bodily injury, sickness, disease or death as follows:
  - a. Coverage A Statutory Benefits as described by the applicable law.
  - b. Coverage B Employer’s Liability
    - i. \$500,000 Bodily Injury by Accident – each employee
    - ii. \$500,000 Bodily Injury by disease – each employee
    - iii. \$500,000 Bodily Injury by disease – policy limit

The Contractor shall provide a copy of a certificate of premium payment from the Industrial Commission and Bureau of Workers Compensation, State of Ohio, for the period of time specified during which construction commences and copies of renewal certificates for subsequent periods, so long as the project continues.

2. Comprehensive General Liability Coverage for Bodily Injury and Property Damage – occurrence form.

General Aggregate	\$2,000,000	Each occurrence, combined single limit for Bodily Injury and Property Damager
Products – Completed Operations	\$1,000,000	Each occurrence
Aggregate	\$2,000,000	
Personal and Advertising Liability per Occurrence	\$1,000,000	Combined Single Limit for Bodily Injury and Property Damager

Coverage shall be extended to include the following:

- a. Per project and per location aggregate.
- b. Premises and operations coverage.
- c. Coverage for liability and independent contractors.
- d. Products and completed operations.
- e. Coverage for explosion, collapse and underground hazards.

- f. Stop-Gap Liability: All monopolistic states - \$1,000,000.
- g. Owner as additional insureds.
- h. Waiver of Subrogation against Owner
- i. 60-Day Notice of Cancellation or material change.

3. Comprehensive Automobile Liability Insurance – Occurrence Form

Any Automobile	\$1,000,000	Bodily Injury and Property Damage, Combined Single Limit
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Borrowed, Non-Owned	\$1,000,000	Bodily Injury and Hired Automobile Property Damage, Combined Single Limit
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Coverage shall be extended to include:

- a. Contractual liability for assumed liability.
- b. Owner as additional insureds.
- c. Waiver of Subrogation against Owner
- d. 60 Day Notice of Cancellation or material change.
- e. Motor Carrier Act Endorsement MCS-90
- f. Extra Wide/Extra Heavy Hauling Permit Endorsement

4. Any Umbrella Liability or Excess Liability Policy over primary comprehensive General and Automobile Liability shall be carried in a minimum amount of:

\$5,000,000 Each Occurrence  
 \$5,000,000 Aggregate

The Umbrella or Excess Policy shall be following the form of:

- a. Any Additional Insured under primary policy.
- b. Per project and per location aggregates.
- c. Explosion, Collapse, or Underground Hazards
- d. Stop-Gap Liability
- e. Waiver of Subrogation against Owner.
- f. Watercraft (when employed to perform the work).
- g. Aircraft (when employed to perform the work).
- h. 60-Day Notice of Cancellation or material change.

4. Paragraph 5.06 – *Property Insurance* – shall be DELETED in its entirety.

D. ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

1. Paragraph 6.01.A – After the first sentence add: “Contractor’s Work shall be performed according to the standards of care normally exercised by construction organizations within Ohio that are engaged in performing comparable services devoting such attention thereto and applying such skills as may be necessary to perform the work in accordance with the Contract Documents.”
2. Paragraph 6.02.C – Add a new paragraph as follows:
  - “C. If the Contractor does not perform the work in accordance with the Contractor’s construction schedule and the project construction schedule, and it becomes apparent that the work may not be completed within the contract times, the Contractor shall, at no additional cost to the Owner, as necessary to improve the Contractor’s progress: (a) increase the number of employees in such crafts as will regain lost scheduled progress; and (b) increase the number of working hours per shift, shifts per work day, working days per week, the amount of equipment, or any combination of the foregoing measures to regain lost scheduled progress. Contractor shall furnish such employees, materials, facilities, and equipment, and shall work such hours, including extra shifts, overtime operations, and Sundays and holidays, as may be necessary to insure the prosecution and completion of the work in accordance with the Contractor’s construction schedule and the project construction schedule.”
3. Paragraph 6.02.D – Add a new paragraph as follows:
  - “D. Contractor shall at all times maintain good discipline and order at the site. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. If the Owner deems any employee of the Contractor or a subcontractor unsatisfactory, the Contractor must transfer or require its subcontractor to transfer such employee from the project immediately.”
4. Paragraph 6.05(E) - shall be deleted.
5. Paragraph 6.08 – Replace this Paragraph with the following:
  - “A. Permit requirements are specified in Section 0020 00 – INSTRUCTIONS TO BIDDERS, and 00 70 20 – PERMITS.
6. Paragraph 6.10 – Taxes, is amended as follows:
  - “A. OWNER, being a public body, is exempt from taxes on material incorporated into the work. CONTRACTOR, therefore, is not

required to pay such materials taxes. The OWNER will provide the tax exemption forms. These forms are to contain all necessary information required by the State. CONTRACTOR shall be responsible for payment of any applicable commercial activity tax.

- B. 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 to the Work.
- C. Contractor is specifically required to abide by all local tax requirements, if any, including income tax requirements to withhold at source. Contractor acknowledges that the Contract work may take place in various cities and taxing districts, and further acknowledges different tax burdens may be imposed by each. Contractor shall indemnify, defend, and hold Owner harmless for any federal, state, or local tax liabilities incurred as a result of Contractor performing the Work."

- 6. Paragraphs 6.13 and 6.14 – Safety and Protection, are supplemented with the following: "All construction work under this Agreement is subject to Chapter XVII of Title 29, Code of Federal Regulations (CFR) Part 1926 (formerly Chapter XVII of Title 29, Part 1518) titled, "Safety and Health Regulations for Construction" and subsequent amendments."

E. ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

- 1. Paragraph 9.01 – Add the following sentence: The parties acknowledge and agree that ENGINEER is a full-time employee of OWNER and is not an independent third party, however, ENGINEER shall perform any duties under this agreement in good faith and adhere to a standard of professional care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality.

F. ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

- 1. Paragraph 10.03.A.4 – Add the following paragraph:
  - "4. In no event is the Contractor entitled to reserve any rights or take other similar action with respect to a change order if the effect or intent of such reservation or action would be to accommodate a further adjustment in the contract times, contract price, or both, after the Contractor executes the change order. By executing a change order, the Contractor irrevocably certifies that the elements of the change order described are completely satisfied and waives all rights to seek further adjustment of the contract times, contract price, or both, at a later date with respect to the associated change in the work."



E. ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

1. Paragraph 11.01(A)(3) – Amend the Second Sentence as follows: DELETE the phrase “If required by Owner”. Add Sentence OWNER requires CONTRACTOR to competitively bid work from subcontractors.

2. Paragraph 11.01(D) Add the following Sentence: This agreement shall be subject to open book pricing, CONTRACTOR shall make any all bids, invoices, receipts, any and all documentation for expenses and costs available for inspection by OWNER immediately upon request.

Paragraph 11.01.B.1 – Add project manager and project executive to the list of excluded compensation and payroll costs.

E. ARTICLE 12 – CHANGE OF CONTRACT PRICE, CHANGE OF CONTRACT TIMES

1. Paragraph 12.01.C.2.e – Add the following to the end of paragraph 12.01.C.2.e: “Any change that results in a net decrease in cost shall include the appropriate overhead and profit added thereto calculated as set forth in ARTICLE 12 of the General Conditions.”

2. Paragraph 12.01.D – Insert new paragraph as follows: “D. In no event shall Contractor be entitled to any increase in the Contract Price on account of any adverse weather.”

3. Paragraph 12.02.B – Replace Paragraph 12.02.B with the following:

“B. If the Contractor wishes to make a claim for an increase in contract times, prompt written notice as provided herein shall be given. The Contractor’s claim shall include an estimate of cost and of probable effect of delay on progress of the work, a detailed schedule which identifies the critical portions of the work impacted by the delaying event and the dates of such impact, and a statement from Contractor that the increase requested is the entire increase in the contract time associated with the claim. The failure to provide such information and statement within the time period established in Paragraph 10.05.B shall constitute an irrevocable waiver of the claim. In the case of a continuing delay occurring on consecutive days, only one claim is necessary, provided, however, that within ten (10) days of the cessation of the cause of the continuing delay, the Contractor shall notify the Owner in writing that the cause of the delay has ceased. The failure to give notice of the cessation of the cause of the continuing delay shall constitute an irrevocable waiver of any claim based upon the continuing delay.”

4. Add the following paragraph as Paragraph 12.02.C:

“In addition to the requirements of Paragraph 12.02.B, if adverse weather conditions are the basis for a claim for additional time, the contractor shall

support such claim with data acceptable to the Owner and Engineer that substantiates that weather conditions were significantly abnormal for the period of time and could not have reasonably been anticipated and that weather conditions had an adverse effect on a critical element of the scheduled construction. Notwithstanding any other provisions of the Contract Documents to the contrary, the project times will not be adjusted on account of the impact of a normal adverse weather or any of the work or on account of the impact of any abnormal adverse weather on non-critical elements of the work. The support for the evaluation of all adverse-weather claims resulting in lost workdays shall be based upon criteria as provided for in the State of Ohio Department of Transportation (ODOT) Construction and Material Specifications dated January 1, 2013. ODOT Specification 108.06.C lists the number of days that the Contractor may expect to be lost due to weather as follows:

<b>Month</b>	<b>Number of Days Lost Due to Weather</b>
January	8
February	8
March	7
April	6
May	5
June	5
July	4
August	4
September	5
October	6
November	6
December	6

5. Paragraph 12.03.F – Add new paragraph as follows:

“F. Any proposed time extensions for delays requested because of abnormal weather conditions shall be subject to Paragraph 12.02.C.”

6. Paragraph 12.03.G. – Add new paragraph as follows:

“G. Delays beyond the substantial completion date attributable to and within the control of the Contractor, their Subcontractor, or Supplier shall be subject to liquidated damages in the amounts specified in SECTION 00 60 10 – CONTRACT.”

F. ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

1. Paragraph 15.01.A. – Delete the sentence that states: “Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

REPLACE the above sentence with the following: Contractor shall be granted an extension of the Contract Times directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

2. Paragraph 15.03.A(3) – shall be DELETED in its entirety.

G. ARTICLE 14 – PAYMENT TO CONTRACTOR AND COMPLETION

1. Add new Paragraph 14.02.A.4 as follows:

“4. In accordance with ORC Section 153.12 partial payments to the Contractor for labor performed under either a unit or lump sum price contract shall be made at the rate of ninety-two per cent of the estimates prepared by the Contractor and approved by the Engineer. All labor performed after the job is fifty percent completed shall be paid for at the rate of one hundred per cent of the estimates submitted by the Contractor and approved by the Engineer. A Contract shall be considered 50 percent complete when the Contractor has been paid an amount equal to 50 percent of the total cost of the labor of the Contract and 50 percent of the total cost of the material of the Contract.

All materials furnished and delivered but not actually included in the construction and approved by the Owner, after the work under this contract is 50 percent complete, shall be paid for at the rate of 92 percent of the invoiced value of the materials. The balance of such estimates shall be paid when the material is incorporated into and becomes a part of the building construction.

When the major portion of the project is substantially completed and occupied, or in use, or otherwise accepted, and there exists no other reason to withhold retainage, the retained percentages held in connection with such portion shall be released and paid to the contractor, withholding only that amount necessary to assure completion.

All retained payments shall be deposited into an escrow account at the 1<sup>st</sup> National Bank, 1160 E. Main Street, Lebanon Ohio (513) 932-3221, Contact: Gail Haines. The Contractor may waive their right to deposit the payments in an escrow account by written request to the Owner. Retained payments not deposited into an escrow account will be held by the Owner for future payment to the Contractor.”

2. Amend Paragraph 14.02.C to read: “Thirty days after presentation .....”

G. ARTICLE 16 – DISPUTE RESOLUTION

1. Delete Paragraphs 16.01.A, 16.01.B, and 16.01.C and replace with the following:

“1. This Contract shall be construed under the laws of the State of Ohio, and the parties hereby stipulate to the venue for any and all claims, disputes, interpretations, litigation of any kind arising out of this Contract being exclusively in the Warren County, Ohio Court of Common Pleas (unless both parties mutually agree in writing to alternate dispute resolution), as well as waiving any right to bring or remove such matters in or to any other state or federal court.”

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

**TECHNICAL  
SPECIFICATIONS**

**FOR THE**

**BOARD OF COUNTY COMMISSIONERS  
WARREN COUNTY, OHIO**

**COLUMBIA ROAD WATERMAIN  
IMPROVEMENTS – PHASE 2**

**APRIL 2022**

**WARREN COUNTY WATER & SEWER DEPARTMENT  
406 JUSTICE DRIVE  
LEBANON, OHIO 45036**

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SECTION 01 11 00

SUMMARY OF WORK

PART 1 – GENERAL

1.1 LOCATION OF WORK

- A. The work for this Contract is located in Warren County, Ohio and consists of 1,150 feet of 24” ductile iron water main along Columbia Road in Mason, Ohio.
- B. Specific location of the Project is as indicated in the “Location Map” on Project Cover Sheet.
- C. Access to the site can be gained by contacting the Warren County Water & Sewer Department, Project Manager, Chris Wojnicz at (513) 695-1646.

1.2 GENERAL

- A. The installing Contractor shall obtain necessary building and related permits and pay necessary application fees at no additional cost to Owner. Obtain any and all permits in a timely fashion to facilitate the construction schedule.
- B. The Contractor shall furnish all labor, materials, equipment, tools, services and incidentals to complete all work required by these Specifications and as shown on the Drawings.
- C. The Contractor shall perform the work complete, in place, and ready for continuous service, and shall include repairs, testing, permits, cleanup, replacements and restoration required as a result of construction of the work.
- D. All materials, equipment skills, tools and labor which is reasonably and properly inferable and necessary for the proper completion of the work in a substantial manner and in compliance with the requirements stated or implied by these Specifications or Drawings shall be furnished and installed by the Contractor without additional compensation, whether specifically indicated in the Contract Documents or not.
- E. The Contractor shall comply with all municipal, county, state, federal, and other codes, which are applicable to the proposed construction work.

1.3 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required for construction of

Columbia Road Watermain Improvements – Phase 2 in its entirety as shown on the Drawings and specified herein.

B. General Construction work includes all work shown on the contract drawings and specifications, including, but is not limited to, the following:

1. Site work including earthwork, dewatering, piping, paving, and restoration.

#### 1.4 WORK SEQUENCE

A. Contractor to perform work with coordination of the Warren County Engineer's Office representatives regarding road access. Columbia Road to remain open at all times..

#### 1.5 WORK HOURS

A. Work shall be limited to the hours of 8 AM – 5 PM.

#### 1.6 CONTRACTOR'S USE OF PREMISES

A. Contractor shall limit the use of the premises for his/her Work and for storage to allow for:

1. Work by other contractors.
2. OWNER occupancy.

B. Coordinate use of premises with Owner.

C. CONTRACTOR shall assume full responsibility for security of all his/her and his/her subcontractors' materials and equipment stored on the site.

D. If directed by the ENGINEER, move any stored items, which interfere with operations of Owner or other contractors.

E. Obtain and pay for use of additional storage or work areas if needed to perform the Work.

#### 1.7 PLANS AND SPECIFICATIONS

A. The General Condition Section (No. 00 70 00) contains General Requirements which govern the work. The Technical Specifications consist of three parts: General, Products, and Execution. Products and Execution modify and supplement these by detailed requirements of the work and shall always govern whenever there appears to be a conflict.

#### 1.8 WORK BY OWNER



A. OWNER will perform the following activities in connection with the Work:

1. Operation of all existing valves, gates, pumps, equipment, and appurtenances that will affect OWNER'S operation, unless specified otherwise.

#### 1.9 EASEMENTS AND RIGHT-OF-WAY

A. Easements and rights-of-way will be provided by OWNER. Confine construction operations within OWNER'S property, public rights-of-way, and easements obtained by OWNER, and the limits shown. Use care in placing construction tools, equipment, excavated materials, and products to be incorporated into the Work to avoid damage to property and interference with traffic. Do not enter private property outside the construction limits without permission from the OWNER of the property.

B. On Private Property:

1. General limits of easements are shown on Drawings.

C. Within Highway and Railroad Right-of-Way: Permits will be obtained by OWNER, other work permits to be obtained by CONTRACTOR. All work performed and all operations of CONTRACTOR and Subcontractors within the limits of railroad and highway rights-of-ways shall conform to requirements of railroad or highway authority owner and applicable work permits, or authority having jurisdiction over right-of-way.

#### 1.10 NOTICES TO OWNERS AND AUTHORITIES OF PROPERTIES ADJACENT TO OR SIGNIFICANTLY IMPACTED BY THE WORK

A. Notify owners of adjacent property and utilities when prosecution of the Work may affect their property, facilities, or use of property.

B. When it is necessary to temporarily obstruct access to property, or when utility service connection will be interrupted, provide notices sufficiently in advance to enable affected persons to provide their needs. Conform notices to applicable local ordinance and, whether delivered orally or in writing, include appropriate information concerning the interruption and instructions on how to limit inconvenience caused thereby.

C. Utilities and other concerned agencies shall be notified at least 48 hours prior to cutting or closing streets or other traffic areas or excavating near underground utilities or pole lines.

END OF SECTION

SECTION 01 26 57

CHANGE ORDER PROCEDURES

PART 1 – GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Promptly implement change order procedures.
  - 1. Provide full written data required to evaluate changes.
  - 2. Maintain detailed records of work done on a timer-and-material/force account basis.
  - 3. Provide full documentation to ENGINEER on request.
- B. Designate in writing the member of CONTRACTOR's organization:
  - 1. Who is authorized to accept changes in the Work.
  - 2. Who is responsible for informing others in the CONTRACTOR's employ of the authorization of changes in the Work.
- C. OWNER will designate in writing the person who is authorized to execute Change Orders.

1.2 RELATED REQUIREMENTS

- A. Standard General Conditions of the Construction Contract are included in Section 00 70 00.
  - 1. Methods of determining cost of credit to OWNER resulting from changes in Work made on a time and material basis.
  - 2. CONTRACTOR's claims for additional costs.
- B. Applications for Payment are included in Section 01 29 76.
- C. Schedule of Values are included in Section 01 29 73.

1.3 DEFINITIONS

- A. Change Order: See Contract for Construction.
- B. Construction Change Authorization: A written order to the CONTRACTOR, signed by OWNER and ENGINEER, which amends the Contract Documents as described and authorized CONTRACTOR to proceed with a change which affects the Contract Sum or the Contract Time, for inclusion in a subsequent Change Order.

- C. Field Order: A written order to the CONTRACTOR, signed by the ENGINEER and the CONTRACTOR, which is issued to interpret/clarify the Contract Documents, order minor changes in the work and/or memorialize trade-off agreements. The work described by a Field Order is to be accomplished without change to the Contract Sum, Contract Time, and/or claims for other costs.

#### 1.4 PRELIMINARY PROCEDURES

- A. OWNER or ENGINEER may initiate changes by submitting a Request for Proposal (RFP) to CONTRACTOR. Request will include:
  - 1. Detailed description of the Change, Products and location of the change in the project.
  - 2. Supplementary or revised Drawings and Specifications.
  - 3. The projected time span for making the change and a specific statement as to whether overtime work is, or is not, authorized.
  - 4. A specific period of time during which the requested price will be considered valid.
  - 5. Such request is for information only and is not an instruction to execute the changes, nor to stop work in progress.
- B. CONTRACTOR may initiate changes by submitting a written notice to ENGINEER, containing:
  - 1. Description of the proposed changes.
  - 2. Statement of the reason for making the changes.
  - 3. Statement of the effect on the Contract Sum and the Contract Time.
  - 4. Statement of the effect on the work of separate CONTRACTORS.
  - 5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

#### 1.5 WORK DIRECTIVE CHANGE AUTHORIZATION

- A. In lieu of a Request for Proposal (RFP), ENGINEER may issue a work directive authorization for CONTRACTOR to proceed with a change for subsequent inclusion in a Change Order.
- B. Authorization will describe changes in the work, both additions and deletions, with attachments of revised Contract Documents to define details of the change and will designate the method of determining any change in the Contract Sum and any change in Contract Time.
- C. OWNER and ENGINEER will sign and date the Work Directive Change Authorization as authorization for the CONTRACTOR to proceed with the changes.
- D. CONTRACTOR may sign and date the Construction Change Authorization to indicate agreement with the terms therein.

## 1.6 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump-sum proposal and for each unit price which has not previously been established, with sufficient substantiating data to allow ENGINEER to evaluate the quotation.
- B. On request, provide additional data to support time and cost computations
  - 1. Labor required.
  - 2. Equipment required.
  - 3. Products required.
    - a. Recommended source of purchase and unit cost.
    - b. Quantities required.
  - 4. Taxes, insurance and bonds.
  - 5. Credit for work deleted from Contract, similarly documented.
  - 6. Overhead and profit.
  - 7. Justification for any change in Contract Time.
- C. Support each claim for additional costs and for work done on a time-and-material/force account basis, with documentation as required for a lump-sum proposal, plus additional information.
  - 1. Name of the OWNER's authorized agent who ordered the work and date of the order.
  - 2. Dates and times work was performed and by whom.
  - 3. Time record, summary of hours worked and hourly rates paid.
  - 4. Receipts and invoices for:
    - a. Equipment used, listing dates and times of use.
    - b. Products used, listing of quantities.
    - c. Subcontracts.

## 1.7 PREPARATION OF CHANGE ORDERS AND FIELD ORDERS

- A. ENGINEER will prepare each Change Order and Field Order.
- B. Change Order will describe changes in the work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
- C. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

- D. Field Order will describe interpretations or clarifications of Contract Documents, order minor changes in the work, and/or memorialize trade-off agreements.
- E. Field Order work will be accomplished without change in the Contract Sum, Contract Time, and/or claims for other costs.

1.8 LUMP-SUM/FIXED PRICE CHANGE ORDER

- A. Content of Change Orders will be based on, either:
  - 1. ENGINEER's Proposal Request and CONTRACTOR's responsive Proposal as mutually agreed between OWNER and CONTRACTOR.
  - 2. CONTRACTOR's Proposal for a change, as recommended by ENGINEER.
- B. OWNER and ENGINEER will sign and date the Change Order as authorization for the CONTRACTOR to proceed with the changes.
- C. CONTRACTOR will sign and date the Change Order to indicate agreement with the terms therein.

1.9 UNIT PRICE CHANGE ORDER

- A. Content of Change Orders will be based on, either:
  - 1. ENGINEER's definition of the scope of the required changes.
  - 2. CONTRACTOR's Proposal for a change, as recommended by ENGINEER.
  - 3. Survey of completed work.
- B. The amounts of the unit prices to be:
  - 1. Those stated in the Agreement.
  - 2. Those mutually agreed upon between OWNER and CONTRACTOR
- C. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:
  - 1. OWNER and ENGINEER will sign and date the Change Order as authorization for CONTRACTOR to proceed with the changes.
  - 2. CONTRACTOR will sign and date the Change Order to indicate agreement with the terms therein.

- D. When quantities of the items cannot be determined prior to start of the work:
  - 1. ENGINEER or OWNER will issue a construction change authorization directing CONTRACTOR to proceed with the change on the basis of unit prices, and will cite the applicable unit prices.
  - 2. At completion of the change, ENGINEER will determine the cost of such work based on the unit prices and quantities used.
    - a. CONTRACTOR shall submit documentation to establish the number of units of each item and any claims for a change in Contract Time.
  - 3. ENGINEER will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
  - 4. OWNER and CONTRACTOR will sign and date the Change Order to indicate their agreement with the terms therein.

1.10 TIME AND MATERIAL/FORCE ACCOUNT CHANGE ORDER/WORK DIRECTIVE CHANGE AUTHORIZATION

- A. ENGINEER and OWNER will issue a Work Directive Change Authorization directing CONTRACTOR to proceed with the changes.
- B. At completion of the change, submit itemized accounting and supporting data as provided in the Article "Documentation of Proposals and Claims" of this Section.
- C. ENGINEER will determine the allowable cost of such work, as provided in General Conditions and Supplementary Conditions.
- D. ENGINEER will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
- E. OWNER and CONTRACTOR will sign and date the Change Order to indicate their agreement therewith.

1.11 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Periodically revise Schedule of Values and Request for Payment forms to record each change as a separate item of work, and to record the adjusted Contract Sum.
- B. Periodically revise the Construction Schedule to reflect each change in Contract Time.
  - 1. Revise subschedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record

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Documents.

PART 2 – PRODCUS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

Contract Number: \_\_\_\_\_

Change Order Number: \_\_\_\_\_

Original Contract Price \$ \_\_\_\_\_

Net Increase/Decrease in Contract Price (this change order) \$ \_\_\_\_\_

Total Adjusted Contract Price (including this change order) \$ \_\_\_\_\_

This change order increases/decreases the time to complete the work by \_\_\_\_\_ Calendar days.

The extended completion date is \_\_\_\_\_.

This change order checked by \_\_\_\_\_ (Chief) Resident Engineer Date

This change order is requested by \_\_\_\_\_.

This change order is recommended by: \_\_\_\_\_ Consultant Engineer P.E. # Date

The undersigned agree to the terms of the change order.

\_\_\_\_\_  
Contractor Date

\_\_\_\_\_  
Owner Date

Approval as to appropriation:

\_\_\_\_\_  
Certification Officer Date



Name of City/District etc. \_\_\_\_\_

Contract Number \_\_\_\_\_

Contract Title \_\_\_\_\_ Change Order Number \_\_\_\_\_

OWNER's Name: \_\_\_\_\_

OWNER's Address: \_\_\_\_\_

CONTRACTOR's Name: \_\_\_\_\_

CONTRACTOR's Address: \_\_\_\_\_

Description of Change

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Reason for Change

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FIELD ORDER

PROJECT:

FIELD ORDER NO:

DATE:

CONTRACT:

OWNER:

OWNER PROJECT NO.

TO:

CONTRACT DATE:

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This Field Order is issued to interpret/clarify the Contract Documents, order minor changes in the work and/or memorialize trade off agreements. Both parties hereby agree that the work described by this Field Order is to be accomplished without change in Contract Sum, Contract Time, and/or claims for other costs.

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DESCRIPTION: (Here insert a written description of the interpretation, change or agreement.)

SECTION 01 29 73

SCHEDULE OF VALUES

PART 1 GENERAL

1.01 DESCRIPTION

- A. CONTRACTOR shall furnish all labor, materials, tools, equipment, appurtenances and all services necessary to perform all Work required at the CONTRACTOR'S lump sum or unit prices listed herein and/or on the Bid Form.
- B. No direct or separate payment will be made for providing miscellaneous temporary or accessory work, plants, services, CONTRACTOR'S field offices, job signs, sanitary requirements, testing, safety devices, approval and record drawings, water supplies, power, maintaining traffic, removal of waste, watchmen, bonds, insurance, etc. unless specifically listed on the Bid Form, this Section or requested by the ENGINEER. Compensation for all such services, items and materials shall be included in the CONTRACTOR'S prices bid for the lump sum and unit price pay items listed herein and/or on the Bid Form.
- C. Each lump sum and unit bid 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.

1.02 ENGINEER'S ESTIMATE OF QUANTITIES

- A. ENGINEER'S estimated quantities for unit price pay items, as listed in the Bid Form, are approximate only. OWNER does not expressly or by implication agree that the nature of the materials encountered below the surface of the ground or the actual quantities of material encountered or required will correspond therewith and reserves the right to increase or decrease any quantity or to eliminate any quantity, as OWNER may deem necessary.

1.03 UNIT PRICE WORK

- A. General: All payments based on the as-built measurements.
- B. Unsuitable Soil: If, as determined by the ENGINEER, the material at or below the grade of the bottom of trench or other excavation is unsuitable as a foundation for its intended purpose, it shall be removed to such depths and widths as ENGINEER may direct and be replaced by the CONTRACTOR with approved materials. Payment for this work will be made on a lineal foot price bid on one (1) foot increments of fill for various size pipe unless otherwise stated in the Bid Form. If not listed on the Bid Form, CONTRACTOR shall be paid a negotiated amount.
- C. Pressure Pipe (Water):
  - 1. Pressure Water Mains:
    - a. Excavation and Backfill: Unless otherwise shown on the Bid Form, the unit price for each type, size and class of water main pipe shall include the cost of excavation (other than suitable material) and backfilling with gravel backfill as specified, or shown on the drawings or otherwise required. Where directed by the ENGINEER, the CONTRACTOR shall place control density fill in place of granular material at the unit price indicated on the bid form. Length for existing

pavement sawing and removal is taken along the linear footage of the proposed main and is not doubled to account for the two saw lines. Backfill materials shall be compacted to the standard noted on the drawings.

- b. Restoration:
  - 1) Pavement: Unless otherwise shown on the Bid Form, the unit price bid for each type of pavement shall include the cost of furnishing and installing all materials necessary to restore pavement removed for trenching. The cost includes trench width only. Pavement damaged by the CONTRACTORs operations beyond the trench limits shall be restored at no additional costs to the OWNER.
  - 2) Seeding and Mulching: Unless otherwise shown on the Bid Form, the unit price bid is for each type of soil, seed and mulch, and shall include the cost of furnishing and installing in conformity with the specifications.
- c. Traffic Control: Unless otherwise shown on the Bid Form, the lump sum bid for all labor and material to maintain vehicle and pedestrian traffic flow around the work. This includes, but is not limited to, lights, signs, flagging and/or barricades necessary to keep the workers and travelling public safe.
- d. Valves: The unit price for each type, size and class of water main pipe shall include furnishing and installing the valve, valve keys, valve box and covers in conformity with the specifications.
- e. Pipe: Unless otherwise shown on the Bid Form, the unit price bid for each type, size and class of water main pipe shall include the cost of furnishing and installing the water main pipe including all pipe fittings, restraint systems, anchoring products, thrust blocking, water service lines and connections specified, or shown on the drawings or otherwise required. The length of water main to be used as a basis of payment shall be the actual field measurement taken along the centerline of each type, size and class of pipe as measured along restored ground profile. The measurement shall be through all valves and fitting installed in the pipeline. The unit price for each type, size, and class of water main pipe shall include the cost of testing and disinfection of the pipe.
- f. Fire Hydrants: The unit price for each type, size and class of water main pipe shall include the cost of furnishing and installing the fire hydrant assemblies in accordance with specifications.
- g. Clearing and Grubbing: Unless otherwise shown on the Bid Form, the unit price bid for removal of trees including stump grinding.
- h. Construction Staking:
  - 1) This work consists of the CONTRACTOR being responsible for furnishing, placing, and maintaining construction layout stakes necessary for the proper execution of the Work under the contract and removing all stakes at the completion of the project. The OWNER will not provide any survey layout work.
  - 2) The CONTRACTOR shall furnish field crews and set all stakes necessary to secure a correct layout of the Work including locating and marking the construction limits and confirming existing elevations for utilities, structures, etc., as needed.
  - 3) The CONTRACTOR shall use competent personnel and suitable equipment for the layout work required and a Surveyor currently licensed in the State of Ohio, shall supervise the operation. The Registered Surveyor shall be made available to answer any questions from the OWNER. The CONTRACTOR shall submit the name, address, and Surveyor's registration number to the OWNER before

beginning any work. The Surveyor may be required to sign and seal any survey submittals requested by the OWNER.

- 4) All survey calculations, including filled out "Cut Sheets", shall be made available to the OWNER as work progresses and before the Work is performed.
- 5) The CONTRACTOR is responsible for having the finished Work conform to the lines, grades, elevations, and dimensions shown on the plans. Any inspection or checking of the CONTRACTOR'S layout by the OWNER or ENGINEER and the acceptance of all or any part of it does not relieve the CONTRACTOR of the responsibility to secure the proper dimensions, grades, and elevations of the Work.
- 6) Exercise care in the preservation of stakes and benchmarks, and reset them at no additional cost to the OWNER when they are damaged, lost, vandalized, displaced, or moved. No changes or modifications shall be made without written notice to the OWNER. If a change is approved, payment will be made for additional survey work and shall be paid a negotiated amount.

D. Lump Sum Items:

1. Whenever a construction item that requires excavation and backfill is bid on a lump sum basis, the price shall include all work specified to be done on an itemized basis.
2. When an item is part of a lump sum, the price quoted shall include the cost of furnishing all labor and material to perform the work in accordance with these specifications.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01 29 76

PROGRESS PAYMENT PROCEDURES

PART 1 – GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Submit Applications for Payment to the ENGINEER in accordance with the schedule established by Conditions of the Contract and Agreement between OWNER and CONTRACTOR.
- B. The accepted Schedule of Values shall be used as the basis for the CONTRACTOR's Application for Payment.

1.2 RELATED WORK

- A. Agreement between OWNER and CONTRACTOR is included in Section 00 40 00.
- B. Standard General Conditions of the Construction Contract are included in Section 00 70 00.
- C. Contract Closeout is included in Section 01 77 00.

1.3 SUBMITTALS

- A. Submit to the OWNER with itemized data typed on 8-1/2-in by 11-in or 8-1/2-in by 14-in white paper continuation sheets.
- B. Provide itemized data on continuation sheet.
  - 1. Format, schedules, line items and values: Those of the Schedule of Values accepted by the ENGINEER.

1.4 PEREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

- A. Application Form
  - 1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.
  - 2. Fill in summary of dollar values to agree with respective totals indicated on continuation sheets.
  - 3. Execute certification with signature of a responsible officer of Contract firm.

B. Continuation Sheets

1. Fill in total list of all scheduled component items of Work, with item number and scheduled dollar value for each item.
2. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored.
  - a. Round off values to nearest dollar, or as specified for Schedule of Values.
3. List each Change Order executed prior to date of submission, at the end of the continuation sheets.
  - a. List by Change Order Number and description, as for an original component item of work.
4. To receive approval for payment on component material stored on site, submit copies of the original paid invoices with the application for payment.

1.5 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When the OWNER or the ENGINEER requires substantiating data, submit suitable information, with a cover letter identifying.
1. Project.
  2. Application number and date.
  3. Detailed list of enclosures.
  4. For stored products:
    - a. Item number and identification as shown on application.
    - b. Description of specific material.
- B. Submit one copy of data and cover letter for each copy of application.
- C. As a prerequisite for payment, submit a "Surety Acknowledgement of Payment Request" letter showing amount of progress payment which the CONTRACTOR is requesting.
- D. Maintain an updated set of drawings to be used as record drawings in accordance with Section 01 77 00. As a prerequisite for monthly progress payments, exhibit the updated record drawings for review by the OWNER and ENGINEER.

1.6 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in Application form as specified for progress payments.
- B. Use continuation sheet for presenting the final statement of accounting as specified in Section 01700 - Contract Closeout.

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- C. Submit all Project Record Documents in accordance with Section 01 77 00.

#### 1.7 SUBMITTAL PROCEDURE

- A. Submit Applications for Payment to the ENGINEER at the times stipulated in the Agreement.
- B. Number: Five copies of each Application.
- C. When the ENGINEER finds Application properly completed and correct, he/she will transmit certificate for payment to OWNER, with copy to CONTRACTOR.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION



SECTION 01 31 19

PRECONSTRUCTION MEETINGS

PART 1 – GENERAL

1.1 DESCRIPTION

- A. A pre-construction meeting will be held for the Project. CONTRACTOR shall attend the conference prepared to discuss all items on the agenda. The representatives present for each party shall be authorized to act on their behalf.
- B. Purpose of the meeting is to designate responsible personnel, establish working relationships, and establish administrative provisions for the Project. Matters requiring coordination will be discussed and procedures for handling such matters will be established.
- C. Date, Time and Location: Meeting will be held after execution of the Contract and before Work starts at the Site. ENGINEER/OWNER will determine the date, time, and location of the meeting and advise the interested and involved parties.
- D. ENGINEER/OWNER will distribute an agenda, preside at the meeting, and prepare and distribute meeting minutes to all meeting participants and others as requested.
- E. CONTRACTOR shall provide data required and contribute appropriate items for discussion. Unless previously submitted to ENGINEER, CONTRACTOR shall bring to the meeting a draft of each of the following:
  - 1. Progress Schedule.
  - 2. List of required Shop Drawings and submittals
  - 3. Schedule of Values.
  - 4. CONTRACTOR'S Site-specific health and safety plan.
  - 5. List of emergency contact information.

1.2 REQUIRED ATTENDANCE

- A. Meeting shall be attended by CONTRACTOR'S project manager, Site superintendent, and major Subcontractors and major equipment Suppliers, as CONTRACTOR deems appropriate.
- B. Other attendees will be representatives of:
  - 1. OWNER.
  - 2. ENGINEER
  - 3. Governmental agencies having control or responsibility, if available.
  - 4. Utility companies.
  - 5. Others as requested by OWNER, CONTRACTOR, or ENGINEER.

1.3 AGENDA

A. Agenda: A complete agenda will be furnished to CONTRACTOR prior to the conference. However, CONTRACTOR shall be prepared to discuss the following:

1. Designation of responsible personnel.
2. Communications and correspondence.
3. Coordination with other contractors.
4. Emergency contact information.
5. Review of scope of Work.
6. Review of Contract Times, Milestones, and completion dates.
7. Subcontractors.
8. Progress Schedule.
9. Schedule of Values.
10. Project coordination and coordination with OWNER'S operations.
11. Progress meetings.
12. Submittals and Shop Drawings: processing and schedule of submittals.
13. Substitutions.
14. OWNER'S tax-exempt status.
15. Payments, retainage, payrolls, and Substantial Completion.
16. Processing of Field Orders and Change Order.
17. Use of premises, security, housekeeping, safety, CONTRACTOR'S Responsibility for safety and first aid procedures, Site access.
18. Field offices, trailers, and temporary facilities.
19. Storage of materials.
20. Construction photographs.
21. Record drawings.
22. Clarifications.
23. Requirements for copies of Contract Documents and availability.
24. CONTRACTOR correction period.
25. Layouts and surveys.
26. Hours of Work and overtime.
27. Restoration.
28. Permits.
29. Insurance in force.
30. Financing.
31. Disposal of demolition materials.
32. Next meeting.
33. General discussion and questions.
34. Site visit if required.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 – GENERAL

1.1 DESCRIPTION OF REQUIREMENTS

- A. This Section specifies the general methods and requirements of submissions applicable to Shop Drawings, Product Data, Samples, Mock Ups, Construction Photographs, and Construction or Submittal Schedules. Additional general submission requirements are contained in Paragraphs 6.24 and 6.25 of the General Conditions. Detailed submittal requirements are specified in the technical Sections.
- B. All submittals shall be clearly identified by reference to Section Number, Paragraph, Drawing Number or Detail as applicable. Submittals shall be clear and legible and of sufficient size for presentation of data.

1.2 SHOP DRAWINGS, PRODUCT DATA, SAMPLES

- A. Shop Drawings
  - 1. CONTRACTOR shall submit one complete submittal by section. A complete submittal shall include all items listed under the Shop Drawing heading for each section.
  - 2. The General Contractor shall be responsible for the coordination of all submittals for all contracts. This shall include a submittal schedule of Shop Drawings as required, as well as receiving and forwarding submittals from other contractors and the ENGINEER. The General Construction Contractor shall not be responsible for stamping submittals “Approved” from other contractors (unless a Combined Bid has been accepted by the Owner).
  - 3. Shop drawings as specified in individual Sections include custom-prepared data such as fabrication and erection/installation (working) drawings, scheduled information, setting diagrams, actual shop work manufacturing instructions, custom templates, special wiring diagrams, coordination drawings, individual system or equipment inspection and test reports, including performance curves and certifications, as applicable to the work.
  - 4. All shop drawings submitted by Prime Contractors and respective subcontractors shall be sent directly to the General Contractor for checking. The Prime Contractor shall be responsible for their submission at the proper time so as to prevent delays in delivery of materials.
  - 5. Check all shop drawings regarding measurements, size of members, materials and details to make sure that they conform to the intent of the

Drawings and related Sections. Return shop drawings found to be inaccurate or otherwise in error to the subcontractors for correction before submission thereof.

6. All details on shop drawings shall show clearly the relation of the various parts to the main members and lines of the structure and where correct fabrication of the work depends upon field measurements, such measurements shall be made and noted on the drawings before being submitted.
7. Submittals for equipment specified under Division 33 shall include a listing of all installations where identical or similar equipment has been installed and been in operation for a period of at least one year.
8. All Shop Drawings shall be in English.

B. Product Data

1. Product data as specified in individual Sections include, standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturer's product specification and installation instructions, availability of colors and patterns, manufacturer's printed statements of compliances and applicability, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, mill reports, product operating and maintenance instructions and recommended spare-parts listing and printed product warranties, as applicable to the work.

C. Samples

1. Samples specified in individual Sections include, physical examples of the work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols and units of work to be used by the ENGINEER or OWNER for independent inspection and testing, as applicable to the work.

1.3 CONTRACTOR'S RESPONSIBILITIES

A. Review shop drawings, product data and samples, including those by subcontractors, prior to submission to determine and verify the following:

1. Field measurements
2. Field construction criteria
3. Catalog numbers and similar data
4. Conformance with related Sections

- B. Each shop drawing, sample and product data submitted by the CONTRACTOR shall have affixed to it the following Certification Statement including the Contractor's Company name and signed by the CONTRACTOR: "Certification Statement: by this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements." Shop drawings and product data sheets 11-in x 17-in and smaller shall be bound together in an orderly fashion and bear the above Certification Statement on the cover sheet. The cover sheet shall fully describe the packaged data and include a listing of all items within the package. Provide to the Resident Project Representative a copy of each transmittal sheet for shop drawings, product data and samples at the time of submittal to the ENGINEER. Shop Drawings that are not stamped will not be reviewed.
- C. The CONTRACTOR shall utilize a 10-character submittal identification numbering system in the following manner:
1. The first character shall be a D, S, P, M, or R, which represents Shop/Working Drawing and other Product Data (D), Sample (S), Preliminary Submittal (P), Operating/ Maintenance Manual (M), or Request for Information (R).
  2. The next five digits shall be the applicable Section Number.
  3. The next three digits shall be the numbers 001 to 999 to sequentially number each initial separate item or drawing submitted under each specific Section Number.
  4. The last character shall be a letter, A to Z, indicating the submission, or resubmission of the same Drawing, i.e., "A=1st submission, B=2nd submission, C=3rd submission, etc. A typical submittal number would be as follows:
- |               |   |  |  |
|---------------|---|--|--|
| D 03300 008 B |   |  |  |
| D             | = | Shop Drawing                                       |  |
| 03300         | = | Section for Concrete                               |  |
| 008           | = | The eighth initial submittal under this section    |  |
| B             | = | The second submission (first resubmission) of that |  |
- D. Notify the ENGINEER in writing, at the time of submittal, of any deviations in the submittals from the requirements of the Contract Documents.
- E. The review and approval of shop drawings, samples or product data by the ENGINEER shall not relieve the CONTRACTOR from the responsibility for the fulfillment of the terms of the Contract. All risks of error and omission are assumed by the CONTRACTOR and the ENGINEER will have no responsibility

therefore.

- F. No portion of the work requiring a shop drawing, sample, or product data shall be started nor shall any materials be fabricated or installed prior to the approval or qualified approval of such item. Fabrication performed, materials purchased or on-site construction accomplished which does not conform to approved shop drawings and data shall be at the CONTRACTOR's risk. The OWNER will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.
- G. Project work, materials, fabrication, and installation shall conform with approved shop drawings, applicable samples, and product data.
- H. Contractor to use green ink for all submittals.

#### 1.4 SUBMISSION REQUIREMENTS

- A. Make submittals promptly in accordance with approved schedule and in such sequence as to cause no delay in the Work or in the work of any other CONTRACTOR.
- B. Each submittal, appropriately coded, will be returned within 30 working days following receipt of submittal by the ENGINEER.
- C. Number of submittals required:
  - 1. Shop Drawings: The number of copies for distribution is the minimum required for coordination of specific items of the Work. Additional shop drawings are required for coordination between prime contractors for certain items of the Work. A minimum of six copies for distribution as follows:
    - a. ENGINEER – one
    - b. Resident Project Representative – one
    - c. OWNER – one
    - d. Prime Contractor – three
    - e. Other Prime Contractors - as required.
  - 2. Product Data: Six copies for same distribution as shop drawings.
  - 3. Samples: Submit the number stated in the respective Sections.
- D. Submittals shall contain:
  - 1. The date of submission and the dates of any previous submissions.
  - 2. The Project title and number.
  - 3. Contractor identification.
  - 4. The names of:
    - a. Contractor

- b. Supplier
- c. Manufacturer
- 5. Identification of the product, with the section number, page and paragraph(s).
- 6. Field dimensions, clearly identified as such.
- 7. Relation to adjacent or critical features of the work or materials.
- 8. Applicable standards, such as ASTM or Federal Standards numbers.
- 9. Identification of deviations from Contract Documents.
- 10. Identification of revisions on resubmittals.
- 11. An 8-in by 4-in blank space suitably sized to fit both the Contractor and ENGINEER stamps.

1.5 REVIEW OF SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

- A. The review of shop drawings, data and samples will be for general conformance with the design concept and Contract Documents. They shall not be construed:
  - 1. as permitting any departure from the Contract requirements;
  - 2. as relieving the CONTRACTOR of responsibility for any errors, including details, dimensions, and materials;
  - 3. as approving departures from details furnished by the ENGINEER, except as otherwise provided herein.
- B. The CONTRACTOR remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner. CONTRACTOR shall provide additional copies of shop drawings for distribution to related prime contractors.
- C. If the shop drawings, data or samples as submitted describe variations and show a departure from the Contract requirements which ENGINEER finds to be in the interest of the OWNER and to be so minor as not to involve a change in Contract Price or Contract Time, the ENGINEER may return the reviewed drawings without noting an exception.
- D. Submittals will be returned to the Contractor under one of the following codes.
  - 1. Code 1 - "APPROVED" is assigned when there are no notations or comments on the submittal. When returned under this code the CONTRACTOR may release the equipment and/or material for manufacture.
  - 2. Code 2 - "APPROVED WITH CHANGES NOTED". This code is assigned when a confirmation of the notations and comments IS NOT required by the CONTRACTOR. The CONTRACTOR may release the equipment or material for manufacture; however, all notations and

- comments must be incorporated into the final product.
3. Code 3 - "REVISE AND RESUBMIT". This combination of codes is assigned when notations and comments are extensive enough to require a resubmittal of the package. This resubmittal is to address all comments, omissions and non-conforming items that were noted. Resubmittal is to be received by the ENGINEER within 15 calendar days of the date of the ENGINEER's transmittal requiring the resubmittal.
  4. Code 4 - "REJECTED" is assigned when the submittal does not meet the intent of the Contract Documents. The CONTRACTOR must resubmit the entire package revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the Contract Documents.
- E. Resubmittals will be handled in the same manner as first submittals. On resubmittals the CONTRACTOR shall direct specific attention, in writing on the letter of transmittal and on resubmitted shop drawings by use of revision triangles or other similar methods, to revisions other than the corrections requested by the ENGINEER, on previous submissions. Any such revisions which are not clearly identified shall be made at the risk of the CONTRACTOR. The CONTRACTOR shall make corrections to any work done because of this type revision that is not in accordance to the Contract Documents as may be required by the ENGINEER.
- F. Partial submittals may not be reviewed. The ENGINEER will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the CONTRACTOR and will be considered "Not Approved" until resubmitted. The ENGINEER may at his option provide a list or mark the submittal directing the CONTRACTOR to the areas that are incomplete.
- G. Repetitive Review
1. Shop drawings and other submittals will be reviewed no more than twice at the Owner's expense. All subsequent reviews will be performed at times convenient to the ENGINEER and at the CONTRACTOR's expense, based on the ENGINEER's then prevailing rates. The CONTRACTOR shall reimburse the Owner for all such fees invoiced to the Owner by the ENGINEER. Submittals are required until approved.
  2. Any need for more than one resubmission, or any other delay in obtaining ENGINEER's review of submittals, will not entitle CONTRACTOR to extension of the Contract Time.
- H. If the CONTRACTOR considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, the CONTRACTOR shall give written notice thereof to the ENGINEER at least 7 working days prior to release for manufacture.
- I. When the shop drawings have been completed to the satisfaction of the



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ENGINEER, the CONTRACTOR shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the ENGINEER.

#### 1.6 DISTRIBUTION

- A. Distribute reproductions of approved shop drawings and copies of approved product data and samples, where required, to the job site file and elsewhere as directed by the ENGINEER. Number of copies shall be as directed by the ENGINEER but shall not exceed seven unless otherwise approved for specific items of work.

#### 1.7 MOCK UPS

- A. Mock Up units as specified in individual Sections include, but are not necessarily limited to, complete units of the standard of acceptance for that type of work to be used on the project. Remove at the completion of the work or when directed.

#### 1.8 CONSTRUCTION SCHEDULE

- A. In lieu of the progress schedules specified in Article 2.06, 2.09 and 14.01 of the General Conditions, the General CONTRACTOR shall, within 10 days after the Effective Date of the Agreement, provide and submit to the Engineer for approval, the Schedule he plans to maintain in order to successfully construct the work within the time allotted. This Schedule shall include a Critical Path Network and a Computer generated print-out. The Schedule shall account for all Contracts in addition to the work of the General CONTRACTOR. In addition to all reasonably important construction activities, the Schedule shall provide for the proper sequence of construction considering the various crafts, purchasing time, submittal approval, material delivery, equipment fabrication, and similar time consuming factors.
- B. The Schedule shall include as a minimum, the earliest starting and finish dates, latest starting and finish dates, and the total float for each task or item. The General CONTRACTOR shall update (monitor) and rerun the Schedule at least monthly and shall submit to the Engineer both the Network and Computer print-out at the same time the pay estimate is prepared. The Schedule shall contain all of the items of the Periodic Estimate and Pay Schedule.
- C. Following receipt and preliminary approval by the ENGINEER of the General CONTRACTOR's CPM Schedule, copies will be sent to the other CONTRACTORS for their comments. A preconstruction conference will then be held between the OWNER, ENGINEER and all involved CONTRACTORS to review and, if necessary, revise the Schedule to afford all CONTRACTORS ample time to perform their work in the proper sequence of construction operations. In case of disputes between CONTRACTORS over allotted time for

various items of work, the ENGINEER shall decide and his decision shall be final and binding on all. The ENGINEER shall give final approval to the CPM Schedule before any construction is begun.

- D. The monthly Schedule update (monitoring) shall include the following items:
  - 1. Network
    - a. Identify activities that are completed or in process by contrasting heavy lines. Each activity worked on should be proportional to the percentage of progress achieved to date.
    - b. Identify restraints imposed by material deliveries, precedent activity durations or schedule adjustments on the monthly update of the Network.
  - 2. Computer Print-out
    - a. Show the percentage progress status of each activity. The percentage progress status will be used to support each CONTRACTOR's periodic pay estimate.
    - b. Show actual start and completion dates.
    - c. Flag all activities started and in progress.
  
- E. Supplemental to the Critical Path Schedule, each CONTRACTOR shall provide a detailed work schedule, projected at least a month in advance. The implementation of the work schedule and the coordination required will constitute the basic agenda of the coordination and planning meetings.

#### 1.9 PROFESSIONAL ENGINEER (P.E.) CERTIFICATION FORM

- A. If specifically required in other related Sections, submit a P.E. Certification for each item required, in the form attached to this Section, completely filled in and stamped.

#### 1.10 GENERAL PROCEDURES FOR SUBMITTALS

- A. Coordination of Submittal Times: Prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work of other related Sections, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery and similar sequenced activities. No extension of time will be authorized because of the CONTRACTOR's failure to transmit submittals sufficiently in advance of the Work.

END OF SECTION



SECTION 01 55 00

VEHICULAR ACCESS AND PARKING

PART 1 GENERAL

1.01 GENERAL

- A. All Streets shall be kept open for the passage of traffic during the construction period unless otherwise approved by the ENGINEER and authority having jurisdiction over the same.
  - 1. CONTRACTOR shall obtain all permits required by State or local authorities.
  - 2. CONTRACTOR shall maintain access for emergency vehicles at all times.
- B. When required to cross, obstruct or temporarily close a street, CONTRACTOR shall provide and maintain detours for the accommodation of traffic. Closings shall be for the shortest time practical, and passage shall be restored immediately after completion of backfill and temporary paving or plating.
- C. CONTRACTOR shall be responsible to contact all local authorities and utilities at least two (2) weeks prior to commencement of work. Local authorities include but are not limited to police, fire, gas, electric, telephone, TV cable, water, sewer, traffic and street department. CONTRACTOR shall be responsible to keep all above apprised of Work schedule, actual progress, etc.
- D. CONTRACTOR shall give reasonable notice to owners or tenants of private property and commercial or industrial facilities who may be affected by CONTRACTOR'S operations.
- E. CONTRACTOR shall take all means necessary to prevent accidents. CONTRACTOR shall provide signs, signals, barricades, flares, lights, and all other equipment, service, and personnel required to regulate and protect all traffic, and warn of hazards. All such work shall conform to requirements of the Warren County Engineers Office and the Ohio Department of Transportation or authority having jurisdiction and be provided in accordance with ODOT Manual of Uniform Traffic Control Devices, Construction and Maintenance Operations. Remove temporary equipment and facilities when no longer required, restore grounds to original, or to specified conditions.
- F. CONTRACTOR shall provide dust control in accordance with Section 01 57 00.

1.02 TRAFFIC SIGNALS AND SIGNS

- A. Provide and operate traffic control and directional signals required to direct and maintain orderly flow of traffic in all areas under CONTRACTOR'S control or affected by CONTRACTOR'S operations.
- B. Provide traffic control and directional signs, mounted on barricades or standard posts:
  - 1. At each change of direction of a roadway and at each crossroad.
  - 2. At detours and hazardous areas.
  - 3. At parking areas.
  - 4. As required by approved permit or authority having jurisdiction.

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1.03 FLAGMEN

- A. Provide qualified and suitably equipped flagmen, including STOP/SLOW paddles, when construction operations encroach on traffic lanes or prevent adequate sight distance, as required for regulation of traffic and in accordance with the requirements of the authority having jurisdiction.

1.04 FLARES AND LIGHTS

- A. Provide flares and lights during periods of low visibility:
  - 1. To clearly delineate traffic lanes, to guide traffic and to warn of hazardous areas.
  - 2. For use by flagmen in directing traffic.
- B. Provide illumination of critical traffic and parking areas.

1.05 PARKING CONTROL

- A. Control all construction related vehicular parking within the limits of Work to preclude interference with public traffic or parking, access by emergency vehicles, OWNER'S operations, or construction operations. Provide temporary parking facilities for the public as may be required because of construction or operations.
- B. Monitor parking of all construction and private vehicles:
  - 1. Maintain free vehicular access to and through parking areas.
  - 2. Prohibit parking on or adjacent to access roads or in non-designated areas.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

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## SECTION 01 57 00

### TEMPORARY CONTROLS

#### PART 1 GENERAL

##### 1.01 DESCRIPTION OF REQUIREMENTS

- A. CONTRACTOR shall provide and maintain methods, equipment, and temporary construction, as required to provide controls over environmental conditions at the construction site and adjacent areas. Remove physical evidence of temporary facilities at completion of the Work.
- B. CONTRACTOR shall obtain all City, County and State permits required for the construction of all Work, including Hazardous Material Management, Earth Moving/Dust Control and Stormwater Pollution Prevention Permits.

##### 1.02 NOISE CONTROL

- A. CONTRACTOR'S vehicles and equipment shall be such as to minimize noise to the greatest degree practicable. Noise levels shall conform to the latest OSHA standards and in no case will noise levels be permitted which interfere with the Work of the OWNER or others.

##### 1.03 DUST CONTROL

- A. CONTRACTOR shall be responsible for controlling objectionable dust caused by CONTRACTOR'S operation of vehicles and equipment, clearing or for any reason whatever. CONTRACTOR shall apply water or use other methods subject to the ENGINEER'S approval, which will keep dust in the air to a minimum.

##### 1.04 PEST AND RODENT CONTROL

- A. Provide rodent and pest control as required to prevent infestation of construction or storage areas.
  - 1. Employ methods and use materials that will not adversely affect conditions at the Site or on adjoining properties.

##### 1.05 WATER CONTROL

- A. Provide methods to control surface water and water from excavations and structures to prevent damage to the Work, the Site, or adjoining properties.
  - 1. Control fill, grading and ditching to direct water away from excavations, pits, tunnels and other construction areas and to direct drainage to proper runoff courses so as to prevent any erosion, damage or nuisance.
- B. Provide, operate and maintain equipment and facilities of adequate size to control surface water.
- C. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to any portion of the Site or to adjoining areas and in conformance with all environmental requirements.

##### 1.06 POLLUTION CONTROL

- A. Provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.

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- B. Provide equipment and personnel, perform emergency measures required to contain any spillages, and to remove contaminated soils or liquids.
  - 1. Excavate and dispose of any contaminated earth offsite, and replace with suitable compacted fill and topsoil.
- C. Take special measures to prevent harmful substances from entering public waters.
  - 1. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams, or in sanitary or storm sewers.
- D. Provide systems for control of atmospheric pollutants.
  - 1. Prevent toxic concentrations of chemicals.
  - 2. Prevent harmful dispersal of pollutants into the atmosphere.
- E. All CONTRACTOR'S equipment used during construction shall conform to all current federal, state and local laws and regulations.

#### 1.07 EROSION CONTROL

- A. Plan and execute construction and earth work by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.
  - 1. Hold the areas of bare soil exposed at one time to a minimum.
  - 2. Provide temporary control measures such as berms, dikes and drains.
- B. Construct fills and waste areas by selective placement to eliminate surface silts or clays which will erode.
- C. Periodically inspect earthwork to detect any evidence of the start of erosion; apply corrective measures as required to control erosion.
- D. Coordinate erosion control requirements with the requirements of Article 1.05, above.

END OF SECTION

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SECTION 01 77 00  
CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
  - 1. Closeout procedures.
  - 2. Final cleaning.
  - 3. Adjusting.
  - 4. Project record documents.
  - 5. Spare parts and maintenance materials.

1.02 RELATED WORK

- A. Warranties and Bonds are included in Section 01 78 00.

1.03 RECORD DOCUMENTS

- A. Maintain on site, one set of the following documents; actual revisions to the work shall be recorded in these documents:
  - 1. Contract Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other Modifications to the Contract.
  - 5. Reviewed shop drawings, product data, and samples.
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
  - 1. Manufacturer's name and product model and number.
  - 2. Product substitutions or alternates utilized.
  - 3. Changes made by Addenda and Modifications.
- E. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
  - 1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  - 2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
  - 3. Field changes of dimension and detail.
  - 4. Details not on original Contract Drawings.
- F. Submit documents to Engineer with Application for Final Payment.

1.04 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, work has been inspected and that work is complete in accordance with Contract Documents and ready for



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Engineer's inspection.

- B. Provide submittals to Engineer that are required by governing or other authorities.
- C. Submit Application for Final Payment identifying total adjusted Contract Sum, previous payments and sum remaining due.

#### 1.05 FINAL CLEANING

- A. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.
  - 1. Remove labels that are not permanent labels.
  - 2. The installing Prime Contractor shall clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compound and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
  - 3. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances. Leave concrete floors broom clean.
  - 4. The installing Prime Contractor shall wipe surface of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean light fixtures.
  - 5. Clean the site of rubbish, litter and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.

#### 1.06 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

END OF SECTION

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## SECTION 01 78 00

### WARRANTIES AND BONDS

#### PART 1 GENERAL

##### 1.01 SCOPE OF WORK

- A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.

##### 1.02 RELATED WORK

- A. Refer to Conditions of Contract for the general requirements relating to warranties and bonds.
- B. General closeout requirements are included in Section 01 77 00 Closeout Procedures.
- C. Specific requirements for warranties for the work and products and installations that are specified to be warranted, are included in the individual Sections of Division 2 through 33.

##### 1.03 SUBMITTALS

- A. Submit written warranties to the OWNER prior to the date fixed by the ENGINEER for Substantial Completion. If the Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the work, or a designated portion of the work, submit written warranties upon request of the OWNER.
- B. When a designated portion of the work is completed and occupied or used by the OWNER, by separate agreement with the CONTRACTOR during the construction period, submit properly executed warranties to the OWNER within 15 days of completion of that designated portion of the Work.
- C. When a special warranty is required to be executed by the CONTRACTOR, or the CONTRACTOR and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the ENGINEER for approval prior to final execution.
- D. Refer to individual Sections of Divisions 2 through 33 for specific content requirements, and particular requirements for submittal of special warranties.
- E. At Final Completion compile two copies of each required warranty and bond properly executed by the CONTRACTOR, or by the CONTRACTOR, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- F. Bond warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents and sized to receive 8-1/2-in by 11-in paper.

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- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the Section in which specified and the name of the product or work item.
- H. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address and telephone number of the installer, supplier and manufacturer.
- I. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS", the project title or name and the name, address and telephone number of the CONTRACTOR.
- J. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

#### 1.04 WARRANTY REQUIREMENT

- A. Related Damages and Losses: When correcting warranted work that has failed, remove and replace other work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted work.
- B. Reinstatement of Warranty: When work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that work covered by a warranty has failed, replace or rebuild the work to an acceptable condition complying with requirements of Contract Documents. The CONTRACTOR is responsible for the cost of replacing or rebuilding defective work regardless of whether the OWNER has benefited from use of the work through a portion of its anticipated useful service life.
- D. OWNER's Recourse: Written warranties made to the OWNER are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the OWNER can enforce such other duties, obligations, rights, or remedies.
- E. Rejection of Warranties: The OWNER reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the contract Documents.
- F. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the CONTRACTOR of the warranty on the work that incorporates the products, nor does it relieve suppliers, manufacturers and subcontractors required to countersign special warranties with the CONTRACTOR.
- G. Separate Prime Contracts: Each Prime CONTRACTOR is responsible for warranties related to its own Contract.

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1.05 DEFINITIONS

- A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the OWNER.
- B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the OWNER.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

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## SECTION 31 00 00

### EARTHWORK

#### PART 1 GENERAL

##### 1.00 STATUTORY REQUIREMENTS

- A. All excavation, trenching, sheeting, bracing, etc. shall comply with the requirements of OSHA excavation safety standards (29 CFR Part 1926.650 Subpart P) and any State and local requirements. Where conflict between OSHA, State, and local regulations exists, the most stringent requirements shall apply.

##### 1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment, and incidentals required and perform all excavation work and grading; place and compact backfill and fill; and dispose of unsuitable, waste, and surplus materials as shown on the Drawings and as specified herein.
- B. Provide the services of a licensed professional engineer, registered in the State in which the work is located, to prepare temporary excavation support system designs and submittals.
- C. Furnish and install temporary excavation support systems, including sheeting, shoring, and bracing, to ensure the safety of personnel and protect adjacent structures, piping, etc., in accordance with Federal, State, and local laws, regulations, and requirements.

##### 1.02 RELATED WORK

- A. Site Clearing is included in Section 31 10 00.
- B. Dewatering is included in Section 31 23 19.
- C. Excavation and Fill is included in Section 31 23 00.
- D. Erosion and Sedimentation Controls are included in Section 31 25 00.

##### 1.03 SUBMITTALS

- A. Excavation support system designs shall be prepared by a licensed professional engineer, registered in the State in which the work is located, and having a minimum of 5 years of professional experience in the design and construction of excavation support systems. Submit an original and three copies of the licensed professional engineer's certification stating that the excavation support systems designs have been prepared by the professional engineer. Do not submit excavation support system designs unless requested in writing. Review of any information requested will be for information only. The CONTRACTOR shall remain responsible for the safety and adequacy of construction means and methods.

##### 1.04 REFERENCE STANDARDS

- A. American Society for Testing and Materials (ASTM)

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1. ASTM D698 - Test Method for Laboratory Compaction Characteristics of Soils Using Standard Efforts
2. ASTM D1557 - Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort

B. Where reference is made to one of the preceding standards, the revision in effect at the time of bid opening shall apply.

#### 1.05 QUALITY ASSURANCE

A. At all structures, prior to the placement of bedding material, concrete work mats, structural fill, or structural concrete, coordinate with the soils testing laboratory to verify the suitability of the existing subgrade soil and to perform in-place soil density tests as required to verify that the bearing capacity of the subgrade is sufficient.

B. Prior to and during the placement of backfill and fill, coordinate with the soils testing laboratory to perform in-place soil density tests to verify that the backfill/fill material has been compacted in accordance with the compaction requirements specified elsewhere. The ENGINEER may designate areas to be tested. Provide at least one density and moisture content test for each 2,500-ft<sup>2</sup> of surface area for each lift of backfill and fill.

#### 1.06 DEFINITIONS

A. Where the phrase "in-the-dry" is used in this Section, it shall be defined to mean a soil condition such that the in-place moisture content of the soil is no more than 2 percentage points above the optimum moisture content of that soil as determined by the laboratory test of the moisture-density relationship appropriate to the specified level of compaction.

B. Where used in this Section, "structures" refers to all buildings, wet wells, manholes, and below grade vaults. Stormwater structures and duct banks are not considered structures in this context.

### PART 2 PRODUCTS

#### 2.01 GENERAL

A. Granular fill materials designated for use in this Section are specified in Section 31 23 00.

B. Flowable fill, "controlled low strength fill" (CLSF) is specified in Section 31 23 23.33.

C. Timber used for excavation support systems shall be pressure treated with wood preservative for ground contact.

### PART 3 EXECUTION

#### 3.01 PREPARATION

A. Test Pits

1. Perform exploratory excavation work (test pits) to verify the location of underground utilities and structures and to check for unknown utilities and structures, prior to commencing excavation work.

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2. Backfill test pits as soon as the desired information has been obtained. Backfilled surfaces shall be stabilized in accordance with approved erosion and sedimentation control plans.

B. Dewatering and Drainage Systems

1. Temporary dewatering and drainage systems shall be in place and operational prior to beginning excavation work.

3.02 EXCAVATION SUPPORT

- A. Furnish, install, monitor and maintain excavation support (e.g., shoring, sheeting, bracing, trench boxes, etc.) as required by Federal, State, or local laws, ordinances, regulations, and safety requirements. Support the sides of excavation, to prevent any movement that could in any way reduce the width of the excavation below that necessary for proper construction and protect adjacent structures from undermining, settlement, or other damage. Take care to prevent the formation of voids outside of sheeting. If voids occur behind sheeting, immediately backfill and compact the voids with common fill material. Voids in locations that cannot be properly compacted upon backfilling shall be filled with lean concrete.

- B. Install excavation supports outside the neat lines of foundations. Supports shall be plumb and securely braced and tied in position. Excavation support shall be adequate to withstand all pressures to which the supports will be subjected. Any movement or bulging of supports shall be corrected to provide the necessary clearances, dimensions, and structural integrity.

C. Excavation Supports Left in Place

1. Excavation supports that are required to remain in place, if applicable, shall be as indicated on the Drawings or as specified.
  - a. No sheeting shall be withdrawn if driven below mid-diameter of any pipe.
  - b. Under no circumstances shall any sheeting be cut off at a level lower than 1-ft above the top of any pipe.
2. The OWNER or ENGINEER may direct that certain excavation supports remain in place, or be cut off at any specific elevation. If the materials are not shown or specified to be left in place, and if the CONTRACTOR believes that such a directive increases CONTRACTOR's cost and would thereby entitle CONTRACTOR to a change in contract cost, CONTRACTOR shall notify the ENGINEER in accordance with the applicable article(s) in the General Conditions pertaining to changes in the work. Payment, if made, shall be in accordance with Article 11 of the General Conditions.
3. The right of the OWNER or ENGINEER to direct that certain excavation supports remain in place shall not be construed as creating any obligation on the OWNER or ENGINEER to give such direction, nor shall failure to give such direction relieve the CONTRACTOR from liability for damages to persons or property occurring from or upon the work occasioned by negligence or otherwise, growing out of a failure on the part of the CONTRACTOR to leave in place sufficient excavation supports to prevent any movement of the ground or damage to adjacent structures.

- D. Excavation supports shall be carefully removed in such manner so as not to endanger the Work or other adjacent structures, utilities, or property. All voids left or caused by withdrawal of supports shall be immediately filled with sand and compacted.

3.03 STRUCTURAL EXCAVATION PROCEDURES

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- A. Excavations for structures shall be suitably wide for construction of the structures, including excavation supports, dewatering, and drainage systems and working clearances.
- B. Excavation shall be performed in-the-dry and shall be accomplished by methods that preserve the undisturbed state of subgrade soils. Drainage and dewatering systems shall be in place and operational prior to beginning excavation work. In no case shall the earth be plowed, scraped, or excavated by any means that would disturb the finished subgrade. Hand excavation of the final 3- to 6-in may be required to obtain a satisfactory, undisturbed subgrade. Subgrade soils that become soft, loose, "quick," or otherwise unsatisfactory for support of structures as a result of inadequate excavation, dewatering, or other construction methods shall be removed and replaced with lean concrete, compacted structural fill, or suitable crushed rock, subject to prior approval by the ENGINEER, at no additional cost to the OWNER.
- C. Subgrade Preparation
  - 1. At areas below, or within 10-ft of structures:
    - a. Compact the top 12-in of subgrade to a minimum of 95 percent modified proctor (ASTM D1557).
  - 2. Where existing subgrade contains a significant amount of clay or cohesive soils, over-excavate sufficiently below the bottom of structure for placement of a lean concrete working mat. Prior to placing the lean concrete working mat, compact the top 12-in of existing subgrade to a minimum of 95 percent modified proctor (ASTM D1557).
- D. When excavations have reached the required subgrade, including any allowances for working mats or base materials, but before to the placement of working mats or base materials, notify the ENGINEER to observe the suitability of the existing subgrade soils for the anticipated foundations and structural loadings. If the existing subgrade soils are determined to be unsuitable, direction will be provided by the ENGINEER regarding removal and replacement with suitable materials. If CONTRACTOR believes that such direction would increase CONTRACTOR's cost and would thereby entitle CONTRACTOR to a change in Contract cost, CONTRACTOR shall notify the ENGINEER in accordance with the applicable article(s) in the General Conditions pertaining to changes in the work.
- E. Over-excavation beyond the limits and depths required by the Contract Documents shall be replaced by lean concrete, structural fill, or other material approved by the ENGINEER. Such replacement shall be made at no additional cost to the OWNER.

### 3.04 GENERAL FILLING AND BACKFILLING PROCEDURES

- A. Fill and backfill materials shall be placed in lifts to suit the specified compaction requirements to the lines and grades required, making allowances for settlement and placement of cover materials (i.e. topsoil, sod, etc.). Soft spots or uncompacted areas shall be corrected.
- B. Fill and backfill materials shall not be placed on deteriorated or frozen surfaces, or on surfaces covered by water, snow, or ice. Fill and backfill material shall be free of snow, ice, and frozen earth.
- C. Compaction in open areas may be accomplished by any of the following methods: compaction equipment, fully loaded ten wheel trucks, tractor dozers weighing at least 30,000-lb and operated at full speed, or heavy vibratory rollers. Compaction in confined areas (including areas within a 45 degree angle extending upward and outward from the base of a wall) and in areas where the use of large equipment is impractical, shall be accomplished by hand operated



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vibratory equipment or mechanical tampers. Lift thickness shall not exceed 6-in (measured before compaction) when hand operated equipment is used.

- D. Fill and backfill shall not be placed and compacted when the materials are too wet to properly compact (i.e. the in-place moisture content of the soil at that time is no more than 3 percentage points above the optimum moisture content of that soil as determined by the laboratory test of the moisture-density relation appropriate to the specified level of compaction).
- E. Do not backfill against walls or grade beams until the structures bracing them at the top and bottom have been installed and, in the case of cast-in-place concrete, have achieved their minimum 28-day compressive strength.
- F. Place fill so that depth is increased uniformly and gradually around the structure.

### 3.05 FILL AND BACKFILL PROCEDURES

- A. Fill and backfill material placed immediately adjacent to and within 10-ft of all structures shall be select fill unless otherwise shown on the Drawings. All structure water-tightness tests and damp-proofing/waterproofing shall be completed prior to placing fill or backfill around structures. Place and compact select fill in even lifts of 6-in (measured before compaction) uniformly around the structure.
- B. Common fill may be used in areas beyond those designated for select fill unless shown or specified otherwise. Common fill shall be placed in even lifts having a maximum thickness (measured before compaction) of 12-in.
- C. Fill required beneath foundations, building slabs or slabs on grade (except sidewalks) shall be structural fill. Place structural fill in even lifts of 6-in (measured before compaction) and compact.

### 3.06 EMBANKMENT FILL PROCEDURES

- A. Prior to placing embankment fill materials, all topsoil and organic materials (including peat and loam) and loose inorganic silt material (loess) shall be removed from areas beneath the embankments. If the subgrade slopes are excessive, the subgrade shall be stepped to produce a stable, horizontal surface for the placement of embankment materials. The existing subgrade shall then be scarified to a depth of at least 6-in. Adjust the moisture content of the scarified zone to slightly over optimum, and compact the subgrade to the relative density specified.
- B. Embankment fill shall consist of common fill material and shall be placed and compacted in even lifts of 12-in measured before compaction.
- C. Rock may be used in embankment fill only with prior, written approval of the ENGINEER.

### 3.07 IMPERVIOUS FILL

- A. Impervious fill shall be placed in controlled, even lifts having a maximum thickness (measured before compaction) of 6-in. Compaction shall be sufficient to attain a permeability of less than  $1 \times 10^{-7}$  cm/sec.

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- B. Moisture content of impervious fill to be compacted shall be maintained at or near its optimum moisture content (minus 2 to plus 3 percent).

### 3.08 COMPACTION REQUIREMENTS

- A. Beneath foundations and slabs on grade (except sidewalks): Compact the top 12-in of existing subgrade (and each layer of fill if applicable) to a minimum of 95 percent modified proctor (ASTM D1557) at or near its optimum moisture content (minus 2 to plus 3 percent).
- B. 10-ft around structures: Compact the top 12-in of existing subgrade and each layer of fill or backfill to a minimum of 92 percent modified proctor (ASTM D1557) at or near its optimum moisture content (minus 2 to plus 3 percent).
- C. Embankments (except under roadways), lawn or unimproved areas: Compact the top 6-in of existing subgrade and each layer of fill or backfill to a minimum of 92 percent standard proctor (ASTM D698) at or near its optimum moisture content (minus 1 to plus 4 percent).
- D. Sidewalks: Compact the top 6-in of existing subgrade (and each 6-in layer of fill if applicable) to a minimum of 95 percent modified proctor (ASTM D1557) at or near its optimum moisture content (minus 2 to plus 3 percent).
- E. Roads, paved areas, and roadway embankments: Compact the top 12-in of existing subgrade and each layer of fill or backfill to a minimum of 95 percent modified proctor (ASTM D1557) at or near its optimum moisture content (minus 2 to plus 3 percent).

### 3.09 DISPOSAL OF UNSUITABLE, WASTE, AND/OR SURPLUS EXCAVATED MATERIAL

- A. Unsuitable, waste, and surplus excavated material shall be removed and disposed of offsite. Materials may be temporarily stockpiled in an area within the limits of construction that does not disrupt construction activities, create any nuisances or safety hazards, or otherwise restrict access to the work site.

### 3.10 GRADING

- A. Grading shall be performed to the lines and grades shown on the Drawings. All objectionable material encountered within the limits indicated shall be removed and disposed of. Subgrades shall be completely and continuously drained and dewatered throughout the grading process. Install temporary drains, drainage ditches, etc., to intercept or divert surface water that may affect the execution or condition of grading work.
- B. If at the time of grading it is not possible to place any material in its proper section of the work, it shall be stockpiled in approved areas for later use. No extra payment will be made for the stockpiling or double handling of excavated material.
- C. Stones or rock fragments larger than 4-in in their greatest dimensions will not be permitted within the top 6-in of the finished grade of fills and embankments.
- D. In cut areas, all loose or protruding rocks in slopes shall be removed to line or finished grade of the slope. All cut and fill slopes shall be uniformly dressed to the slope, cross-section, and alignment shown on the Drawings unless otherwise directed by the ENGINEER.

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### 3.11 RIPRAP AND SLOPE STABILIZATION

- A. Prior to installation of riprap, install erosion control blankets on slopes in accordance with manufacturer's instructions. The area to be covered shall be properly prepared, before the blanket is applied. When the blanket is unrolled, the netting shall be on top and the fibers in contact with the soil over the entire area. Blankets shall be butted snugly at the ends and side and stapled. Blankets shall be placed a minimum of three rows (of four foot) wide (total 12-ft width) and stapled together in accordance with manufacturer's instructions. Staples shall be driven vertically into the ground, spaced approximately two linear yards apart, on each side and one row in the center alternately spaced between each side. Adjoining blankets shall not be overlapped and shall utilize a common row of staples to attach.
- B. Riprap shall be placed in conjunction with the construction of the embankment with only sufficient lag in the construction of the riprap protection as may be necessary to allow for proper construction of the portion of the embankment protected and to prevent mixture of embankment and riprap material. Bank run gravel shall be placed and graded to a depth of 6-in to obtain a continuous uninterrupted bed of the required thickness within the required limits. It shall be compacted by a minimum one coverage by a crawler-type tractor with a total weight, including blade and equipment, of not less than 30,000 lbs.
- C. Riprap shall be hand-placed (not dumped) on the compacted gravel bed. Stones shall be laid so that the maximum dimension is perpendicular to the bed. Stones shall be placed so that the weight of each stone is carried by the underlying material and not by the adjacent stones. Large stones shall be placed at the bottom of the slope. Spaces between stones shall be filled with spalls of suitable size to construct a solid, stable slope, free from large voids and defects which might not protect embankments against erosion.

END OF SECTION

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## SECTION 31 10 00

### SITE CLEARING

#### PART 1 GENERAL

##### 1.01 DESCRIPTION

###### A. Scope:

1. CONTRACTOR shall provide all labor, materials, equipment and incidentals required to perform all clearing and grubbing as shown and as specified herein. CONTRACTOR shall pay for all disposal fees.

###### B. Related Sections:

1. Section 31 23 00, Excavation and Fill
2. Section 32 92 00, Turf and Grasses

- ###### C. The Work covered by this Section consists of removing and disposing of all trees, stumps, bush, roots, shrubs, vegetation, logs, rubbish and other objectionable material from the Site, as required to perform the Work.

##### 1.02 QUALITY ASSURANCE

- ###### A. Codes and Standards: State and local laws and code requirements shall govern the hauling and disposal of trees, shrubs, stumps, roots, rubbish, debris and other matter.

##### 1.03 JOB CONDITIONS

###### A. Protection:

1. Streets, roads, adjacent property and other work and structures shall be protected throughout the entire Project. CONTRACTOR shall return to original condition, satisfactory to the ENGINEER, damaged facilities caused by CONTRACTOR'S operations.
2. Trees, shrubs and grassed areas which are to remain shall be protected by fences, barricades, wrapping or other methods as shown, specified or approved by the ENGINEER. Equipment, stockpiles, etc. shall not be permitted within tree branch spread. Trees shall not be removed without approval of the ENGINEER, unless shown or specified.

###### B. Salvable Improvements:

1. Unless specified elsewhere, carefully remove items to be salvaged and store on premises in approved location, all in accordance with recommendations of specialists recognized in the Work involved.

##### 1.04 GUARANTEE

- ###### A. Unless specified elsewhere, carefully remove items to be salvaged and store on premises in approved location, all in accordance with recommendations of specialists recognized in the Work involved.

#### PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 CLEARING AND GRUBBING

- A. Limits of clearing shall be all areas within the Construction limits (inside existing right-of-ways or inside permanent easements obtained for this construction), except as otherwise shown. Damage outside these limits caused by CONTRACTOR'S operations shall be corrected at CONTRACTOR'S expense.
- B. Except as noted below, CONTRACTOR shall remove from the Site and satisfactorily dispose of all trees, shrubs, stumps, roots, brush, masonry, rubbish, scrap, debris, pavement, curbs, fences and miscellaneous other structures not covered under other Sections as shown, specified or otherwise required to permit construction of the Work.
- C. Trees, stumps and other cleared and grubbed material shall be disposed of off-site by CONTRACTOR, except as approved by the ENGINEER, in writing. No cleared or grubbed material may be used in backfills or structural embankments.
- D. Burning on-site shall not be done, unless approved by OWNER and authorities having jurisdiction.
- E. In order to avoid additional removal or damage, existing trees and shrubs shall be trimmed as required. Trimmed or damaged trees shall be treated and repaired by persons with experience in this specialty who are approved by ENGINEER. Trees and shrubs intended to remain, that are damaged beyond repair or removed, shall be replaced by CONTRACTOR, at no additional cost to the OWNER.
- F. Control air pollution caused by dust and dirt, and comply with governing regulations.

3.02 TOPSOIL REMOVAL

- A. Topsoil is defined as friable clay loam surface soil found in a depth of not less than 4-inches. Topsoil shall be substantially free of subsoil, clay lumps, stones, and other objects over 2-inches in diameter, and without weeds, roots, and other objectionable material as determined by the ENGINEER.
- B. Strip topsoil which is satisfactory to whatever depths are encountered, and in such manner as to prevent intermingling with the underlying subsoil or other objectionable material. Remove heavy growths of grass from areas before stripping.
  - 1. Where trees are shown or directed by ENGINEER, in writing, to be left standing, stop topsoil stripping a sufficient distance from such trees to prevent damage to the main root system.
- C. Stockpile topsoil in storage piles in areas shown, or where otherwise approved by ENGINEER. Construct storage piles to freely drain surface water. Cover storage piles if required to prevent windblown dust. Topsoil in excess of quantity required shall remain property of OWNER.

3.03 ENVIRONMENTAL PROTECTION AND RESTORATION

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- A. The CONTRACTOR shall take all measures necessary or required to protect streams, ditches, drainage structures and designated wetland areas subject to potential runoff and silting in or near the work area. The CONTRACTOR shall provide all equipment and materials necessary to provide the above protection at no additional cost to the OWNER.
- B. Control air pollution caused by dust and dirt and comply with governing regulations.

END OF SECTION

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SECTION 31 23 00

EXCAVATION AND FILL

PART 1 GENERAL

1.00 SUMMARY

A. Scope:

1. CONTRACTOR shall provide all labor, materials, equipment and incidentals required to perform all excavating, backfilling, filling and grading, and disposing of earth materials as shown, specified, and required for construction of structures, manholes, vaults, conduits, pipelines, roads, and other facilities required to complete the Work in every respect.
2. Also included is earthwork for roads, walks, grading, drainage ditches, structures and other facilities which are required to complete the Work as shown and specified.
3. All necessary preparation of subgrade for slabs and pavements is included.
4. All temporary means needed to prevent discharge of sediment to water courses from dewatering systems or erosion are included.
5. No classification of excavated materials will be made. Excavation includes all materials regardless of type, character, composition, moisture, or condition thereof, except rock which is under Section 31 23 16.26, Rock Removal.

B. Related Sections:

1. Section 31 10 00, Site Clearing
2. Section 31 23 19, Dewatering.
3. Section 31 23 16.26, Rock Removal.
4. Section 32 90 00, Site Restoration and Rehabilitation

C. Schedule of Operations:

1. No more than 50 feet of trench may be opened in advance of pipe laying at any one time. Trenches in rock shall be opened 30 feet in advance of any place where pipe is being laid.
2. Along public streets, all uncompleted main line, service line, excavation, installation and backfill shall be completed and confined to one block not to exceed 600 feet of street.
3. In private property, the length of uncompleted work must be held to the absolute minimum and in no case over 300 feet, except for seeding and sodding which shall be done in proper season.
4. Where trench occurs parallel to any street or roadway centerline (parallel defined as the pipe making an angle between 0 to 40 degrees with the centerline), CONTRACTOR shall at end of each work week restore trench to finished grade and provide permanent or temporary pavement suitable for normal vehicular traffic. Pavements shall be as specified in Section 32 01 30.
5. Where a trench occurs perpendicular to any street or roadway centerline (perpendicular defined as the pipe making an angle of between 41 to 90 degrees with the centerline), CONTRACTOR shall restore trench to finished grade and provide permanent or temporary pavement suitable for normal vehicular traffic by the end of the work day on which the trench was initially opened. Pavements shall be as specified in Section 32 01 30.
6. Where a trench occurs across a driveway to a private residence or other property, the driveway shall be restored by the end of the work day for use by residence and owners.



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7. All excavations within public right-of-way limits shall be completely closed at all times when there is a delay in the progress of the work, and as specifically addressed in permits.
8. CONTRACTOR shall coordinate required pipe testing so as to not interfere with the above requirements.

#### 1.01 REFERENCES

- A. Standards referenced in this Section are listed below:
  1. American Society for Testing and Materials, (ASTM):
    - a. ASTM D 422, Method for Particle-Size Analysis of Soils.
    - b. ASTM D 427, Test Methods for Shrinkage Factors of Soils by the Mercury Method.
    - c. ASTM D698, Standard Proctor Test
    - d. ASTM D 1556, Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
    - e. ASTM D 1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft 16/cu ft) (2,700 KN-m/cum).
    - f. ASTM D 2166, Test Method for Unconfined Compressive Strength Of Cohesive Soils.
    - g. ASTM D 2922, Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
    - h. ASTM D 4318, Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils.
  2. Occupational Safety and Health Administration, (OSHA)

#### 1.02 QUALITY ASSURANCE

- A. Tests:
  1. OWNER may engage the services of a qualified testing laboratory to make tests and determine acceptability of all soil material.
- B. Permits and Regulations:
  1. CONTRACTOR shall obtain all necessary permits for work in roads, right-of-ways, railroads, etc. Comply with Section 01 55 00.
  2. CONTRACTOR shall obtain permits as required by local, state and federal agencies for discharging water from excavations to drainage structures, rivers and streams.
  3. CONTRACTOR shall perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.

#### 1.03 SUBMITTALS

- A. Excavation Plan: Prior to start of excavation operations, submit written plan to demonstrate compliance with OSHA Standard 29 CFR Part 1926.650. As a minimum, excavation plan shall include:
  1. Name of competent person.
  2. Excavation method(s) or protective system(s) to be used.
  3. Copies of "manufacturer's data" or other tabulated data if protective system(s) are designed on the basis of such data.

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- B. CONTRACTOR shall prepare drawings for the items listed below. Drawings shall be prepared by a Registered Professional ENGINEER recognized as expert in the specialty involved. Drawings shall be submitted to ENGINEER for record purposes only. Calculations shall not be submitted. Drawing submittals will not be checked and will not imply approval by ENGINEER of the Work involved. CONTRACTOR shall be solely responsible for designing, installing, operating and maintaining whatever system is necessary to satisfactorily accomplish all necessary sheeting, bracing, protection, underpinning and dewatering.
  - 1. Sheeting and bracing, or other protective system(s).
  - 2. Dewatering system.
  - 3. Protection methods anticipated.
- C. Samples: Submit samples of all select fill, gravel, base materials, and controlled density fill required and notify ENGINEER in writing of the sources.

#### 1.04 JOB CONDITIONS

- A. Existing Structures: The Drawings show certain surface and underground structures adjacent to the Work. This information has been obtained from existing records. It is not guaranteed to be correct or complete and is shown for the convenience of CONTRACTOR. CONTRACTOR shall explore ahead of the required excavation to determine the exact location of all structures. They shall be supported and protected from damage by CONTRACTOR. If they are broken or damaged, they shall be restored immediately by CONTRACTOR at his expense.
- B. Existing Utilities: Locate existing underground utilities in the areas of the Work. If utilities are to remain in place, provide adequate means of protection during all operations.
  - 1. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult piping or utility OWNER and ENGINEER immediately for directions as to procedure. Cooperate with OWNER and utility OWNER in keeping services and facilities in operation. Repair damaged utilities to satisfaction of utility OWNER.
  - 2. In general, service lines to individual houses and businesses are not shown; however, CONTRACTOR shall assume that a service exists for each utility to each house or business.
  - 3. Do not interrupt existing utilities serving facilities occupied and used by OWNER or others, except when permitted in writing by ENGINEER and then only after acceptable temporary utility services have been provided.
  - 4. Demolish and completely remove from the Site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off of services if lines are active.
- C. Use of Explosives:
  - 1. Do not bring explosives onto the Site or use in the Work without prior written permission from authorities having jurisdiction. Provide copy of authorization to ENGINEER. CONTRACTOR is solely responsible for handling, storage, and use of explosive materials when their use is permitted.
- D. Protection of Persons and Property: Barricade open excavations occurring as part of the Work and post with warning lights. Operate warning lights during hours from dusk to dawn each day and as otherwise required.
  - 1. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

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- E. Dust Control: Conduct all operations and maintain areas of activity, including watering of operations, sweeping and sprinkling of roadways, to minimize creation and dispersion of dust.
- F. Roadways and Walks: Unless otherwise approved by ENGINEER, excavated material and materials of construction shall be so deposited, and the Work shall be so conducted, as to leave open and free for pedestrian traffic all crosswalks, and for vehicular traffic a roadway not less than ten feet in width. All hydrants, valves, fire alarm boxes, letter boxes, and other facilities which may require access during construction shall be kept accessible for use. During the progress of the Work, CONTRACTOR shall maintain such crosswalks, sidewalks, and roadways in satisfactory condition and the Work shall at all times be so conducted as to cause a minimum of inconvenience to public travel, and to permit safe and convenient access to private and public property along the line of the Work.

## PART 2 – PRODUCTS

### 2.01 MATERIALS

- A. General: All fill materials shall be free of toxic contaminants.
- B. Gravel Backfill:
  - 1. Gravel Backfill shall be placed where shown or specified below and around structures, roads, walks, driveways, etc.
  - 2. Gravel backfill shall meet the requirements of ODOT Item 304.
- C. Controlled Density Fill (CDF) (Low Strength Mortar Backfill (LSM)):
  - 1. CDF backfill shall be placed when an open trench is located 3'-0" or less from the edge of roadway pavement or where specified on Drawings
  - 2. CDF backfill shall meet the requirements specified under Section 31 23 23.33.
- D. Backfill and Fill Materials: Provide approved soil materials for backfill and fill, free of clay lumps, rock or gravel larger than 6 inches in any dimension, debris, waste, frozen materials, vegetable and other deleterious matter. Refer to drawings for backfill requirements.
- E. Pipe Bedding Materials:
  - 1. All pipe shall be bedded with clean common fill.
  - 2. If clean common fill is unavailable or pipe is in rock all pipe shall be bedded with washed, crushed stone, slag, or gravel meeting the gradation requirements of ODOT Table 703-1 for size No. 6-8 aggregate. Bedding material shall be placed in accordance with Part 3 of this Section.
- F. Base Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, crushed slag, natural or crushed sand, approved by ENGINEER conforming to the gradation requirements of ODOT Item 304.
- G. Drainage Fill: Washed, uniformly graded mixture of crushed stone, or crushed or uncrushed gravel conforming to the gradation requirements for size No. 57 gravel.

## PART 3 EXECUTION

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### 3.01 INSPECTION

- A. Provide ENGINEER with sufficient notice and with means to examine the areas and conditions under which excavating, filling, and grading are to be performed. ENGINEER will notify CONTRACTOR, in writing, if conditions are found that may be detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected in an acceptable manner.
- B. All trench excavations shall be inspected by ENGINEER prior to laying pipe. Notify ENGINEER in advance of excavating, bedding and pipe laying operations.

### 3.02 TEST PITS

- A. Where shown or directed by ENGINEER, excavate and backfill, in advance of construction, test pits to determine conditions or location of existing facilities. Perform all Work required in connection with excavating, stockpiling, maintaining, sheeting, shoring, backfilling and replacing pavement for the test pits. Payment for this Work will be included in the unit or lump sum price bid for the excavation Work.

### 3.03 EXCAVATION

- A. Perform all excavation required to complete the Work as shown, specified and required. Excavations shall include earth, sand, clay, gravel, hardpan, boulders not requiring drilling and blasting for removal, decomposed rock, pavements, rubbish and all other materials within the excavation limits, except rock.
- B. Excavations for structures and pipelines shall be open excavations. Provide excavation protection system(s) required by ordinances, codes, law and regulations to prevent injury to workmen and to prevent damage to new and existing structures or pipelines. Unless shown or specified otherwise, protection system(s) shall be utilized under the following conditions.
  - 1. Excavation Less Than Five Feet Deep: Excavations in stable rock or in soil conditions where there is no potential for a cave-in may be made with vertical sides. Under all other conditions, excavations shall be sloped and benched, shielded, or shored and braced.
  - 2. Excavations Greater Than Five Feet Deep: Excavations in stable rock may be made with vertical sides. Under all other conditions, excavations shall be sloped and benched, shielded or shored and braced.
  - 3. Excavation protection system(s) shall be installed and maintained in accordance with drawings submitted under Article 1.4, above.
- C. Where the structure or pipeline is to be placed below the ground water table, well points, cofferdams or other acceptable methods to the ENGINEER shall be used to permit construction of said structure or pipeline under dry conditions. Dry conditions shall prevail until concrete has reached sufficient strength to withstand earth and hydrostatic loads and until the pipelines are properly jointed, tested and backfilled.
- D. Pumping of water from excavations shall be done in such a manner to prevent the carrying away of unconsolidated concrete materials, and to prevent damage to the existing subgrade.
- E. Pipe Trench Preparation:

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1. No more than 50 feet of trench may be opened in advance of pipe laying. Trenches in rock shall be fully opened 30 feet in advance of any place where pipe is being laid.
  2. Trench width shall be minimized to greatest extent practical but shall conform to the following:
    - a. Sufficient to provide room for installing, jointing and inspecting piping as shown on the drawings.
    - b. Enlargements at pipe joints may be made if required and approved by ENGINEER.
    - c. Sufficient for shoring and bracing, or shielding and dewatering.
    - d. Sufficient to allow thorough compaction of backfill adjacent to bottom half of pipe.
    - e. Do not use excavating equipment which requires the trench to be excavated to excessive width.
  3. Depth of trench shall be as shown. If required and approved by ENGINEER, in writing, depths may be revised.
- F. Material Storage: Stockpile satisfactory excavated materials in approved areas, until required for backfill or fill. Place, grade and shape stockpiles for proper drainage.
1. Locate and retain soil materials away from edge of excavations.
  2. Dispose of excess soil material and waste materials as specified hereinafter.
  3. Stockpiled excavated soils for use as subsequent fill shall be classified by laboratory as on-site granular or sandy clay soils. Use and placement of fill shall be performed as specified for each class.
  4. Excess soil from excavations shall be disposed of off-site. Disposal shall be in accordance with state and local regulatory requirements.
- G. Where ENGINEER considers the existing material beneath the bedding material unsuitable, CONTRACTOR shall remove and replace it with gravel backfill. The additional excavation and fill material, when ordered in writing by the ENGINEER, shall be installed in accordance with this Section. Payment of this work shall be as stated in Section 01 29 26.
- H. Trees, shrubs or plantings requiring trimming or protection shall be addressed well in advance of trench excavations to minimize damage to trees, shrubs, or plantings. Comply with Section 32 90 00.

### 3.04 UNAUTHORIZED EXCAVATION

- A. All excavation outside the lines and grades shown, and which is not approved by ENGINEER, together with the removal and disposal of the associated material shall be at CONTRACTOR'S expense. Unauthorized excavations shall be filled and compacted with select backfill by CONTRACTOR at his expense. Claims and damages resulting from CONTRACTOR'S unauthorized excavation will be the CONTRACTOR'S sole responsibility.

### 3.05 DRAINAGE AND DEWATERING

- A. General:
1. Prevent surface and subsurface water from flowing into excavations and from flooding adjacent areas.
  2. Remove water from excavations as fast as it collects.
  3. Maintain the ground water level below the bottom of the excavation to provide a stable surface for construction operations and to prevent damage to the Work during all stages of construction.

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4. Provide and maintain pumps, sumps, suction, and discharge lines and other dewatering system components necessary to convey water away from excavations. Adequate standby equipment in operating condition shall be maintained on site.
  5. Provide approved sediment traps when water is conveyed into water courses.
  6. Obtain ENGINEER'S approval before shutting down dewatering system for any reason.
  7. The CONTRACTOR shall provide and deliver to property owners clean potable water in quantities sufficient to supplement any wells affected by the dewatering operations at no extra cost to the OWNER.
- B. Disposal of Water Removed by Dewatering System:
1. Dispose of all water removed from the excavation in such a manner as not to endanger public health, property, or any portion of the Work under construction or completed and in accordance with all applicable federal, state and local laws, regulations and ordinances.
  2. Dispose of water in such a manner as to cause no inconvenience to OWNER, ENGINEER, or others involved in Work about the Site.
  3. Convey water from the construction Site in a closed conduit. Do not use trench excavations or any portion of the Work including pipe for temporary drainage.

### 3.06 SHEETING, SHORING, AND BRACING

A. General:

1. All municipal, county, state and federal ordinances, codes, regulations, and laws shall be observed.
2. Used material shall be in good condition, not damaged or excessively pitted. All steel or wood sheeting designated to remain in place shall be new. New or used sheeting may be used for temporary work.
3. All timber used for breast boards (lagging) shall be new or used, meeting them requirements for Douglas Fir Dense Construction grade with a bending strength not less than 1500 psi or Southern Pine No. 2 Dense.
4. All steel work for sheeting, shoring, bracing, cofferdams etc., shall be designed in accordance with the provisions of the "Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings", of the AISC, except that field welding will be permitted.
5. Steel sheet piling shall be manufactured from steel conforming to ASTM A 328. Steel for soldier piles, wales and braces shall be new or used and shall conform to ASTM A 36.
6. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation progresses.
7. Unless otherwise shown, specified, or directed, all materials used for temporary construction shall be removed when Work is completed. Such removal shall be made in a manner not injurious to the structure or its appearance or to adjacent Work.
8. Provide permanent steel sheet piling or pressure creosoted timber sheet piling wherever subsequent removal of sheet piling might permit lateral movement of soil under adjacent structures. Cut off tops, as required, and leave permanently in place.
9. The clearances and types of the temporary structures, insofar as they affect the character of the finished Work, and the design of sheeting to be left in place, will be subject to the approval of ENGINEER; but CONTRACTOR shall be responsible for the adequacy of all sheeting, shoring, bracing, coffer-damming, etc.
10. Safe and satisfactory sheeting, shoring and bracing shall be the entire responsibility of CONTRACTOR.

B. Sheeting Left in Place:

1. Steel sheet piling shown to be left in place shall consist of rolled sections of the continuous interlocking type, unless otherwise approved. The type and design of the sheeting and bracing shall conform to the above Specifications for all steel work for sheeting and bracing. Steel sheeting designated to be left in place shall be new.
  2. Steel sheet piling to be left in place shall be driven straight to the lines and grades as shown or directed. The piles shall penetrate into firm materials with secure interlocking throughout the entire length of the pile. Damaged piling having faulty alignment shall be pulled and replaced by new piling.
  3. The type of guide structure used and method of driving for steel sheet piling to be left in place shall be subject to the approval of ENGINEER. Jetting will not be permitted.
  4. Cut off piling left in place to the grades shown or directed by ENGINEER and remove the cut off pilings from the Site.
  5. Clean wales, braces and all other items to be embedded in the permanent structure, and ensure that the concrete surrounding the embedded element is sound and free from air pockets or harmful inclusions. Provisions shall include the cutting of holes in the webs and flanges of wale and bracing members, and the welding of steel diaphragm waterstops perpendicular to the centerline of brace ends which are to be embedded.
  6. Subsequent to removal of the inside face forms, and when removal of bracing is permitted, cut back steel at least 2-inches inside the wall face and patch opening with cement mortar. Concrete shall be thoroughly worked beneath wales and braces, around stiffeners and in any other place where voids may be formed.
  7. Portions of sheeting or soldier piles and breast boards which are in contact with the foundation concrete shall be left in place, together with wales and bracing members which are cast into foundation or superstructure concrete.
- C. Removal of Sheeting and Bracing: Remove sheeting and bracing from excavations, unless otherwise directed by ENGINEER, in writing. Removal shall be done so as to not cause injury to the Work. Removal shall be equal on both sides of excavation to ensure no unequal loads on pipe or structure.

### 3.07 BACKFILL AND COMPACTION

- A. All backfill required for trenches and structures and required to provide the finished grades shown and as described herein shall be furnished, placed, and compacted by the CONTRACTOR. Unless otherwise specified or required, fill shall be obtained from the excavated materials. All materials used for filling and backfilling shall be soil of acceptable quality, free from boulders, frozen lumps, wood, stumps, sludge, organic matter or other deleterious materials. Excavated materials meeting these requirements may be used as backfill.
- B. Backfill excavations as promptly as Work permits, but not until completion of the following:
1. Acceptance by the ENGINEER of all Work within the excavation.
  2. Inspection, testing, approval, and recording of locations of underground utilities, connections, branches, structures and other facilities.
  3. Removal of shoring and bracing, and backfilling of voids with satisfactory materials.
  4. Removal of trash and debris.
- C. Excavation shall be kept dry during backfilling operations. Backfills around piping and structures shall be brought up evenly on all sides.
- D. Pipe Bedding and Trench Backfill:

1. Buried Piping Installation shall be in accordance with Section 33 11 13.
2. Pipe bedding and trench backfill materials shall be placed in accordance with the following procedures and the details on the drawings.
3. Pipe Bedding:
  - a. Place pipe bedding material as specified in this Section in bottom of trench.
  - b. Depth of material shall be as shown in the details on the drawings.
  - c. Place material to grade and in such a manner as to completely support the pipe for its entire length
  - d. Thoroughly compact pipe bedding material using hand-operated tamping equipment.
  - e. Immediately after the joint has been made, bring the balance of the Pipe Bedding material up to the spring line of the pipe.
  - f. The material shall be placed in uniform lifts of six (6) inch layers on each side of the pipe, and thoroughly compacted by hand spading and tamping.
  - g. Care shall be taken to ensure that the material is thoroughly consolidated under the haunches of the pipe.
4. Trench Backfill:
  - a. From the spring line of the pipe, place backfill material as specified below by hand or approved mechanical methods.
  - b. Place material in a maximum of twelve (12) inch lifts to the extreme outer limits of the trench and thoroughly compact by hand tamping and spading or mechanical means as approved by the ENGINEER.
  - c. Special care shall be used so that the pipe is neither damaged nor displaced during this operation. Material shall not be shoveled, dumped or pushed from the top of the trench onto the pipe.
  - d. Backfill Material:
    - 1) For thermoplastic pipe (including composite PVC pipe), backfill material shall be approved Pipe Bedding material as specified in this Section placed to a depth of 6" over the crown of the pipe.
    - 2) For rigid pipe (ductile iron pipe), backfill material shall be approved backfill as specified on drawings placed to a depth of 6" over the crown of the pipe.
  - e. The balance of the backfill to the top of the trench shall be as follows:
    - 1) Trenches within three (3) feet of roadways, under roadways, and areas immediately adjacent thereto shall be backfilled with Controlled Density Fill, as specified in Section 31 23 23.33, where shown on the drawings, or otherwise required.
    - 2) Trenches within the right-of-way and outside the paved areas backfilled with excavated native material if approved by the ENGINEER, provided such material is free from rock, boulders, large stones, sticks, organic material and other similar undesirable materials as specified in Part 2 of this Section. Backfill shall be installed in twelve (12") inch maximum lifts.
    - 3) Trenches in other areas may be backfilled with excavated native material if approved by the ENGINEER, provided such material is free from rock, boulders, large stones, sticks, organic material and other similar undesirable materials as specified in Part 2 of this Section. Backfill shall be installed in twelve (12") inch maximum lifts.
    - 4) Trenches within rock shall be backfilled with ODOT 703 Granular Material. Backfill shall be installed in maximum twelve (12") lifts.
  - f. In unpaved areas, trenches backfilled with excavated material shall be brought up evenly to grade. When the top of the trench is at proposed grade, the material shall be neatly rounded over the top of the trench to allow for settlement. In areas of



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sodding, seeding or farmland the last six (6) inches of backfill material shall be topsoil.

- E. Compaction: All fill materials, fill, backfill, gravel backfill and pipe bedding, shall be compacted to one of the following limits:
  - 1. Pipe Bedding: Thoroughly compact by hand tamping.
  - 2. Pipe Trenches in open undeveloped areas: 90% Standard Proctor (ASTM D-698).
  - 3. Pipe Trenches below or within 1:1 influence limits of pavement or other structures: 95% Standard Proctor (ASTM D-698)
  - 4. Excavations for Structures, Chambers, Valves, Hydrants, or as directed by the ENGINEER: 95% Standard Proctor (ASTM D-698).
  - 5. All excavation bottoms shall be compacted to 95% Standard Proctor (ASTM D-698) prior to placing new work.
  - 6. Jetting as a means of compaction is only acceptable upon approval of the ENGINEER.

### 3.08 GRADING

- A. General: Uniformly grade areas within limits of grading under this Section, including adjacent transition areas. Smooth subgrade surfaces within specified tolerances, compact with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.
- B. Turf and Topsoil Areas: Finish areas to receive topsoil or special cover to within not more than 1-inch above or below the required subgrade elevations. Coordinate with the Work in Sections 32 92 00.
- C. Walks: Shape surface of areas under walks to line, grade and cross-section, with finish surface not more than 1-inch above or below the required subgrade elevation.
- D. Pavements: Shape surface of areas under pavement to line, grade and cross-section, with finish surface not more than 1/2-inch above or below the required subgrade elevation. Coordinate with the Work in Section 32 01 30.
- E. Slabs: Grade smooth and even, free of voids, compacted as specified, and to required elevation. Provide final grades within a tolerance of ¼ inch when tested with a 10 foot straightedge.
- F. The bottom and sides of all swales and ditches constructed as part of the Work shall be compacted to the satisfaction of the ENGINEER.

### 3.09 DISPOSAL OF EXCAVATED MATERIALS

- A. Material removed from the excavations which does not conform to the requirements for fill or is in excess of that required for backfill shall be hauled away from the Site by CONTRACTOR and disposed of in compliance with ordinances, codes, laws and regulations, at no additional cost to the OWNER.

### 3.10 TRENCH SHIELDS

- A. Excavation of earth material below the bottom of a shield shall not exceed the limits established by the ordinances, codes, laws, and regulations.

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- B. When using a shield for pipe installation, any portion of the shield that extends below the mid-diameter of an installed pipe shall be raised above this point prior to moving the shield ahead for the installation of the next length of pipe.
- C. When using a shield for the installation of structures, the bottom of the shield shall not extend below the top of the bedding for the structures.
- D. When a shield is removed or moved ahead, extreme care shall be taken to prevent the movement of pipe or structures or the disturbance of the bedding for pipe or structures. Pipe or structures that are disturbed shall be removed and reinstalled as specified.

### 3.11 ENVIRONMENTAL PROTECTION AND RESTORATION

- A. CONTRACTOR shall be responsible for complying with all regulatory requirements pertaining to environmental protection and restoration.

END OF SECTION

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## SECTION 31 23 19

### DEWATERING

#### PART 1 GENERAL

##### 1.00 STATUTORY REQUIREMENTS

- A. Obtain and pay for all permits required for temporary dewatering and drainage systems.
- B. Original permits shall be prominently displayed on the site prior to constructing dewatering and drainage systems.

##### 1.01 SCOPE OF WORK

- A. Furnish, install, operate, monitor, maintain and remove temporary dewatering and drainage systems as required and lower and maintain groundwater levels below subgrades of excavations. Prevent surface water runoff from entering or accumulating in excavations.
- B. Furnish the services of a licensed professional ENGINEER, registered in the State in which the work is located, to prepare dewatering and drainage system designs and submittals.
- C. Collect and properly dispose of all discharge water from dewatering and drainage systems in accordance with State and local requirements and permits.
- D. Repair damage caused by dewatering and drainage system operations.
- E. Remove temporary dewatering and drainage systems when no longer needed. Restore all disturbed areas.

##### 1.02 RELATED WORK

- A. Excavation and fill are included in Section 31 23 00.
- B. Erosion and Sedimentation controls are included in Section 31 25 00.

##### 1.03 SUBMITTALS

- A. Submit to the ENGINEER, in accordance with Section 01 33 00, the temporary dewatering and drainage system designs. Dewatering and drainage system designs shall be prepared by a licensed professional engineer, registered in the State in which the work is located, having a minimum of 5 years of professional experience in the design and construction of dewatering and drainage systems. Submittal will be for information only. CONTRACTOR remains responsible for adequacy and safety of construction means, methods and techniques.

##### 1.04 DEFINITIONS

- A. Where the phrase "in-the-dry" is used in this Section, it shall be defined as in situ soil moisture content of no more than two percentage points above the optimum moisture content for that soil.

#### PART 2 PRODUCTS (NOT USED)

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## PART 3 EXECUTION

### 3.01 GENERAL

- A. Control surface water and groundwater such that excavation to final grade is made in-the-dry, and bearing soils are maintained undisturbed. Prevent softening, or instability of, or disturbance to, the subgrade due to water seepage.
- B. Provide protection against flotation for all work.
- C. The impact of anticipated subsurface soil/water conditions shall be considered when selecting methods of excavation and temporary dewatering and drainage systems. Where groundwater levels are above the proposed bottoms of excavations, a pumped dewatering system is expected for pre-drainage of the soils prior to excavation to final grade and for maintenance of the lowered groundwater level until construction has been completed to such an extent that the foundation, structure, pipe, conduit, or fill will not be floated or otherwise damaged. Type of dewatering system, spacing of dewatering units and other details of the work are expected to vary with soil/water conditions at a particular location.

### 3.02 SURFACE WATER CONTROL

- A. Control surface water runoff to prevent flow into excavations. Provide temporary measures such as dikes, ditches and sumps.

### 3.03 EXCAVATION DEWATERING

- A. Provide and maintain adequate equipment and facilities to remove promptly and dispose of properly all water entering excavations. Excavations shall be kept in-the-dry, so as to maintain an undisturbed subgrade condition throughout construction below grade, including backfill and fill placement.
- B. Collect precipitation or surface runoff in shallow ditches around the perimeter of the excavation, drain to sump and pump from the excavation to maintain in-the-dry conditions.
- C. Pipe and conduit shall not be installed in water or allowed to be submerged prior to backfilling. Pipe and conduit which becomes submerged shall be removed and the excavation dewatered and restored to proper conditions prior to reinstalling the pipe and conduit.
- D. Excavations for foundations and structures shall be maintained in-the-dry for a minimum of 4 days after concrete placement. In no event shall water be allowed to enter an excavation and rise to cause unbalanced pressure on foundations and structures until the concrete or mortar has set at least 24 hours.
- E. Dewatering and drainage operations shall at all times be conducted in such a manner as to preserve the natural undisturbed bearing capacity of the subgrade at the bottom of the excavation. If the subgrade becomes disturbed for any reason, the unsuitable subgrade material shall be removed and replaced with concrete, compacted granular fill, or other approved material to restore the bearing capacity of the subgrade to its original undisturbed condition.

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- F. Dewatering and drainage operations shall be conducted in a manner which does not cause loss of ground or disturbance to the pipe bedding or soil which supports overlying or adjacent structures.

#### 3.04 DISPOSAL OF DRAINAGE

- A. All water discharged from temporary dewatering and drainage systems shall be disposed of in accordance with the sedimentation and erosion control plans as specified in Section 31 25 00. Existing or new sanitary sewer systems shall not be used to dispose of drainage unless the written permission of the utility or OWNER is obtained.

END OF SECTION

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SECTION 31 23 23.33

CONTROLLED DENSITY FILL

PART 1 GENERAL

1.01 DESCRIPTION

A. Scope:

1. CONTRACTOR shall provide all labor, materials, equipment and incidentals as shown, specified and required to furnish and install controlled density fill where shown on the drawings. Controlled Density Fill shall conform to ODOT Item 613 Low Strength Mortar Backfill.

B. Related Work Specified Elsewhere:

1. Section 33 11 13, Public Water Utility Distribution Piping

1.02 QUALITY ASSURANCE

A. Source Quality Control:

1. Concrete Testing Service:

- a. CONTRACTOR shall employ acceptable testing laboratory to perform materials evaluation, testing and design of low strength mortar backfill mixes.
  - b. OWNER will employ a separate testing laboratory to evaluate low strength mortar backfill delivered to and placed on site.
2. Certificates, signed by low strength mortar backfill producer and CONTRACTOR, may be submitted in lieu of material testing when acceptable to ENGINEER.
  3. Quality Control: Perform sampling and testing during low strength mortar backfill placement, as follows:
    - a. Sampling: ASTM C 172
    - b. Compressive Strength: ASTM C 39, one set for each 100 cubic yards or fraction thereof of low strength mortar backfill; 1 specimen tested at 7 days, 2 specimens tested at 28 days.
      - 1) When the total quantity of low strength mortar backfill is less than 100 cubic yards, the strength tests may be waived by ENGINEER if field experience indicates evidence of satisfactory strength.
  4. Report test results in writing to ENGINEER on same day tests are made.

B. Reference Standards: Comply with the applicable provisions and recommendations of the following, except as otherwise shown or specified.

1. ASTM C33, Standard Specifications for Concrete Aggregates.
2. ASTM C150, Standard Specification for Portland Cement.
3. ASTM C618, Standard Specification for Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete.

1.03 SUBMITTALS

- A. Samples: Submit samples of materials as specified and as may be requested by ENGINEER, including names, sources and descriptions.



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- B. List of materials and low strength mortar backfill mix designs proposed for use as may be requested by ENGINEER. Include the results of all tests performed to qualify the materials and to establish the mix designs.

#### 1.04 PRODUCT DELIVERY, STORAGE, AND HANDLING

All materials used for low strength mortar backfill mix must be kept clean and free from all foreign matter during transportation and handling and kept separate until measured and placed in the mixer. Bins or platforms having hard clean surfaces shall be provided for storage. Suitable means shall be taken during hauling, piling and handling to ensure that segregation of the coarse and fine aggregates particles does not occur and the grading is not affected.

### PART 2 PRODUCTS

#### 2.01 LOW STRENGTH MORTAR BACKFILL MATERIALS

- A. Portland Cement: ASTM C 150, Type I.
- B. Aggregates: ASTM C 33.
  - 1. Fine Aggregate: Clean, sharp, natural sand free from loam, clay, lumps, or other deleterious substances. Dune sand, bank run and manufactures sand are not acceptable.
- C. Fly Ash: ASTM C618
- D. Water: Clean, drinkable.

### PART 3 EXECUTION

#### 3.01 INSPECTION

- A. CONTRACTOR and his installer shall examine the substrate and the conditions under which Work is to be performed and notify the ENGINEER of unsatisfactory conditions. Do not proceed with the Work until unsatisfactory conditions have been corrected in a manner acceptable to the ENGINEER.

#### 3.02 LOW STRENGTH MORTAR BACKFILL AND PLACEMENT

- A. Proportioning and Design of Mix for Low Strength Mortar Backfill (lbs/cy):
  - 1. Compressive Strength at 28 days: 50 psi
  - 2. Maximum Amount of Water: 500 pounds.
  - 3. Fly Ash Content: 250 pounds.
  - 4. Cement Content: 50 pounds.
  - 5. Fine Aggregate Content: 2910 pounds.
  - 6. Calcium Chloride: Do not use calcium chloride in low strength mortar backfill, unless otherwise authorized in writing by ENGINEER. Do not use admixtures containing calcium chloride.
- B. Job-Site Mixing: Use drum type batch machine mixer, mixing not less than 1-1/2 minutes for one cubic yard or smaller capacity. Increase mixing time at least 15 seconds for each additional cubic yard or fraction thereof.

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- C. Ready Mixed: ASTM C 94.
- D. Placement: Comply with ACI 304, placing low strength mortar backfill in a continuous operation within planned joints or sections. Do not begin placement until work of other trades affecting low strength mortar backfill is completed.

END OF SECTION

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## SECTION 31 25 00

### EROSION AND SEDIMENTATION CONTROLS

#### PART 1 GENERAL

##### 1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and perform all installation, maintenance, removal and area cleanup related to erosion and sedimentation control work as shown on the Drawings and as specified herein. The work shall include, but not necessarily be limited to; installation of temporary access ways and staging areas, silt fences, stone filter boxes, stone filter berms, sediment removal and disposal, device maintenance, removal of temporary devices, temporary mulching, excelsior matting installation and final cleanup.
- B. Furnish sedimentation and erosion control plan to the Ohio Environmental Protection Agency (OEPA) based upon actual construction and staging areas utilized for the work.

##### 1.02 RELATED WORK

- A. Section 31 00 00 Earthwork.

##### 1.03 SUBMITTALS

- A. Submit to the ENGINEER, in accordance with Section 01300, within 10 days after award of Contract, technical product literature for all commercial products to be used for sedimentation and erosion control.

##### 1.04 QUALITY ASSURANCE

- A. Be responsible for the timely installation and maintenance of all sedimentation control devices necessary to prevent the movement of sediment from the construction site to off site areas or into the stream system via surface runoff or underground drainage systems. Measures in addition to those shown on the Drawings necessary to prevent the movement of sediment off site shall be installed, maintained, removed, and cleaned up at the expense of the CONTRACTOR. No additional charges to the OWNER will be considered.

#### PART 2 PRODUCTS

##### 2.01 MATERIALS

- A. Crushed stone for sediment filtration devices, access ways and staging areas shall conform to Item 207 of the State of Ohio Department of Transportation Construction and Material Specifications.
- B. Berm structural stone shall be rip-rap as follows:
  - 1. Rip-rap shall be sound, durable rock which conforms to ODOT C&MS 601.04.
- C. Silt Fence

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1. Steel posts shall be a minimum of 5-ft in length, 2 inch by 2 inch by 1/4-inch angle post with self-fastening tabs and a 5-inch by 4-inch (nominal) steel anchor plate at bottom.
  2. Welded wire fabric shall be 4-inch by 4-inch mesh of 12 gauge by 12 gauge steel wire.
  3. Silt fence fabric shall be a woven, polypropylene, ultraviolet resistant material such as Mirafi 100X by Mirafi Inc., Charlotte, NC or equal.
  4. Tie wires for securing silt fence fabric to wire mesh shall be light gauge metal clips (hog rings), or 1/32-inch diameter soft aluminum wire.
  5. Prefabricated commercial silt fence may be substituted for built-in-field fence. Pre-fabricated silt fence shall be "Envirofence" by Mirafi Inc., Charlotte, NC or equal.
- D. One fourth inch woven wire mesh shall be galvanized steel or hardware cloth.
- E. Straw mulch shall be utilized on all newly graded areas to protect areas against washouts and erosion. Straw mulch shall be comprised of threshed straw of oats, wheat, barley, or rye that is free from noxious weeds, mold or other objectionable material. The straw mulch shall contain at least 50 percent by weight of material to be 10-inch or longer. Straw shall be in an air-dry condition and suitable for placement with blower equipment.
- F. Latex acrylic copolymer, such as Soil Sealant with coalescing agent by Soil Stabilization Co., Merced, CA or equivalent shall be used as straw mulch tackifier.
- G. An asphalt tackifier shall only be used when temperatures are too low to allow the use of a latex acrylic copolymer and only with prior written approval from the OWNER and ENGINEER.
- H. Excelsior matting blanket shall be installed in all seeded drainage swales and ditches as shown on the Drawings or as directed by the ENGINEER. Excelsior matting shall be AMXCO Curlex Blanket by American Excelsior Company, Arlington, TX or equal.

### PART 3 EXECUTION

#### 3.01 INSTALLATION

- A. Silt Fence Installation
1. Silt fences shall be positioned as indicated on the Drawings and as necessary to prevent off site movement of sediment produced by construction activities as directed by the ENGINEER.
  2. Dig trench approximately 6-inch wide and 6-inch deep along proposed fence lines.
  3. Drive metal-stakes, 8-ft on center (maximum) at back edge of trenches. Stakes shall be driven 2-ft (minimum) into ground.
  4. Hang 4 by 4 woven wire mesh on posts, setting bottom of wire in bottom of trench. Secure wire to posts with self-fastening tabs.
  5. Hang filter fabric on wire carrying to bottom of trench with about 4-inch of fabric laid across bottom of trench. Stretch fabric fairly taut along fence length and secure with tie wires 12-inch on center both ways.
  6. Backfill trench with excavated material and tamp.
  7. Install pre-fabricated silt fence according to manufacturer's instructions.
- B. Construct filter boxes as detailed on the Drawings, from 1/4-inch woven wire mesh or hardware cloth and wood. Fill with crushed stone and place over all drop inlets and manholes to storm drain system as each inlet is completed. This should be done prior to setting casting, if there is a

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delay between installation of inlet structures or drain manholes and setting of castings. An alternate method is to ring each inlet with a silt fence.

C. Stone Filter Berm Installation

1. Place berm structural stone across channel just below lower sandbag wall at work area. Face upstream side of structural berm with crushed stone.

D. Staging areas and access ways shall be surfaced with a minimum depth of 4-inch of crushed stone.

3.02 MAINTENANCE AND INSPECTIONS

A. Inspections

1. CONTRACTOR shall make a visual inspection of all sedimentation control devices once per week and promptly after every rainstorm. If such inspection reveals that additional measures are needed to prevent movement of sediment to offsite areas or into the vent trench, promptly install additional devices as needed. Sediment controls in need of maintenance shall be repaired promptly.

B. Device Maintenance

1. Silt Fences
  - a. Remove accumulated sediment once it builds up to 1/2 of the height of the fabric.
  - b. Replace damaged fabric, or patch with a 2-ft minimum overlap.
  - c. Make other repairs as necessary to ensure that the fence is filtering all runoff directed to the fence.
2. Filter Boxes
  - a. Replace crushed stone when it becomes saturated with silt.
3. Stone Filter Berm
  - a. Muck out trapped silt from dewatering operations when it has built up to within 6-inches of the top of the berm.
  - b. Replace crushed stone filter when saturated with silt.
4. Add crushed stone to access ways and staging area as necessary to maintain a firm surface free of ruts and mudholes.

3.03 TEMPORARY MULCHING

- A. Apply temporary mulch to areas where rough grading has been completed but final grading is not anticipated to begin within 30 days of the completion of rough grading.
- B. Straw mulch shall be applied at rate of 100 lbs/1000 sq ft and tackified with latex acrylic copolymer diluted per manufacturer's instructions.

3.04 EXCELSIOR MATTING

- A. Excelsior matting blankets shall be installed in all seeded drainage swales and ditches as shown on the Drawings and as directed by the ENGINEER in accordance with manufacturer's instructions. The area to be covered shall be properly prepared, fertilized and seeded with permanent vegetation before the blanket is applied. When the blanket is unrolled, the netting shall be on top and the fibers in contact with the soil over the entire area. The blankets shall be applied in the direction of water flow and stapled. Blankets shall be placed a minimum of three

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rows (of 4-ft) wide (total approx. 12-ft width) within the drainage swale/ditch and stapled together in accordance with manufacturer's instructions. Side overlaps shall be 4-inch minimum. The staples shall be made of wire, .091-inch diameter or greater, "U" shaped with legs 10-inch length and a 1-1/2-inch crown. The staples shall be driven vertically into the ground, spaced approximately two linear feet apart, on each side, and one row in the center alternately spaced between each size. Upper and lower ends of the matting shall be buried to a depth of 4-inch in a trench. Erosion stops shall be created every 25-ft by making a fold in the fabric and carrying the fold into a silt trench across the full width of the blanket. The bottom of the fold shall be 4-inches below the ground surface. Staple on both sides of fold. Where the matting must be cut or more than one roll length is required in the swale, turn down upper end of downstream roll into a slit trench to a depth of 4-inches. Overlap lower end of upstream roll 4-inch past edge of downstream roll and staple.

- B. To ensure full contact with soil surface, roll matting with a roller weighing 100 lbs/ft of width perpendicular to flow direction after seeding, placing matting and stapling. Thoroughly inspect channel after completion. Correct any areas where matting does not present a smooth surface in full contact with the soil below.

### 3.05 REMOVAL AND FINAL CLEANUP

- A. Once the site has been fully stabilized against erosion, remove sediment control devices and all accumulated silt. Dispose of silt and waste materials in proper manner. Regrade all areas disturbed during this process and stabilize against erosion with surfacing materials as indicated on the Drawings.

END OF SECTION

SECTION 32 01 30

SITE RESTORATION AND REHABILITATION

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The work in this Section shall include the demolition and restoration of pavement, curbs, walks, vegetation, and turf where such items are to be or have been removed for any reason in the course of the work.
- B. CONTRACTOR shall include the furnishing of all labor, materials, and equipment required to restore the pavement, curbs, walks, vegetation, and turf as provided in these specifications.
- C. Demolition and removal of any pavement, curbs, walks, vegetation and turf is strictly limited to the areas delineated on the drawings, directed by the ENGINEER and otherwise specified. CONTRACTOR's attentions is directed to trees, vegetation, structures, utilities and other facilities that are shown on the drawings or otherwise specified to be protected and not shown to be specifically demolished or removed.
- D. The CONTRACTOR shall provide for protection of existing streets and structures; the maintenance of streets, driveways, sidewalks, curbs, gutters, reseeding and resodding; protection of trees; restoration of agricultural land; the maintenance of the construction area during progress of the Work. Unless otherwise shown on the drawings, specified elsewhere, or allowed by the ENGINEER, the CONTRACTOR shall maintain streets and driveways open and passable at all times.
- E. The standards for restoration work included in this Section are the minimum acceptable standards of the Warren County Water and Sewer Department. However the CONTRACTOR shall also provide all work in conformance with the standards required by the local governing authority, whichever is more stringent, at no additional compensation.
- F. Standard Pavement Restoration:
  - 1. It is the intent of these specifications that the existing depth of pavement be replaced to its full depth (including all intermediate layers, base courses, finish courses, etc.) to the minimum standards of the Warren County Water and Sewer Department, but in no case shall the Work be less than the minimum standards of the local authority having jurisdiction. The cost of complying with all such standards shall be paid for by the CONTRACTOR.
  - 2. The drawings show pavement restoration details for the project. The ENGINEER shall provide the necessary interpretation of any conflicts or discrepancies between this Section and the drawings.
  - 3. Unless otherwise shown on the drawings, specified elsewhere or directed by the ENGINEER, driveways shall be restored with the type of pavement that was removed.
- G. Schedule and Restoration Work:
  - 1. Restoration of all surfaces disturbed by CONTRACTOR's operations shall be restored to the standards contained in these specifications and to those of the local authority having jurisdiction within sixty (60) days of the date the surface was initially disturbed.



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- a. ENGINEER shall allow for reasonable extension of the sixty days time frame due to weather-related concerns. However restoration work shall restart as soon as weather permits.
2. For restoration work over pipe trenches, coordinate pavement, sod, seed and all restoration work with the scheduling of trench restoration work stated in Section 31 23 00.

H. Related Work Specified Elsewhere:

1. Section 31 23 00, Excavation and Fill.

1.02 QUALITY ASSURANCE

A. Reference Standards: Comply with applicable provisions and recommendations of the latest editions of the following, except where otherwise shown or specified:

1. Ohio Department of Transportation (ODOT) "Construction and Material Specifications".
2. ASTM D 698, Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5-lb (2.49 kg) Hammer and 12-in. (304.8-mm) Drop.

B. The CONTRACTOR shall provide the services of a professional landscaper to restore specific areas designated or specified as gardens or landscaping to be restored. The landscaper selected shall have a minimum of 5 years of verifiable local experience and show evidence of at least five satisfactory installations.

1.03 SUBMITTALS

- A. Evidence satisfactory to ENGINEER of compliance with paragraph 1.02 B. regarding professional landscaper qualifications.
- B. For material(s) provided in accordance with other Section(s), submit all applicable information required by other Section(s).
- C. For material(s) required by this Section to meet requirements of ODOT, submit source or supplier identification and sufficient information and certification by source or supplier to establish compliance with the applicable ODOT standard(s).

PART 2 PRODUCTS

2.01 GENERAL

- A. See paragraph 1.01 for a definition of the Scope of work of this Section.

2.02 EARTHWORK

A. Fill and Backfill Materials:

1. Material: Provide material meeting the requirements of Section 31 23 00. Provide Gravel Backfill where required by these specifications, the drawings and where directed by the ENGINEER.
2. Install as stated in Part 3 of this Section.

B. Unsuitable Soil:

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1. Material: Provide material meeting the requirements of Gravel Backfill material in Section 31 23 00.
2. Install as stated in Part 3 of this Section.

## 2.03 REPLACEMENT PAVEMENT, CURBS, AND WALKS

### A. Asphalt Concrete Pavement:

1. Material: Provide material conforming to ODOT Item 448.
2. Thickness: Install asphalt concrete pavement in 1-1/2 inch or 2 inch thick courses to the total depth required as shown on the details on the drawings and as required by the local authority having jurisdiction.
3. Tack Coat: ODOT Item 407
4. Prime Coat: ODOT Item 408
5. Pavement Joints: ODOT Item 705.04
6. Subbase: ODOT Item 304 Aggregate base
  - a. Provide thickness of base course as shown on the details on the drawings and as required by the local authority having jurisdiction.
7. Base Course: ODOT Item 301 bituminous aggregate base course.
  - a. Provide thickness of base course as shown on the details on the drawings and as required by the local authority having jurisdiction.
8. Install as stated in Part 3 of this section and as shown on the drawings.

### B. Concrete Pavement:

1. The concrete pavement shall consist of a single course of plain concrete pavement complying with the standards of ODOT Item 452.
2. Thickness: Provide depth of pavement to the depth required to match existing pavement and the details on the drawings but not less than the minimum required by the local authority having jurisdiction.
3. Material: Comply with the requirements of ODOT Item 499 Class C.
4. Strength: Minimum twenty-eight (28) day compressive strength of 4000 psi.
5. Base Course: Where shown on the drawing, provide ODOT Item 304 aggregate base course.
  - a. Provide thickness of base course as shown on the drawings and as required by the local authority having jurisdiction.
6. Where shown on the drawings or otherwise required, provide a finish course of ODOT Item 448 of the required thickness.
7. Install as stated in Part 3 of this Section and as shown on the details on the drawings.

### C. Gravel Pavement:

1. Material: ODOT Item 411
2. Gravel paved areas shall be restored to a minimum thickness of 12-inches.
3. Install as stated in Part 3 of this Section.

### D. Temporary Pavement:

1. Provide temporary pavement using 2" of ODOT Item 448.
2. Use a minimum of 12 inch thickness ODOT Item 304 temporary pavement in cold weather if no supplies of ODOT Item 448 are available.
3. Install as stated in Part 3 of this Section.

### E. Concrete Curbs:

1. Material: Comply with the requirements of ODOT Item 499 Class C.

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2. Curb cross section shall match that of existing curb.
3. Joint Filler: Provide one-half inch of ODOT 705.03 preformed joint filler at the following locations:
  - a. Every 40 linear feet, or less if required by local authority having jurisdiction.
  - b. All curb returns.
  - c. All sides of inlets and catch basins.
  - d. Where shown on the drawings.
  - e. Where directed by the ENGINEER.

D. Concrete Walks:

1. Material: Comply with the requirements of ODOT Item 499 Class C.
2. Joint filler: Provide one-half inch ODOT 705.03 preformed joint filler at the following locations:
  - a. Every 40 linear feet of walk or as required by local authority having jurisdiction.
3. Finish: Match existing using steel trowels for final finish.
4. Concrete walks shall be replaced to the original lines and grade to the limits of excavation. Saw cut unless otherwise shown on the drawings or directed by the ENGINEER.

2.04 TREE/SHRUB PROTECTION

- A. Tree and shrub protection and trimming shall be provided in accordance with Section 31 13 16.

PART 3 EXECUTION

3.01 EARTHWORK

A. Fill and Backfill:

1. Install to lines and grades required to accommodate the specified restoration work.

B. Subgrade:

1. Subgrade shall be brought up to final elevations using approved excavated material.
2. Subgrade preparation shall be limited by prevailing weather and field conditions.

C. Compaction of subgrades and finished grades:

1. Compact all fill and backfill to a firm foundation with compactor. Minimum density shall be 95% of the maximum density as determined in accordance with ASTM-D 698.
2. Compaction shall be done in lifts. A lift shall not be placed until the lower lift has achieved required density.
  - a. Maximum lift thickness: 12 inches.
  - b. For trench backfill installation see Section 31 23 00.

D. Unsuitable Soil:

1. Replace all soil material unsuitable for its intended purpose as determined by ENGINEER with Gravel backfill as specified in Section 31 23 00.
2. Replace soft spots that develop during compaction and are otherwise detected. The unsuitable materials shall be removed as directed by the ENGINEER and replaced with Gravel Backfill as specified in Section 31 23 00.

- E. Preparation of subgrade and subbase over pipe trenches shall be as specified in Section 31 23 00.

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### 3.02 RESTORATION OF EXISTING PAVEMENT, CURBS, AND WALKS

- A. CONTRACTOR shall place permanent pavement at finished grades immediately after backfilling trenches in paved roadways, driveways, sidewalks, or other existing paved facility.
  - 1. Comply with the schedule in 31 23 00 for pavement to be restored over pipe trenches.
  - 2. If permanent pavement cannot be installed, CONTRACTOR shall place temporary pavement as specified in this Section.
- B. Compaction:
  - 1. Vibratory compactors shall not weigh less than ten (10) tons.
  - 2. Density: Pavement densities shall be as required by the appropriate ODOT specification.
  - 3. Compaction of pavement base course shall include berms to a minimum width of two (2) feet on each side of the paved area.
- C. Restoration of Pavement Over Trenches: Comply with the schedule in Section 31 23 00 regarding restoration over trenches.
  - 1. Contractor shall maintain in good and safe condition during progress of the entire Work the surface of the paved area over the trench, and shall promptly fill all depressions over and adjacent to the trench caused by settlement of backfilling.
- D. Asphalt Concrete Pavement:
  - 1. Comply with details on the drawings.
  - 2. Provide an application of 0.5 gallons/square yard prime coat between the base course and asphalt concrete course.
  - 3. Precede each asphalt concrete layer with an application of 0.15 gallons/square yard tack coat.
  - 4. Variation in the surface tolerances shall be corrected in a manner satisfactory to the ENGINEER.
  - 5. Pavement Joints: Hot seal and sand all pavement joints in accordance with ODOT Item 705.04.
- E. Concrete Pavement:
  - 1. Comply with details on the drawings.
  - 2. Forms shall be used on open sides so that the completed pavement has its original shape.
  - 3. Provide anchor bolts to tie the existing pavement to the new pavement.
- F. Gravel Pavement:
  - 1. Compact gravel pavement in 6 inch lifts to match existing grade.
  - 2. CONTRACTOR shall provide at no additional cost to the OWNER gravel to refill gravel paved areas if settlement has taken place prior to final acceptance by the OWNER.

### 3.03 TEMPORARY PAVEMENT AND RESTORATION OF CROSSINGS OF PAVEMENT, CURBS AND WALKS

- A. CONTRACTOR shall place temporary pavement at finished grades immediately after backfilling trenches in paved roadways, driveways, sidewalks, or other existing paved facilities.
  - 1. Comply with the schedule in Section 31 23 00 for temporary pavement to be placed over pipe trenches.

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2. Temporary Pavement: Temporary means shall consist of temporary pavement as specified in Part 2 of this Section. Steel plates, gravel, and similar means may be used if allowed by the ENGINEER and the authority having jurisdiction over the pavement.
- B. Perpendicular Crossings: Perpendicular crossings of all pavements due to trenching or other operations shall be restored the same day the cut is made using temporary or permanent means as stated in Section 31 23 00.
    1. Perpendicular is defined as a trench cut that makes an angle between 41 to 90 degrees with the pavement centerline.
    2. For concrete pavement that is to receive a surface course of ODOT Item 448, the surface course shall be placed the same day the concrete is poured. If this is not possible, CONTRACTOR shall provide temporary pavement as described in this Section.
  - C. CONTRACTOR shall maintain temporary pavement until the final pavement is installed.
  - D. Immediately prior to construction of permanent pavement and base, CONTRACTOR shall remove and dispose of temporary pavement. Provide permanent pavement in accordance with the requirements of this Section.

#### 3.04 DEMOLITION AND REMOVAL

- A. Saw cut all pavement and curbs to full depth of material prior to removal. Limits of sawing for removal shall be a minimum of 24-inches beyond the maximum trench width.
- B. Where pavement cuts are parallel to roadway centerline, remove the pavement remaining outside the pavement cut limits if the remaining existing pavement measures less than 3 feet in width. No additional payment will be made for this pavement removal or restoration.
- C. Remove demolished material and dispose of off site unless otherwise directed by the ENGINEER.
- D. Pavements, trees, shrubbery, fences, poles, or other property and surface structures which have been damaged, removed or disturbed by the CONTRACTOR, whether deliberately or through failure to carry out the requirements of the contract documents, state laws, municipal ordinances, or the specific direction of the ENGINEER, or through failure to employ usual and reasonable safeguards shall be replaced at the expense of the CONTRACTOR.

END OF SECTION

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SECTION 32 92 00

TURF AND GRASSES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and provide erosion control and place topsoil, finish grade, apply lime and fertilizer, hydraulically apply seed and mulch and maintain all seeded areas as shown on the Drawings and as specified herein, including all areas disturbed.
- B. All work shall be in accordance with Ohio Environmental Protection Agency (OEPA) requirements.

1.02 RELATED WORK

- A. Site preparation including clearing, grubbing and stripping is included in Section 31 10 00.
- B. Earthwork including excavation, backfill, fill materials and grading including the stockpiling of topsoil is included in Section 31 00 00.
- C. Sedimentation and erosion control is included in Section 31 25 00.

1.03 SUBMITTALS

- A. Samples of all materials shall be submitted for inspection and acceptance upon ENGINEER's request.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Topsoil shall be fertile, friable, natural topsoil typical of topsoil of the locality and shall be obtained from a well drained site that is free of flooding. It shall be without admixture of subsoil or slag and free of stones, lumps, plants or their roots, sticks, clay, peat and other extraneous matter and shall not be delivered to the site or used while in a frozen or muddy condition. Topsoil as delivered to the site or stockpiled shall have pH between 6.0 and 7.0 and shall contain not less than 5 percent nor more than 8 percent organic matter as determined by loss of ignition of moisture-free samples dried at 100 degrees Celsius. The topsoil shall meet the following mechanical analysis:

	<u>Percentage Finer</u>
1-in screen opening	100
No. 10 mesh	95 to 100
No. 270 mesh	35 to 75
0.002 mm*	5 to 25

\*Clay size fraction determined by pipette or hydrometer analysis.

1. At least 30 days prior to anticipated start of topsoiling operations a one pint sample of topsoil material shall be delivered to the ENGINEER for testing and approval. Based on tests performed by the ENGINEER, the topsoil shall be identified as acceptable, acceptable with certain fertilizer and limestone applications or unacceptable. If the topsoil is found acceptable the fertilizer and lime requirements will be as specified or as recommended by the ENGINEER. If the topsoil is found unacceptable, identify another source of topsoil and incur all expenses associated with testing additional samples. All topsoil incorporated into the site work shall match the sample provided to the ENGINEER for testing. Topsoil stockpiled under other Sections of this Division may be used subject to the testing and approval outlined above. Be responsible for screening stockpiled topsoil and providing additional topsoil as required at CONTRACTOR's expense.
  
- B. Fertilizer shall be commercial mixed free flowing granules or pelleted fertilizer, 10-20-10 (N-P2O5-K2O) grade for lawn and naturalized areas. Fertilizer shall be delivered to the site in original unopened containers each showing the manufacturer's guaranteed analysis conforming to applicable state fertilizer laws. At least 40 percent of the nitrogen in the fertilizer used shall be in slowly available (organic) form.
  
- C. Lime shall be ground limestone containing not less than 85 percent calcium and magnesium carbonates and be ground to such fineness that at least 50 percent shall pass a 100-mesh sieve and at least 90 percent shall pass a 20-mesh sieve.
  
- D. Seed shall be labeled in accordance with USDA Rules and Regulations under the Federal Seed Act and applicable State seed laws. Seed shall be furnished in sealed bags or containers bearing the date of the last germination, which date shall be within a period of 6 months prior to commencement of planting operations. Seed shall be from same or previous year's crop; each variety of seed shall have a purity of not less than 85 percent, a percentage of germination not less than 90 percent, shall have a weed content of not more than 1 percent and contain no noxious weeds. The seed mixtures shall consist of seed proportioned by weight as follows:
  1. Lawn Area Seed Mix (For areas as indicated on the Drawings)

"Rebel II" Tall Fescue	70 percent
"Baron" Kentucky Bluegrass	10 percent
"Palmer" Perennial Ryegrass	20 percent
  2. Natural Area Seed Mix (For all slopes and disturbed areas not otherwise indicated)

Kentucky 31 Fescue	40 percent
Palmer Perennial Ryegrass	30 percent
Birds Foot Trefoil (Empire Variety)	15 percent
Red Clover	5 percent
White Clover	5 percent
Redtop (Streaker Variety)	5 percent
  
- E. The seed shall be furnished and delivered premixed in the proportions specified above. A manufacturer's certificate of compliance to the specified mixes shall be submitted by the manufacturers for each seed type. These certificates shall include the guaranteed percentages of purity, weed content and germination of the seed and also the net weight and date of shipment. No seed may be sown until the certificates have been submitted.
  
- F. Seed shall be delivered in sealed containers bearing the dealer's guaranteed analysis.

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- G. Mulch shall be a specially processed 100 percent Virgin wood fiber mulch containing no growth or germination-inhibiting factors. Wood fiber mulch shall be "Second Nature Regenerated wood fiber as by Central Fiber Corporation, Wellsville, KS or equal. It shall be manufactured in such a manner that after addition and agitation in slurry tanks with water, the fibers in the material become uniformly suspended to form a homogeneous slurry. When sprayed on the ground, the material shall allow absorption and percolation of moisture. Each package of the wood fiber shall be marked by the manufacturer to show the air dry weight content and not contain in excess of 10 percent moisture.
- H. Erosion control blanket is specified in Section 31 25 00.
- I. Straw Mulch is specified in Section 31 25 00.
- J. Tackifier is specified in Section 31 25 00.

### PART 3 EXECUTION

#### 3.01 APPLICATION

- A. Unless otherwise shown on the Drawings, topsoil shall be placed to a minimum compacted depth of 6-in on all parts of the site not covered with structures, pavement, or existing woodland.
- B. For all areas to be seeded:
  - 1. Lime shall be applied at the rate of 150 lbs/1,000 sq ft or as determined by the soil test to bring topsoil pH to a range of 6.0 to 7.0.
  - 2. Fertilizer (10-20-10) shall be applied at the rate of 30 lbs/1,000 sq ft or as determined by the soil test.
  - 3. Seed shall be applied at the rate of 5 lbs/1,000 sq ft.
  - 4. Fiber mulch shall be applied at the rate of 45 lbs/1,000 sq ft.
  - 5. Straw mulch shall be applied to all slopes of 3 horizontal to 1 vertical and steeper at a rate of 75 lbs/1000 sq ft.
  - 6. Tackifier shall be installed per manufacturer's instructions and reapplied as necessary to insure the straw mulch is stabilized until reasonable turf growth is established as determined by the ENGINEER with a minimum rate of 1 gal/1000 sq ft per application.
- C. If possible, limestone shall be applied 2 to 3 months before the application of fertilizer. Limestone may not be mixed with fertilizer for application and shall be applied a minimum of 2 weeks prior to fertilizer application.
- D. After the topsoil is placed and before it is raked to true lines and rolled, limestone shall be spread evenly over the loam surface and thoroughly incorporated by heavy raking to at least one half the depth of topsoil.
- E. The application of fertilizer may be performed hydraulically in one operation with hydroseeding and fiber mulching. Clean all structures and paved areas of unwanted deposits of the hydroseeded mixture.
- F. Straw Mulch and Tackifier shall be applied immediately following seeding operations (same day) unless otherwise approved by the ENGINEER.



3.02 INSTALLATION

- A. Previously established grades, as shown on Drawings shall be maintained in a true and even condition.
- B. Subgrade shall be prepared by tilling prior to placement of topsoil to obtain a more satisfactory bond between the two layers. Tillage operations shall be across the slope. Tillage shall not take place on slopes steeper than 2 horizontal to 1 vertical or where tillage equipment cannot be operated. Tillage shall be accomplished by disking or harrowing to a depth of 9-in parallel to contours. Tillage shall not be performed when the subgrade is frozen, excessively wet, extremely dry or in other conditions which would not permit tillage. The subgrade shall be raked and all rubbish, sticks, roots and stones larger than 2-in shall be removed. Subgrade surfaces shall be raked or otherwise loosened immediately prior to being covered with loam.
- C. Topsoil shall be placed over approved areas to a depth sufficiently greater than required so that after natural settlement and light rolling, the complete work will conform to the lines, grades and elevations indicated. No loam shall be spread in water or while frozen or muddy.
- D. After topsoil has been spread, it shall be carefully prepared by scarifying or harrowing and hand raking. All stiff clods, lumps, roots, litter and other foreign material shall be removed from the loamed area and disposed of. The areas shall also be free of smaller stones, in excessive quantities, as determine by the ENGINEER. The whole surface shall then be rolled with a hand roller weighing not more than 100 lbs/ft of width. During the rolling, all depressions caused by settlement of rolling shall be filled with additional loam and the surface shall be regraded and rolled until a smooth and even finished grade is created.
- E. Seeding, mulching and conditioning shall only be performed during those periods within the seasons which are normal for such work as determined by the weather and locally accepted practice, as approved by the ENGINEER. Hydroseed and straw mulch only on a calm day.
- F. Schedules for seeding and fertilizing must be submitted to the ENGINEER for approval prior to the work. Seeding as specified herein shall be accomplished between the period of April 1 to June 1 or August 15 to October 15. Seeding during the period from October 16 to March 31 shall only be undertaken upon approval of the ENGINEER. Seeding during the period from June 1 to August 14 shall only be performed if irrigation is provided.
- G. Seeding shall be done within ten days following soil preparation. Seed shall be applied hydraulically at the rates and percentages indicated. The spraying equipment and mixture shall be so designed that when the mixture is sprayed over an area, the grass seed and mulch shall be equal in quantity to the specified rates. Prior to the start of work, furnish the ENGINEER with a certified statement as to the number of pounds of materials to be used per 100 gallons of water. This statement shall also specify the number of square feet of seeding that can be covered with the quantity of solution in the hydroseeder. Upon completion of seeding operations, furnish the ENGINEER with a certified statement on the actual quantity of solution applied.
- H. In order to prevent unnecessary erosion of newly topsoiled and graded slopes and unnecessary siltation of drainageways, carry out seeding and mulching as soon as he has satisfactorily completed a unit or portion of the project. For the purpose of this project a unit is defined as 10,000 sq ft. When protection of newly loamed and graded areas is necessary at a time which is

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outside of the normal seeding season, protect those areas by what ever means necessary as approved by the ENGINEER and shall be responsible for prevention of siltation in the areas beyond the limit of work.

- I. Erosion control blankets shall be installed in all drainage swales and ditches as shown on the Drawings and as directed by the ENGINEER in accordance manufacturer's instructions. The area to be covered shall be properly prepared, fertilized and seeded before the blanket is applied. When the blanket is unrolled, the netting shall be on top and the fibers in contact with the soil over the entire area. The blankets shall be applied in the direction of water flow, butted snugly at the ends and side and stapled. Blankets shall be placed a minimum of three rows (of 4-ft) wide (total 12-ft width) within the drainage swale/ditch and stapled together in accordance with manufacturer's instructions. The staples shall be made of wire, .091-in in diameter or greater, "U" shaped with legs 6-in in length and a 1-in crown. The staples shall be driven vertically into the ground, spaced approximately two linear yards apart, on each side and one row in the center alternately spaced between each size. Adjoining shall not be overlapped and shall utilize a common row of staples to attach.
- J. When newly graded subgrade areas cannot be topsoiled and seeded because of season or weather conditions and will remain exposed for more than 30 days, protect those areas against erosion and washouts by whatever means necessary such as straw applied with a tar tack, wood chips or by other measures as approved by the ENGINEER. Prior to application of topsoil, any such materials applied for erosion control shall be thoroughly incorporated into the subgrade by discing. Fertilizer shall be applied prior to spreading of topsoil.
- K. On slopes in addition to straw mulch and tackifier, provide against washouts by an approved method. Any washout which occurs shall be regraded and reseeded at the CONTRACTOR's expense until a good turf is established.

### 3.03 MAINTENANCE AND PROVISIONAL ACCEPTANCE

- A. Keep all seeded areas watered and mowed and in good condition, reseeding all seeded areas if and when necessary until a good, healthy, uniform growth is established over the entire area seeded and shall maintain all seeded areas in an approved condition until provisional acceptance.
- B. The ENGINEER will inspect all work for provisional acceptance at the end of the 10 week maintenance period, upon the written request received at least 10 days before the anticipated date of inspection. The maintenance period must occur during the growing season between March 31 and October 1 and shall include a minimum of three mowings.
- C. A satisfactory turf will be defined as:
  - 1. No bare spots larger than 3 sq ft.
  - 2. No more than 10 percent of total area with bare spots larger than 1 sq ft.
  - 3. Not more than 15 percent of total area with bare spots larger than 6-in square.
- D. After the inspection has occurred but prior to provisional acceptance, a soil test shall be performed to determine if additional soil fertilization should occur. If necessary additional fertilizer not to exceed 30 lbs/1000 sq ft of 20-10-10 shall be applied as directed by the ENGINEER.

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- E. Furnish full and complete written instructions for maintenance of the seeded areas to the OWNER at the time of provisional acceptance.
- F. The inspection by the ENGINEER will determine whether maintenance shall continue. Continue maintenance until all areas of the site meet the minimum requirements specified above.
- G. After all necessary corrective work and clean-up has been completed, and maintenance instructions have been received by the OWNER, the ENGINEER will certify in writing the provisional acceptance of the turf areas. Maintenance of all turf areas shall cease on receipt of provisional acceptance.

#### 3.04 GUARANTEE PERIOD AND FINAL ACCEPTANCE

- A. All seeded areas shall be guaranteed for not less than 1 full year from the time of provisional acceptance.
- B. At the end of the guarantee period, inspection will be made by the ENGINEER upon written request submitted at least 10 days before the anticipated date. Seeded areas not demonstrating satisfactory stands as outlined above, as determined by the ENGINEER, shall be renovated, reseeded and maintained meeting all requirements as specified herein.
- C. After all necessary corrective work has been completed, the ENGINEER shall certify in writing the final acceptance of the seeded areas.

END OF SECTION

SECTION 33 11 13

PUBLIC WATER UTILITY DISTRIBUTION PIPING

PART 1 GENERAL

1.01 DESCRIPTION

A. Scope:

1. Contractor shall provide all labor, materials, equipment and incidentals as shown, specified and required to install and test all buried piping, fittings, and specials. The Work includes, but is not limited to, the following:
  - a. All types and sizes of buried piping, except where buried piping installations are specified under other Sections or other Contracts.
  - b. Unless otherwise specifically shown, specified, or included under other Sections, all buried piping Work required, beginning at the outside face of structures or structure foundations, including piping beneath structures, and extending away from structure.
  - c. Work on or affecting existing piping.
  - d. Installation of all jointing and gasket materials, specials, flexible couplings, mechanical couplings, harnessed and flanged adapters, sleeves, tie rods, and all other Work required for a complete, buried piping installation.
  - e. Supports, restraints, and thrust blocks.
  - f. Pipe encasements, with the exception of piping embedded in concrete within a structure or foundation.
  - g. Field Quality Control, including Testing.
  - h. Cleaning and disinfecting.
  - i. Incorporation of valves, meters and special items shown or specified into the piping systems per the Contract Documents and as required.

B. Coordination:

1. Review installation procedures under this and other Sections and coordinate the installation of items that must be installed with, or before the buried piping installation Work.
2. Coordinate with the appropriate piping Sections of Division 33, Utilities.
3. Notify other contractors in advance of the installation of the buried piping installation to provide them with sufficient time for the installation of items included in their contracts that must be installed with, or before, the buried piping installation Work.

- C. No existing structure or concrete shall be shifted, cut, removed, or otherwise altered until authorization is given by the Engineer.

1.02 RELATED WORK

- A. Section 31 23 00, Excavation and Fill.
- B. Division 33, Applicable Sections on Piping, Valves and Appurtenances.

1.03 REFERENCES

- A. Standards referenced in this Section are listed below:
  1. American National Standards Institute, (ANSI):
    - a. ANSI B31.1, Power Piping.

2. American Society for Testing and Materials, (ASTM):
  - a. ASTM B 32, Specification for Solder Metal.
  - b. ASTM C 924, Practice for Testing Concrete Pipe Sewer Lines by Low-Pressure Test Method.
  - c. ASTM D 2321, Practice for Underground Installation of Thermoplastic Pipe for Sewers and other Gravity-Flow Applications.
  - d. ASTM D 2774, Practice for Underground Installation of Thermoplastic Pressure Piping.
  - e. ASTM F 1417, Test Method for Installation Acceptance of Plastic Gravity Sewer Lines using Low-Pressure Air.
3. American Water Works Association, (AWWA):
  - a. AWWA C111, Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
  - b. AWWA C600, Installation of Ductile-Iron Water Mains and Their Appurtenances.
  - c. AWWA C605, Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water.
  - d. AWWA C606, Grooved and Shouldered Joints.
  - e. AWWA C651, Disinfecting Water Mains.
  - f. AWWA M9, Concrete Pressure Pipe.
  - g. AWWA M23, PVC Pipe - Design and Installation
  - h. AWWA M41, Ductile-Iron Pipe and Fittings.
4. American Society of Civil Engineers, (ASCE):
  - a. ASCE 37, Design and Construction of Sanitary and Storm Sewers.
5. Concrete Pipe Handbook, American Concrete Pipe Association.
6. Factory Mutual System, (FM).
7. National Fire Protection Association, (NFPA):
  - a. NFPA 24, Standard for the Installation of Private Fire Service Mains and Their Appurtenances.
8. Underwriters' Laboratories, Inc., (UL).

#### 1.04 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with applicable provisions and recommendations of the following except as otherwise shown or specified.
  1. Comply with requirements of authorities having jurisdiction at the site.
  2. Obtain all necessary permits for Work in roads, rights-of-way, railroads, and other areas of the Project. Also, obtain permits as required by local, state and federal agencies for discharging water from excavations.

#### 1.05 SUBMITTALS

- A. Shop Drawings: Submit the following:
  1. Laying schedules for all concrete pipe and piping with restrained joints.
  2. Full details of piping, specials, joints, harnessing and thrust blocks, and connections to piping, structures, equipment and appurtenances.
- B. Tests: Submit description of proposed testing methods, procedures and apparatus. Prepare and submit report for each test.
- C. Certificates: Submit certificates of compliance with referenced standards.
- D. Record Documents:
  1. Maintain accurate and up-to-date record documents showing field and Shop Drawing modifications. Record documents for buried piping Work shall show actual location of all

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- pipng and appurtenances at same scale as the Contract Drawings.
2. Record documents shall show piping with elevations referenced to the project datum and dimensions to at least three permanent structures, when possible. For straight runs of pipe provide offset dimensions as required to document pipe location.
  3. Include profile drawings with buried piping record documents when the Contract Documents include pipe profile drawings.

#### 1.06 DELIVERY, STORAGE AND HANDLING

- A. Delivery:
  1. Deliver materials to the Site to ensure uninterrupted progress of the Work.
  2. Upon delivery inspect pipe and appurtenances for cracked, gouged, chipped, dented, and other damaged material and immediately remove from Site.
- B. Storage:
  1. Store materials to allow convenient access for inspection and identification. Keep material off the ground using pallets, platforms, or other supports. Protect steel members and packaged materials from corrosion and deterioration.
  2. Pipe and fittings other than PVC and CPVC may be stored outdoors without cover. PVC and CPVC pipe and fittings stored outdoors shall be covered.
- C. Handling:
  1. Handle all pipe, fittings, specials and accessories carefully with approved handling devices. Do not drop or roll material off trucks. Do not otherwise drop, roll or skid piping.
  2. Avoid unnecessary handling of pipe.
  3. Keep pipe interiors free from dirt and foreign matter.
  4. Protect interior linings and exterior coatings of pipe and fittings from damage during handling. Pipe and fittings with damaged lining shall be replaced regardless of cause of damage.

### PART 2 PRODUCTS

#### 2.01 MATERIALS

- A. Piping materials are specified in the Buried Piping Schedule at the end of this Section. Piping materials shall conform to specification for each type of pipe and piping appurtenances in applicable sections of Division 33, Utilities. All material shall be domestic, made in the United States of America.
- B. General:
  1. Marking Piping:
    - a. Factory mark each piece of pipe or fitting with a designation conforming to those shown on the laying schedule.
    - b. Manufacturer shall cast or paint material, type and pressure designation on each piece of pipe or fitting 4-inches in diameter and larger.
    - c. Pipe and fittings smaller than 4-inches in diameter shall be clearly marked by manufacturer as to material, type and rating.

#### 2.02 BURIED PIPING IDENTIFICATION

- A. Detectable Underground Warning Tape for Non-Metallic Pipelines:
  1. Tape shall be of inert, acid and alkali-resistant, polyethylene, 5 mil thick, six inches wide

with aluminum backing, and have 1,500 psi strength and 140 percent elongation capability. Tape shall be suitable for direct burial.

2. Message shall read, "CAUTION [insert name of pipe service, i.e., "WATERLINE", "SANITARY SEWER", "CHLORINE GAS", etc.] PIPE BURIED BELOW" with bold letters approximately two inches high. Messages shall be printed at maximum intervals of two feet. Tape shall be colored the same as the background colors as specified for the associated pipe service.
3. Manufacturer: Provide products of one of the following:
  - a. Brady Corporation
  - b. Seton Identification Products
  - c. Marking Services, Inc.

## PART 3 EXECUTION

### 3.01 INSTALLATION

#### A. General:

1. Install piping as shown, specified and as recommended by the manufacturer.
2. If there is a conflict between manufacturer's recommendations and the Contract Documents, request instructions from Engineer, in writing, before proceeding.
3. Engineer shall inspect all trench excavations and bedding prior to laying pipe. Notify Engineer, in writing, in advance of excavating, bedding pipe laying, and backfill operations.
4. Minimum cover over piping shall be 54 inches, unless otherwise shown or accepted by Engineer.
5. Earthwork required is specified in the applicable Sections of Division 31, Earthwork
6. Excavation in excess of that required or shown and which is not authorized by the Engineer shall be replaced at Contractor's expense with approved granular material, furnished, placed and compacted in accordance with the requirements of the applicable Sections of Division 31, Earthwork.
7. Comply with NFPA 24 for "Outside Protection", where applicable to water pipe systems used for fire protection.

#### B. Manufacturer's Installation Specialist:

1. Provide the services of a competent installation specialist of the pipe manufacturer when pipe laying commences for the following:
  - a. Reinforced concrete pipe.
  - b. Prestressed concrete cylinder pipe.
  - c. FRP and CCFRPM pipe.
  - d. Thermoplastic pipe.
2. Retain installation specialist at the Site for a minimum of two days or until competency of the pipe laying crew has been satisfactorily demonstrated.

#### C. Separation of Sewers and Potable Water Pipe Lines:

1. Horizontal Separation:
  - a. Wherever possible, existing and proposed potable water mains and service lines, and sanitary and storm sewers shall be separated horizontally by a clear distance of not less than ten feet.
  - b. If local conditions preclude a clear horizontal separation of not less ten feet, the installation will be permitted provided the potable water main is in a separate trench or on a undistributed earth shelf located on one side of the sewer and at an elevation so the bottom of the potable water main is at least 24-inches above the top of the sewer.
  - c. Exception: Where it is not possible to provide the minimum horizontal and vertical

separation described above, both the potable water main and sewer must be constructed of cement lined ductile iron piping with restrained push-on joint or restrained mechanical joint pipe complying with public water supply design standards of the agency having jurisdiction. Both pipes shall be pressure tested in accordance with the requirements of the Buried Piping Schedule, but in no case less than 150 psi, to ensure watertightness before backfilling.

2. Vertical Separation:

- a. Provide a minimum vertical distance of 24 inches between the outside of the potable water main and the outside of the sewer when a sewer or drain must cross over a potable water main.
- b. Center a section of potable water main at least 12.5 feet long over the sewer so that the sewer joints will be equidistant from the potable water main joints.
- c. Provide adequate structural support where a potable water main crosses under a sewer to maintain line and grade.
- d. Exceptions:
  - 1) Where it is not possible to provide the minimum horizontal and vertical separation described above, both the potable water main and sewer must be constructed of cement lined ductile iron pipe. Both pipes shall be pressure tested in accordance with the requirements of the Buried Piping Schedule, but in no case less than 150 psi, to ensure watertightness before backfilling.
  - 2) Encase either potable water main or sewer in a watertight carrier pipe which extends ten feet on both sides of the crossing, measured perpendicular to the potable water main.

D. Plugs:

1. Temporarily plug installed pipe at the end of each day's Work or other interruption to the installation of any pipeline. Plugging shall prevent the entry of animals, liquids or persons into the pipe or the entrance or insertion of deleterious materials.
2. Install standard plugs into all bells at dead ends, tees or crosses. Cap all spigot ends.
3. Fully secure and block all plugs and caps installed for pressure testing to withstand the specified test pressure.
4. Where plugging is required for phasing of the Work or for subsequent connection of piping, install watertight, permanent type plugs.

E. Bedding Pipe: Bed pipe as specified below and in accordance with the details shown.

1. Trench excavation and backfill, and bedding materials shall conform to the requirements of Section 31 23 00, Excavation and Fill, as applicable.
2. Where Engineer deems the existing bedding material unsuitable, remove and replace it with approved granular materials. Payment for the additional excavation and crushed stone or gravel refill will be made at the unit prices bid in the Bid Form.
3. Where pipe is installed in rock excavation, provide a minimum of three inches of granular bedding material underneath pipe smaller than 4-inch diameter and a minimum of six inches of granular bedding material underneath pipes 4-inch diameter and larger.
4. Excavate trenches below the pipe bottom by an amount shown and specified. Remove all loose and unsuitable material from the trench bottom.
5. Carefully and thoroughly compact all pipe bedding with handheld pneumatic compactors.
6. Do not lay pipe until the Engineer approves the bedding condition. If a conflict exists obtain direction from Engineer before proceeding.
7. No pipe shall be brought into position until the preceding length has been bedded and secured in its final position.

F. Laying Pipe:



1. Conform to manufacturer's instructions and requirements of standards and manuals listed below, as applicable:
  - a. Ductile Iron Pipe: ANSI/AWWA C600, ANSI/AWWA C105, AWWA M41.
  - b. Concrete Pipe: AWWA M9.
  - c. Steel Pipe: ANSI/AWWA C206, AWWA M11.
  - d. Thermoplastic Pipe: ASTM D2321, ASTM D2774, ANSI/AWWA C605, AWWA M23, AWWA M45, AWWA, M55.
  - e. Vitrified Clay Pipe: ASTM C12.
  - f. Sanitary and Storm Sewers: ASCE 37.
2. Install all pipe accurately to line and grade shown, unless otherwise approved by Engineer. Remove and relay pipes that are not laid correctly.
3. Slope piping uniformly between elevations shown.
4. Ensure that ground water level in trench is at least 6-inches below bottom of pipe before laying piping. Do not lay pipe in water. Maintain dry trench conditions until jointing and backfilling are complete and protect and keep clean water pipe interiors, fittings and valves.
5. Start laying pipe at lowest point and proceed towards the higher elevations, unless otherwise approved by Engineer.
6. Place bell and spigot pipe so that bells face the direction of laying, unless otherwise approved by Engineer.
7. Place concrete pipe containing elliptical reinforcement with minor axis of reinforcement in a vertical position.
8. Excavate around joints in bedding and lay pipe so that the barrel bears uniformly on the trench bottom.
9. Deflections at joints shall not exceed 75 percent of the amount allowed by the pipe manufacturer.
10. For PVC and CPVC piping with solvent welded joints, two and one-half inches in diameter and smaller and copper tubing and thermoplastic piping, snake piping in trench to compensate for thermal expansion.
11. Carefully examine all pipe, fittings and specials for cracks, damage or other defects while suspended above the trench before installation. Immediately remove defective materials from the Site.
12. Inspect interior of all pipe and fittings and completely clean all dirt, gravel, sand, debris or other foreign material from pipe interior and joint recesses before it is moved into the trench. Bell and spigot mating surfaces shall be thoroughly wire brushed, and wiped clean and dry immediately before the pipe is laid.
13. Field cut pipe, where required, with a machine specially designed for cutting piping. Make cuts carefully, without damage to pipe or lining, and with a smooth end at right angles to the axis of pipe. Cut ends on all types of push-on joints shall be tapered and sharp edges filed off smooth. Flame cutting will not be allowed.
14. Blocking under piping will not be permitted, unless specifically approved by Engineer for special conditions. If permitted, conform to requirements of AWWA C600.
15. Touch up protective coatings in a satisfactory manner prior to backfilling.
16. Contractor shall notify Engineer in advance of backfilling operations. All piping shall be inspected by the Engineer prior to any backfilling.
17. On steep slopes, take measures acceptable to Engineer to prevent movement of the pipe during installation.
18. Thrust Restraint: During the installation of the pipe, thrust blocks, tied joints, or proprietary restrained joint systems shall be provided wherever required for thrust restraint. Thrust restraint shall conform to the applicable requirements of Paragraph 3.3.
19. Exercise care to avoid flotation when installing pipe in cast-in-place concrete.

G. Jointing Pipe:

1. Ductile Iron Mechanical Joint Pipe:
  - a. Wipe clean the socket, plain end and adjacent areas immediately before making joint. Make certain that cut ends are tapered and sharp edges are filed off smooth.
  - b. Lubricate the plain ends and gasket with soapy water or the manufacturer’s recommended pipe lubricant, in accordance with AWWA C111, just prior to slipping the gasket onto the plain end of the joint assembly.
  - c. Place the gland on the plain end with the lip extension toward the plain end, followed by the gasket with the narrow edge of the gasket toward the plain end.
  - d. Insert the pipe into the socket and press the gasket firmly and evenly into the gasket recess. Keep the joint straight during assembly.
  - e. Push gland toward socket and center it around pipe with the gland lip against the gasket.
  - f. Insert bolts and hand tighten nuts.
  - g. Make deflection after joint assembly, if required, but prior to tightening bolts. Alternately tighten bolts 180 degrees apart to seat the gasket evenly. The bolt torque shall be as follows:

<u>Pipe Size (Inches)</u>	<u>Bolt Size (Inches)</u>	<u>Range of Torque (Ft-lbs)</u>
3	5/8	45 to 60
4 to 24	3/4	75 to 90
30 to 36	1	100 to 120
42 to 48	1-1/4	120 to 150

- h. All bolts and nuts shall be coated with two 8 mil dry film thickness per coat, coats of coal-tar epoxy coating as manufactured by Tnemec, or equal.
  - i. Restrained mechanical joints shall be in accordance with Section 33 11 13.13, Ductile Iron Public Water Utility Distribution Piping.
2. Ductile Iron Push-On Joint Pipe:
  - a. Prior to assembling the joints, the last 8-inches of the exterior surface of the spigot and the interior surface of the bell shall be thoroughly cleaned with a wire brush, except where joints are lined or coated with a special protective lining or coating.
  - b. Rubber gaskets shall be wiped clean and flexed until resilient. Refer to manufacturer's instructions for procedures to ensure gasket resiliency when assembling joints in cold weather.
  - c. Insert gasket into joint recess and smooth out the entire circumference of the gasket to remove bulges and to prevent interference with the proper entry of the spigot of the entering pipe.
  - d. Immediately prior to joint assembly, apply a thin film of pipe manufacturer’s recommended lubricant to the surface of the gasket that will come in contact with the entering spigot end of pipe. Contractor may, at their option, apply a thin film of lubricant to the outside of the spigot of the entering pipe.
  - e. For assembly, center spigot in the pipe bell and push pipe forward until it just makes contact with the rubber gasket. After gasket is compressed and before pipe is pushed or pulled all the way home, carefully check the gasket for proper position around the full circumference of the joint. Final assembly shall be made by forcing the spigot end of the entering pipe past the rubber gasket until it makes contact with the base of the bell. When more than a reasonable amount of force is required to assemble the joint, the spigot end of the pipe shall be removed to verify the proper positioning of the rubber gasket. Gaskets which have been scoured or otherwise damaged shall not be used.
  - f. Maintain an adequate supply of gaskets and joint lubricant at the Site at all times when pipe jointing operations are in progress.

3. Proprietary Joints:
  - a. Pipe which utilizes proprietary joints for restraint specified in Section 33 11 13.13, Ductile Iron Public Water Utility Distribution Piping, or other such joints shall be installed in strict accordance with the manufacturer's instructions.
4. Ductile Iron Flanged Joints:
  - a. Assemble flanged joints using ring-type gaskets, thickness as recommended by pipe manufacturer but not less than 1/8-inch thick, for raised face flanges. Use full face gaskets for flat face flanges, unless otherwise approved by ENGINEER or recommended by pipe manufacturer. Gaskets shall be suitable for the service intended in accordance with manufacturer's ratings and instructions. Gaskets shall be properly centered.
  - b. Bolts shall be tightened as recommended by the manufacturer in a sequence that ensures equal distribution of bolt loads.
  - c. Length of bolts shall be uniform. Bolts shall not project beyond the nut more than 1/4-inch when fully tightened. Bolts shall not fall short of the nut when fully taken up. Ends of bolts shall be machine cut and neatly rounded. Do not use washers.
  - d. Prior to assembly, lubricate bolt threads and gasket faces.
  - e. After assembly, coat all bolts and nuts, except those of stainless steel, with two coats, minimum dry film thickness of 8-mils each, of a high-build epoxy or bituminous coating manufactured by Tnemec, or equal.
5. Thermoplastic Pipe Joints:
  - a. Solvent Cement Joints:
    - 1) Bevel pipe ends and remove all burrs before making joints. Clean both pipe and fittings thoroughly. Do not attempt to make solvent cement joints if temperature is below 40 degrees F nor in wet conditions.
    - 2) Use solvent cement supplied or recommended by the pipe manufacturer.
    - 3) Apply joint primer and solvent cement and assemble joints in strict accordance with the recommendations and instructions of the manufacturer of the joint materials and the pipe manufacturer.
    - 4) Observe safety precautions with the use of joint primers and solvent cements. Allow air to circulate freely through pipelines to permit solvent vapors to escape. Slowly admit water when flushing or filling pipelines to prevent compression of gases within pipes.
  - b. Bell and Spigot Joints:
    - 1) Bevel field-cut pipe, remove all burrs, and provide a reference mark at the correct distance from pipe end.
    - 2) Clean spigot end and bell thoroughly before making the joint. Insert O-ring gasket while ensuring that gasket is properly oriented. Lubricate spigot well with manufacturer's recommended lubricant. Do not lubricate bell and O-ring. Insert spigot end of pipe carefully into bell until reference mark on spigot is flush with bell.
6. Copper Tubing Joints:
  - a. Assemble copper tubing with soldered joints. Solder shall be 95-5 tin-antimony solder conforming to ASTM B 32.
  - b. Ream or file pipe to remove burrs.
  - c. Clean and polish contact surfaces of joints.
  - d. Apply flux to both male and female ends.
  - e. Insert end of tube into full depth of fitting socket.
  - f. Heat joint evenly.
  - g. Form continuous solder bead around entire circumference of joint.
  - h. Runs shall contain unions at connection to equipment and at reasonable distances along the lengths of runs to permit convenient disassembly of piping and removal of equipment.
7. Steel Pipe Joints:

- a. Joints in steel pipe shall be butt welded or lap welded joints, except that split flexible couplings, shall be provided at connections to structures and at transitions to different material piping.
  - b. Welding shall conform to the requirements of AWWA C206.
  - c. After welding, the joint and the surrounding damaged or uncoated area shall be coated with the same material and to the same thickness as the shop applied coating.
  - d. Where flanged connections or couplings are provided, the flanges, couplings, bolts and nuts shall be coated with two coats, 8 mil dry film thickness per coat, of high-build epoxy or bituminous coating as manufactured by Tnemec, or equal.
  - e. All welds shall be free from embedded scale or slag and shall have the tensile strength across the weld not less than the thinnest of the connected sections.
  - f. All welds shall be watertight.
8. HDPE Pipe Joints:
- a. Bell and Spigot Joints:
    - 1) Remove all burrs, and provide a reference mark at the correct distance from pipe end. Mark shall be placed such that no more than one half inch of the machined spigot surface will be visible outside of the bell after the pipe has been joined.
    - 2) Clean spigot end and bell thoroughly with soap and water before positioning the gasket.
    - 3) Lubricate spigot groove with manufacturer's recommended lubricant. Thoroughly clean the gasket and place in the spigot groove starting at the bottom, ensuring that the gasket fins face backwards towards the pipe.
    - 4) Thoroughly lubricate the gasket with manufacturer's recommended lubricant and equalize the stretch in the gasket by running a screwdriver under the gasket around its entire circumference three times. Reposition the gasket in the groove after stretching.
    - 5) Thoroughly clean and lubricate the receiving bell. Align the pipe as straight as possible and insert spigot end of pipe carefully into bell until reference mark on spigot is flush with bell.
    - 6) If a mechanical means is used to insert the spigot end, the end of the pipe being pushed shall be protected with wood and to ensure even distribution of pressure.
  - b. Butt Fusion Welded Joints:
    - 1) Joints shall be installed in accordance with the manufacturer's instructions using a hydraulic butt fusion machine, or a manual machine equipped with a torque wrench. All equipment shall be able to achieve and maintain a heating tool temperature range of 400 to 450 degrees F and an interface pressure of 60 to 90 psi.
    - 2) Clean the interior and exterior of the pipe or fitting ends with a clean, dry, lint-free cloth.
    - 3) Align the ends to be joined in the fusion machine, without forcing ends into alignment. Adjust the alignment as necessary and tighten the clamps to prevent slippage.
    - 4) Place the facing tool between the ends to be joined, and face them to provide a clean, smooth, parallel mating surface. If stops are present, face the ends down to the stops. Remove all shavings after facing without touching the ends.
    - 5) Re-check alignment of the ends and check for slippage against the fusion pressure. Check that there are no detectable gaps between the ends and that outside diameters are in alignment.
    - 6) Verify the heating tool is maintaining the recommended temperature range and then place the tool between the ends to be joined. Move the ends against the heating tool to ensure full contact. Hold the ends against the heating tool without force until the proper melt bead size is formed. Approximate melt bead sizes are

as follows:

<b>Pipe Diameter (inches)</b>	<b>Approximate Melt Bead Size (inches)</b>
2 to 4	1/8 to 3/16
4 to 12	3/16 to 1/4
12 to 24	1/4 to 7/16
24 to 54	7/16 to 9/16

- 7) Upon formation of the proper melt bead size, quickly separate the ends and remove the heating tool.
- 8) After removing the heating tool, quickly inspect the melted ends, and then bring the ends together applying the correct joining force, as recommended by the manufacturer, using 60-90 psi interfacial pressure, to form a double bead rolled over the surface of the pipe on both ends.
- 9) Hold the joining force against the ends until the joint is cool to the touch. Cooling period shall last approximately 30-90 seconds per inch of pipe diameter. Heavier wall thicknesses may require longer cooling times as recommended by the manufacturer.
- 10) Upon completion of the joint, joint shall be inspected to ensure a double bead has been formed on both sides, uniformly rounded and consistent in size all around the joint. Any joint found to be faulty shall be cut out of the system and removed.

I. Backfilling:

1. Conform to the applicable requirements of Section 31 23 00, Excavation and Fill.
2. Place backfill as the Work progresses. Backfill by hand and use power tampers until pipe is covered by at least one foot of backfill.

J. Connections to Valves and Hydrants:

1. Install valves and hydrants as shown on Drawings.
2. Provide suitable adapters when valves or hydrants and piping have different joint types.
3. Provide thrust restraint at all hydrants and at valves at pipeline terminations.

K. Transitions from One Type of Pipe to Another

1. Provide all necessary adapters, specials and connection pieces required when connecting different types and sizes of pipe or connecting pipe made by different manufacturers.

L. Closures:

1. Provide all closure pieces shown or required to complete Work.
2. Locate closures in straight runs of pipe.

3.02 TRACER TAPE INSTALLATION

A. Detectable Underground Warning Tape for Non-Metallic Pipelines:

1. Provide polyethylene tracer tape with aluminum backing for buried, nonmetallic piping.
2. Provide magnetic tracer tape 12 to 18 inches below finished grade, above and parallel to buried pipe.
3. For pipelines buried eight feet or greater below finished grade, provide a second line of

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- magnetic tracer tape 2.5 feet above crown of buried pipe, aligned along the pipe centerline.
4. Tape shall be spread flat with message side up before backfilling.

### 3.03 THRUST RESTRAINT

- A. Provide thrust restraint on all pressure piping systems and where otherwise shown and specified.
- B. Thrust restraint may be accomplished by means of restrained pipe joints. Thrust restraints shall be designed for the axial thrust exerted by the test pressure specified in the Buried Piping Schedule located at the end of the Section.
- C. Restrained Pipe Joints:
  1. Pipe joints shall be restrained by means suitable for the type of pipe being installed.
    - a. Restrain ductile iron push-on joints and mechanical joints utilizing a proprietary restrained joint system as specified in Section 33 11 13.13, Ductile Iron Public Water Utility Distribution Piping, lugs and tie rods, or other systems approved by Engineer.
    - b. Where push-on type or other non-restrained joints are utilized for thermoplastic piping, Contractor shall provide tie rods or other suitable joint restraint system, subject to the approval of Engineer.
    - c. Prestressed concrete cylinder pipe shall be restrained utilizing bell-bolt, clamp type, or snap ring-type restrained joints.
    - d. Steel pipe shall have butt-welded or lap welded joints or split flexible coupling connections.
    - e. Harnessed lengths for buried pipe shall be determined by the pipe manufacturer in accordance with the formula for Determination of Buried Pipe Harnessed Lengths located at the end of this Section.

### 3.04 WORK AFFECTING EXISTING PIPING

- A. Location of Existing Piping
  1. Locations of existing piping shown should be considered approximate.
  2. Contractor shall determine the true location of existing piping to which connections are to be made, crossed or could be disturbed and location of other facilities which could be disturbed during earthwork operations, or which may be affected by Contractor's Work in anyway.
  3. Conform to applicable requirements of Division 1, General Requirements, pertaining to cutting and patching, and connections to existing facilities.
- B. Taking Existing Pipelines Out of Service:
  1. Do not take pipelines out of service, unless specifically listed below, or approved by ENGINEER, in writing.
    - a. None.
  2. Notify ENGINEER, in writing, at least 48 hours prior to taking pipeline out of service.
- C. Work on Existing Pipelines:
  1. Cut or tap pipes as shown or required with machines specifically designed for this work.
  2. Install temporary plugs to prevent entry of mud, dirt, water and debris.
  3. Provide all necessary adapters, fittings, pipe and appurtenances required to complete the Work.

### 3.05 TESTING OF PIPING

A. General:

1. Test all piping, except as otherwise authorized by Engineer.
2. Notify Engineer, in writing, and local authorities having jurisdiction at least 48 hours in advance of testing if their presence is required.
3. Conduct all tests in the presence of the Engineer.
4. Remove or protect any pipeline-mounted devices that may be damaged by the test pressure.
5. Provide all apparatus and services required for testing, including but not limited to, the following:
  - a. Test pumps, bypass pumps, hoses, calibrated gages, meters, test containers, valves and fittings.
  - b. Temporary bulkheads, bracing, blocking and thrust restraints.
6. Provide air if an air test is required and power if pumping is required.
7. Unless otherwise noted, pipelines shall hold specified test pressure for two hours.
8. Repair and retest pipelines which fail to hold specified test pressure or which exceed the allowable leakage rate.
9. Unless otherwise specified, test pressures required are at the lowest elevation of the pipeline section being tested.
10. Advise local authorities having jurisdiction if their presence is required during testing.

B. Test Schedule:

1. Test piping at 1.5 times the operating pressure or at 250 psi, whichever is greater.

C. Hydrostatic Testing:

1. Preparation for Testing
  - a. For thermoplastic pipe, including fiberglass pipe, follow procedures described in Section 7 of AWWA Standard C605.
  - a. For all other piping follow procedures described in AWWA Manual M9.
  - b. Ensure that adequate thrust protection is in place and that all joints are properly installed.
2. Test Procedure:
  - a. Fill pipeline slowly to minimize air entrapment and surge pressures. Fill rate should not exceed one foot per second in the pipe being tested.
  - b. Examine exposed joints and valves, and correct visible leakage.
  - c. After the wetting period prescribed above, add fluid to pressurize line to the required test pressure. Maintain test pressure for a stabilization period of ten minutes before beginning test.
  - d. After the stabilization period, maintain test pressure for a two-hour period. Add fluid to restore test pressure if pressure drops five psi below test pressure at any time during the test period.
  - e. Pump from a test container to maintain test pressure. Measure the volume of fluid pumped from the container and record on the test report. Record pressure at the test pump at 15 minute intervals for the duration of the test.
3. Allowable Leakage Rates: Leakage is defined as the quantity of fluid that must be supplied to the pipeline or any section thereof to maintain pressure within five psi of the test pressure during a two-hour period. The two-hour test period shall not begin until after the pipe has been filled, exposed to the required wetting period, air has been expelled and pressure has been stabilized. Allowable leakage rates for all other piping system are listed below:
  - a. No Leakage: Pipe with flanged, welded, fused, screwed or soldered joints.
  - b. Rates based on the formula or table in AWWA Manual M41:
    - 1) Metal and fiberglass pipe joined with rubber gaskets as sealing members. This includes the following joint types:
      - i. Push-on joints

- ii. Mechanical joints.
    - iii. Bolted sleeve type couplings
    - iv. Grooved and shouldered couplings.
  - c. Rates based on the make-up allowance in AWWA Manual M9:
    - 1) Cylinder and non-cylinder concrete pipe joined with O-ring rubber gasket sealing members.
  - d. Rates based on the formula or table in AWWA C605:
    - 1) Plastic pipe joined with O-ring gasket sealing members.
- D. Exfiltration Testing:
  - 1. Plug and bulkhead the section of pipe to be tested at both ends and admit fluid until the pipe is full.
  - 2. Allow fluid to wet the pipe interior for the period indicated below before measuring leakage:
    - a. Concrete Pipe: 48 hours.
  - 3. Provide a minimum head of two feet above the crown of the pipe at the upstream end.
  - 4. Add fluid from a test container or from a metered supply as required to maintain the level within 3-inches of the minimum head throughout the test duration.
  - 5. Test duration shall not be less than two hours.
  - 6. Allowable Leakage Rates:
    - a. Leakage is defined as the quantity of fluid that must be supplied to the pipeline or any section thereof to maintain the head within 3-inches of the test elevation during the test duration after the pipe has been filled and exposed to the required wetting period plus the quantity required to refill to the original head.
    - b. Leakage shall not be greater than 200 gal/inch dia./mdc/24 hours.
- E. Vertical Deflection Test for Thermoplastic Pipe:
  - 1. The vertical deflection test shall be conducted after the final backfill has been in place at least 30 days.
  - 2. Contractor shall manually pull a pin-type vertical gauge mounted on a sled through the pipe. Gauge shall be set so that if vertical deflection of pipe exceeds five percent, it will stop. Contractor shall excavate and relay all such piping. Gage shall be as manufactured by Quality Test Products, or equal.

### 3.06 CLEANING AND DISINFECTION

- A. Clean all pipe systems and all other piping shall be cleaned as follows:
  - 1. Thoroughly clean all piping and flush in a manner approved by Engineer, prior to placing in service.
  - 2. Piping 24-inches in diameter and larger shall be inspected from inside and all debris, dirt and foreign matter removed.
  - 3. If piping which requires disinfection has not been kept clean during storage or installation, Contractor shall swab each section individually before installation with a five percent hypochlorite solution, to ensure clean piping.
- B. Disinfection:
  - 1. Disinfect all potable and finished water piping.
  - 2. A suggested procedure for accomplishing complete and satisfactory disinfection is specified below. Other procedures will be considered for approval by the Engineer.
    - a. Thoroughly flush piping prior to disinfection with water. For pipelines 24 inches in diameter and larger, pipelines shall be manually cleaned, carefully removing all sweepings, dirt and debris prior to disinfection.
    - b. Conform to procedures described in AWWA C651. Calcium hypochlorite tablets manufactured by Permatex shall be used as means of disinfection, unless alternative



method is acceptable to Engineer.

3. Water for initial flushing, testing and chlorination will be furnished by the Contractor. Contractor shall provide all temporary piping, hose, valves, appurtenances and services required.
4. Chlorine tablets will be supplied by Contractor.
5. Bacteriologic tests will be performed by Owner. A certified test laboratory report will be made available to Contractor, if requested.
6. Chlorine concentration in the water entering the piping shall be between 50 and 100 parts per million, such that a minimum residual concentration of 25 mg/l will be left after a 24-hour retention period. Care shall be taken to ensure disinfection of the piping in all its parts. The operation shall be repeated as necessary to provide complete disinfection.
7. After the required retention period, the heavily chlorinated water shall be flushed to drain, unless otherwise directed by the Engineer.

END OF SECTION

SECTION 33 11 13.13

DUCTILE IRON PUBLIC WATER UTILITY DISTRIBUTION PIPING

PART 1 GENERAL

1.01 DESCRIPTION

- A. Scope:
  - 1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish ductile iron pipe and fittings.
  - 2. Extent of piping is shown on the Drawings. Piping schedules included in Section 33 11 13 Public Water Utility Distribution Piping, specify pipe service, diameter, material, lining, coating, pressure rating, joint type, and testing required.
- B. Coordination:
  - 1. Review installation procedures under this and other Specification sections and coordinate installation of items that are to be installed with or before ductile iron pipe Work.
  - 2. Notify other contractors in advance of installation of ductile iron pipe to provide them with sufficient time to install items included in their contracts that must be installed with or before ductile iron pipe Work.

1.02 RELATED WORK

- A. Section 31 23 00, Excavation and Fill.
- B. Division 33, Applicable Sections on Piping, Valves and Appurtenances.

1.03 REFERENCES

- A. Standards referenced in this Section are listed below:
  - 1. ANSI B18.2.1, Square and Hex Bolts and Screws Inch Series.
  - 2. ANSI B18.2.2, Square and Hex Nuts. (Inch Series).
  - 3. ASTM A193, Alloy Steel and Stainless Steel Bolting Materials for High-Temperature Service.
  - 4. ASTM A194, Specification for Carbon Steel and Alloy Steel Nuts for Bolts for High-Pressure or High-Temperature Service, or Both.
  - 5. ASTM A307, Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
  - 6. ASTM A354, Specification for Quenched and Tempered Alloy Steel Bolts, Studs and Other Externally Threaded Fasteners.
  - 7. ASTM A563, Specification for Carbon and Alloy Steel Nuts.
  - 8. ASTM B117, Practice for Operating Salt Spray (Fog) Apparatus.
  - 9. ASTM C283, Test Methods for Resistance of Porcelain Enameled Utensils to Boiling Acid.
  - 10. ASTM D714, Test Method for Evaluating Degree of Blistering of Paints.
  - 11. ASTM D792, Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
  - 12. ASTM D5162, Discontinuity (Holiday) Testing of Non-Conductive Protective Coating on Metallic Substrates.
  - 13. ASTM E96, Test Methods for Water Vapor Transmission of Materials.
  - 14. ASTM G14, Test Method for Impact Resistance of Pipeline Coatings (Falling Weight Test).

15. ASTM G62, Test Methods for Holiday Detection in Pipeline Coatings.
16. ASTM G95, Test Methods for Cathodic Disbondment Test of Pipeline Coatings (Attached Cell Method).
17. ANSI/AWWA C104, Cement-Mortar Lining for Ductile Iron Pipe and Fittings for Water.
18. ANSI/AWWA C110, Ductile Iron and Gray-Iron Fittings, 3 in. – 48 in. for Water.
19. ANSI/AWWA C111, Rubber-Gasket Joints for Ductile Iron Pressure Pipe and Fittings.
20. ANSI/AWWA C115, Flanged Ductile Iron Pipe with Ductile Iron or Gray Iron Threaded Flanges.
21. ANSI/AWWA C116, Protective Fusion-Bonded Epoxy Coatings for the Interior and Exterior Surfaces of Ductile Iron and Gray Iron Fittings for Water Service.
22. ANSI/AWWA C151, Ductile Iron Pipe, Centrifugally Cast, for Water.
23. ANSI/AWWA C153, Ductile Iron Compact Fittings for Water Service.
24. ANSI/AWWA C606, Grooved and Shouldered Type Joints.
25. European Standard (EN), EN 598: Ductile Iron Pipe, Fittings, Accessories and Their Joints for Sewerage Applications.
26. Manufacturers Standardization Society of the Valves and Fittings Industry (MSS), MSS-SP 60, Connecting Flange Joint Between Tapping Sleeves and Tapping Valves.
27. NACE RP0188, Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates.
28. National Association of Pipe Fabricators, Inc. (NAPF), NAPF 500-03, Surface Preparation Standard for Ductile Iron Pipe and Fittings Receiving Special External Coatings and/or Special Internal Linings.
29. ANSI /NSF 61, Drinking Water System Components - Health Effects.
30. SSPC PA 2, Measurement of Dry Coating Thickness with Magnetic Gages.
31. SSPC Painting Manual, Volume 1, Para. XIV.

#### 1.04 QUALITY ASSURANCE

##### A. Manufacturer Qualifications:

1. Manufacturer shall have a minimum of five years successful experience producing ductile iron pipe and fittings and shall be able to show evidence of at least five installations in satisfactory operation in the United States that are similar applications to the specified service.
2. Lining and coating products shall be manufactured by a firm with a minimum of five years successful experience in protecting pipelines exposed to the specified service conditions , and shall be able to show evidence of at least five installations in satisfactory operation in the United States that are similar applications to the specified service.
3. When not applied by the manufacturer, lining and coating Subcontractor shall have a minimum of five years successful experience in the application of the specified linings and coatings for similar applications for the specified service, and shall be able to show evidence of at least five installations in satisfactory operation in the United States.

##### B. Supply and Compatibility:

1. Unless otherwise approved by Engineer, obtain all pipe, fittings, and appurtenances included in this Section from a single ductile iron pipe manufacturer.
2. Ductile iron pipe manufacturer shall review and approve or prepare all Shop Drawings and other submittals for all pipe, fittings, and appurtenances furnished under this Section.
3. All pipe, fittings, and appurtenances shall be suitable for the specified service and shall be integrated into the overall piping system by ductile iron pipe manufacturer.
4. Ductile iron pipe manufacturer shall be responsible for all products and all factory-applied linings and coatings, whether installed at pipe manufacturer's facility or at manufacturer's Subcontractor's facility.

## 1.05 SUBMITTALS

- A. Shop Drawings: Submit the following with Shop Drawings required under Section 33 11 13, Public Water Utility Distribution Piping:
  - 1. Detailed drawings and data for pipe, fittings, gaskets, appurtenances, linings, and coatings.
- B. Certificates:
  - 1. Submit a certificate signed by manufacturer of each product that product conforms to applicable referenced standards and the Contract Documents.
  - 2. Submit a certificate signed by the applicator of the linings and coatings stating that the product to be applied conforms to applicable referenced standards and that the applicator shall conform to the Contract Documents.

## 1.06 DELIVERY, STORAGE AND HANDLING

- A. Refer to Section 33 11 13, Public Water Utility Distribution Piping.
- B. Handling of Pipe and Fittings Lined with Ceramic Epoxy, Fusion Bonded Epoxy, or Glass: Lifting devices shall not come into contact with lined surfaces. Use hooks, forks, chains, straps, and other lifting devices only on exterior of pipe and fittings. Pipe and fittings with damaged lining shall be replaced regardless of cause of damage.
- C. Handling of Pipe and Fittings Coated with Fusion Bonded Epoxy: Hooks, forks, chains, straps, and other lifting devices shall be rubber-coated and be used only on exterior of pipe and fittings in such a manner to avoid damaging the coating. If coating becomes damaged, CONTRACTOR shall notify pipe and coating manufacturer to determine if repair of damaged area or re-coating is required. Perform repairs using recommended procedures and materials provided by manufacturer, as accepted by ENGINEER. Pipe and fittings requiring re-coating shall be removed from Site and returned to manufacturer's facility. Repaired or re-coated pipe and fittings shall meet all requirements of this Section.

## PART 2 PRODUCTS

### 2.01 MATERIALS

- A. General:
  - 1. All material shall be domestic, made in the United States of America
  - 2. Piping systems shall be suitable for their intended use.
  - 3. Joints shall be as specified in Section 33 11 13, Public Water Utility Distribution Piping. If not specified, provide flanged joints for exposed piping and push-on or mechanical joints for buried piping. Provide couplings on pipe with plain or grooved ends where shown or where approved by ENGINEER.
- B. Ductile Iron Pipe and Fittings:
  - 1. Flanged Pipe: Fabricate in accordance with ANSI/AWWA C115.
    - a. Pressure Class: As specified on drawings. If not otherwise specified use Class 52.
  - 2. Non-Flanged Pipe: Conform to ANSI/AWWA C151 for material, pressure, dimensions, tolerances, tests, markings, and other requirements.
    - a. Pressure Class: As specified on drawings. If not otherwise specified, use Class 52.
  - 3. Joints:

- a. Flanged Joints: Conform to ANSI/AWWA C110 and ANSI/AWWA C115 capable of meeting the special thickness class 52, and test pressure.
  - 1) Gaskets: Unless otherwise specified, gaskets shall be at least 1/8-inch thick, ring or full-face as required for the pipe, of a synthetic rubber compound containing not less than 50 percent by volume nitrile or neoprene, and shall be free from factice, reclaimed rubber, and other deleterious substances. Gaskets shall be suitable for the service conditions specified, specifically designed for use with ductile iron pipe and fittings.
    - i. Gasket Sealing Compounds: Provide high temperature resistant sealing compound (Loctite PST 592 or equivalent) with Dimethacrylate-ester base, and Teflon.
  - 2) Bolts: Conform to ANSIB18.2.1
    - i. Exposed: ASTM A 307, Grade B
    - ii. Buried or Submerged: ASTM A 193, Grade B8M, Class 2, Heavy hex, Type 316 stainless steel.
  - 3) Nuts: Conform to ANSI B18.2.2.
    - i. Exposed: ASTM A 563, Grade A, Heavy Hex.
    - ii. Buried or Submerged: ASTM A 194, Grade B8M. Heavy hex, Type 316 stainless steel.
- b. Mechanical Joints: Conform to ANSI/AWWA C110 and ANSI/AWWA C111, capable of meeting the pipe wall thickness noted on the drawings, and test pressure specified in Section 33 11 13 Public Water Utility Distribution Piping.
  - 1) Glands: Ductile Iron.
  - 2) Gaskets: Plain tip.
  - 3) Bolts and Nuts: High strength, low alloy steel.
  - 4) Manufacturers: Provide products of one of the following:
    - i. Clow Water Systems, a Division of McWane, Inc.
    - ii. American Cast Iron Pipe Co.
    - iii. U.S. Pipe and Foundry Co.
- c. Push-on Joints: Conform to ANSI/AWWA C111, capable of meeting the pipe wall thickness noted on the drawings, and test pressure specified in Section 33 11 13 Public Water Utility Distribution Piping.
  - 1) Gaskets: Molded rubber.
  - 2) Stripes: Each plain end shall be painted with a circular stripe to provide a guide for visual check that joint is properly assembled.
  - 3) Products and Manufacturers: Provide products of one of the following:
    - i. Tyton or Fastite Joint by Clow Water Systems, a Division of McWane, Inc.
    - ii. Fastite Joint by American Cast Iron Pipe Co.
    - iii. Tyton Joint by U.S. Pipe and Foundry Co.
- d. Grooved End Joints: Conform to ANSI/AWWA C606.
  - 1) Gaskets: Flush seal type designed for ductile iron.
  - 2) Bolts and nuts: As specified for flanged joints.
  - 3) Unless otherwise specified, grooved end couplings shall be rigid joint for exposed service and flexible joint for buried service.
  - 4) Products and Manufacturers: Provide products of one of the following:
    - i. Victaulic, Style 31.
    - ii. Or equal.
- e. Restrained Joints: Restrained push-on joints shall be capable of being deflected after full assembly. Field cuts of restrained pipe are not allowed without approval of ENGINEER.
  - 1) Products and Manufacturers: Provide restrained joints for mechanical joint piping by one of the following:
    - i. Megalug, Series 1100, manufactured by EBAA Iron Sales, Inc.

- 2) Products and Manufacturers: Provide restrained joints for push-on joint piping by one of the following:
    - i. Super-Lock Joint Pipe, manufactured by Clow Water Systems, a division of McWane, Inc.
    - ii. Lok-Ring Joint, or Flex-Ring Joint, manufactured by American Cast-Iron Pipe Company.
    - iii. TR Flex Joint, manufactured by U.S. Pipe and Foundry Co. d) Series 1700 D.I. Restrained Harness manufactured by EBAA Iron.
    - iv. All mechanical restraint devices shall be coated with a fully bonded coating system on castings and wedge assemblies.
  4. Flanged Fittings: Conform to ANSI/AWWA C110 or ANSI/AWWA C153.
    - a. Pressure Rating: As specified above for flanged joints.
    - b. Material: Ductile iron.
    - c. Gaskets: As specified above for flanged joints.
    - d. Bolts and Nuts: As specified above for flanged joints.
  5. Mechanical Joint Fittings: Conform to ANSI/AWWA C110 or ANSI/AWWA C153.
    - a. Pressure Rating: As specified above for mechanical joints.
    - b. Material: Ductile iron.
    - c. Glands: Ductile iron.
    - d. Gaskets: As specified above for mechanical joints.
    - e. Bolts and Nuts: As specified above for mechanical joints.
- C. General Requirements for Lining:
1. Surface Preparation:
    - a. Initial Surface Inspection: Surface to be lined shall be inspected by pipe and fitting manufacturer and applicator, if applicator is other than pipe and fitting manufacturer. The inspecting parties shall inspect the surface to be coated and mutually determine the recommended surface preparation method.
    - b. Surface Preparation: Prepare surface in accordance with the recommended method.
    - c. Finished Surface Inspection: Lining applicator shall inspect finished surface prior to application to determine acceptability. If surface is unacceptable, surface preparation shall be repeated as necessary.
- D. Cement-mortar Lining:
1. Where specified in piping schedules included with Section 33 11 13 Public Water Utility Distribution Piping, pipe and fittings shall be lined with a bituminous seal coated cement-mortar lining in accordance with ANSI/AWWA C104.
- E. Specials:
1. Transition Pieces:
    - a. Furnish suitable transition pieces (adapters) for connecting to existing piping.
    - b. Unless otherwise shown or specified, expose existing piping to determine material, dimensions, and other data required for transition pieces.
  2. Taps:
    - a. Provide taps where shown or required for small-diameter pipe connections.
    - b. Provide corporation stops where shown or required.
    - c. Where pipe wall thickness or tap diameter will not permit the engagement of the required minimum number of full threads, provide a tapping saddle with outlet joints conforming to requirements of Paragraph 2.1.B.3.a for 4-inch through 12-inch diameter pipe, and Paragraph 2.1.B.3.b. for 14-inch through 54-inch diameter pipe.

2.02 MARKING FOR IDENTIFICATION

- A. In addition to identification markings specified in Section 33 11 13, Public Water Utility Distribution Piping, also stamp, mark, and identify pipe materials with:
  - 1. Name or trademark of manufacturer.
  - 2. Size and length dimensions.
  - 3. Date and place of manufacture, including country.
  - 4. Pipe Class

## 2.02 EXTERIOR SURFACE PREPARATION AND COATINGS

- A. General Coating Requirements:
  - 1. Coating types are specified in section 33 11 13, Public Water Utility Distribution Piping.
- B. Buried Pipe and Fittings:
  - 1. Asphaltic Coating: Coat pipe and fittings with an asphaltic coating approximately one mil thick, in accordance with ANSI/AWWA C151, ANSI/AWWA C115, ANSI/AWWA C110, and ANSI/AWWA C153, as applicable.
  - 2. Fusion Bonded Epoxy Coating for Fittings:
    - a. Fittings shall be factory coated with 100 percent solids, thermosetting, dry powder epoxy, in conformance with ANSI/AWWA C116.
    - b. Apply coating utilizing a method, recommended by manufacturer, that meets requirements of this Section, with a finished dry film thickness of at least six mils, with exception of joint areas, which shall receive at least a four-mil dry film thickness coating. Heat and cure the fittings per coating manufacturer's recommendations.
    - c. Shop Testing: Cut a test coupon from a coated fitting no less than six inches in diameter, and approximately 4 inches in length, and split coupon lengthwise into two equal sections. Surface preparation, application procedure, thickness, and curing parameters shall be the same or the test coupon as for Project fittings. Perform the following tests on test coupon:
      - 1) Scribe coating material through to bare surface of fitting with an "X" across full length of test coupon. Immerse coupon for 500 hours in 150-degree F bath of distilled water. Coating shall show no signs of disbondment or blistering.
      - 2) Test coupon shall be impact tested using ASTM G14 test method with a 20 in.-lbf impact applied near center of convex section of test coupon. Coating shall show no signs of cracking or disbondment.
    - d. Manufacturer's Inspection and Certification:
      - 1) All coated fittings shall be visually inspected by manufacturer and show no sign of blisters, cracks, or lack of coverage.
      - 2) Check all coated fittings for coating thickness using a magnetic film thickness gage utilizing method outlined in SSPC PA 2 Film Thickness Rating.
      - 3) Holiday-test all coated fittings in accordance with ASTM D5162, NACE RP0188, and SSPC Painting Manual Vol. 1, Para. XIV, with a low voltage, wet sponge holiday detector. Repair methods and materials for holidays shall be as recommended by coating manufacturer and made prior to shipment to the Site.
    - e. Products and Manufacturers: Provide products of one of the following:
      - 1) Pipeclad 1500, by Valspar Corporation.
      - 2) Or equal.

## PART 3 EXECUTION

### 3.01 INSPECTION

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- A. Inspect piping to assure that piping is free from defects in material and workmanship. Verify compatibility of all pipe, fittings, gaskets, linings, and coatings.

3.02 INSTALLATION AND FIELD QUALITY CONTROL

- A. For buried piping installation and testing, refer to Section 33 11 13, Public Water Utility Distribution Piping.

END OF SECTION



WATER UTILITY DISTRIBUTION EQUIPMENT

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and install complete and ready for operation and test all non-buried valves, hydrants and appurtenances as shown on the Drawings and as specified herein.
- B. The equipment shall include, but not be limited to, the following. However all items specified herein may not be included in this project.
  - 1. Valve Actuators - General
  - 2. Gate Valves
  - 3. Resilient Seated Gate Valves
  - 4. Air Release Valves
  - 5. Hydrants

1.02 RELATED WORK

- A. Section 31 23 00, Excavation and Fill.
- B. Piping and disinfection for potable water systems is included in the respective Sections of Divisions 33.

1.03 SUBMITTALS

- A. Submit to the ENGINEER, in accordance with Section 01 33 00, materials required to establish compliance with this Section. Submittals shall include at least the following:
  - 1. Certified drawings showing all important details of construction and dimensions.
  - 2. Descriptive literature, bulletins and/or catalogs of the equipment.
  - 3. The total weight of each item.
  - 4. A complete bill of materials.
  - 5. Additional submittal data, where noted with individual pieces of equipment.
- B. Test Reports
  - 1. Provide certified hydrostatic test data, per manufacturer's standard procedure or MSS-SP-61 for all valves.
- C. Certificates
  - 1. For each valve specified to be manufactured, tested and/or installed in accordance with AWWA and other standards, submit an affidavit of compliance with the appropriate standards, including certified results of required tests and certification of proper installation.
- D. Manufacturer's Installation and Application Data
- E. Operating and Maintenance Data
  - 1. Operating and maintenance instructions shall be furnished to the ENGINEER. The instructions shall be prepared specifically for this installation and shall include all required cuts, drawings, equipment lists, descriptions and other information required to instruct operating and maintenance personnel unfamiliar with such equipment.

1.04 REFERENCE STANDARDS

- A. American Society for Testing and Materials (ASTM)

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1. ASTM A48 - Standard Specification for Gray Iron Castings.
2. ASTM A126 - Standard Specification for Gray Iron Castings for Valves, Flanges and Pipe Fittings.
3. ASTM A159 - Standard Specification for Automotive Gray Iron Castings.
4. ASTM A240 - Standard Specification for Heat-Resisting Chromium and Chromium-Nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels.
5. ASTM A276 - Standard Specification for Stainless Steel Bars and Shapes.
6. ASTM A436 - Standard Specification for Austenitic Gray Iron Castings.
7. ASTM A536 - Standard Specification for Ductile Iron Castings.
8. ASTM B30 - Standard Specification for Copper-Base Alloys in Ingot Form.
9. ASTM B62 - Standard Specification for Composition Bronze or Ounce Metal Castings

B. American Water Works Association (AWWA)

1. AWWA C111 - Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
2. AWWA C500 - Metal-Seated Gate Valves Supply Service
3. AWWA C502 - Dry-Barrel Fire Hydrants.
4. AWWA C504 – Rubber Seated Butterfly Valves.
5. AWWA C507 - Ball Valves, 6-in Through 48-in (150mm Through 1200mm)
6. AWWA C508 - Swing-Check Valves for Waterworks Service, 2-in (50mm Through 24-in (600mm) NPS
7. AWWA C509 - Resilient-Seated Gate Valves for Water Supply Service
8. AWWA C511 - Reduced-Pressure Principle Backflow-Prevention Assembly
9. AWWA C540 - Power-Actuating Devices for Valves and Sluice Gates
10. AWWA C550 - Protective Epoxy Interior Coatings for Valves and Hydrants
11. AWWA C800 - Underground Service Line Valves and Fittings

C. American National Standards Institute (ANSI)

1. ANSI B2.1 - Specifications, Dimensions, Gauging for Taper and Straight Pipe Threads (except dry seals).
2. ANSI B16.1 - Cast Iron Pipe Flanges and Flanged Fittings
3. ANSI B16.10 - Face-to-Face and End-to-End Dimensions of Valves

D. American Iron and Steel Institute (AISI)

E. Manufacturer's Standardization Society of the Valve and Fittings Industry (MSS)

1. MSS-SP-61 - Pressure Testing of Steel Valves.
2. MSS-SP-70 - Cast Iron Gate Valves, Flanged and Threaded Ends.
3. MSS-SP-71 - Cast Iron Swing Check Valves, Flanges and Threaded Ends.
4. MSS-SP-72 - Ball Valves with Flanged or Butt-Welding Ends for General Services.
5. MSS-SP-78 - Cast Iron Plug Valves, Flanged and Threaded Ends.
6. MSS-SP-80 - Bronze Gate, Globe, Angle and Check Valves.
7. MSS-SP-82 - Valve Pressure Testing Methods
8. MSS-SP-98 - Protective Coatings for the Interior of Valves, Hydrants and Fittings.

F. National Electrical Manufacturers Association (NEMA)

G. Underwriters Laboratories (UL)

H. Factory Mutual (FM)

- I. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.05 QUALITY ASSURANCE

A. Qualifications

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1. Valves, hydrants and appurtenances shall be products of well established firms who are fully experienced, minimum 10 years, reputable and qualified in the manufacture of the particular equipment to be furnished.
2. The equipment shall be designed, constructed and installed in accordance with the best practices and methods and shall comply with this Section as applicable.
3. All units of the same type shall be the product of one manufacturer.

B. Certifications

1. The manufacturers shall furnish an affidavit of compliance with Standards referred to herein as specified in Paragraph 1.03C above. Refer to PART 3 for testing required for certain items in addition to that required by referenced standards.

C. Provide the services of a qualified and factory-trained service representative of the manufacturer to provide operational and maintenance instruction, for a 1 day, 8 hour period for:

1. Valve motor operators.

D. Inspection of the units may also be made by the ENGINEER or other representative of the OWNER after delivery. The equipment shall be subject to rejection at any time due to failure to meet any of the specified requirements, even though submittal data may have been accepted previously. Equipment rejected after delivery shall be marked for identification and shall be removed from the job site at once.

## 1.06 SYSTEM DESCRIPTION

A. All of the equipment and materials specified herein is intended to be standard for use in controlling the flow of wastewater, air, raw, and finished water as noted on the Drawings.

B. Valves, appurtenances and miscellaneous items shall be installed as shown on the Drawings and as specified, so as to form complete workable systems.

C. Unless otherwise noted all powered valve operators shall have:

1. Valves larger than 3-in: electric operators 460 Volt, 3 Phase, 60 Hz.
2. Solenoid valves: 120 volt, single phase, 60 Hz, NEMA 4 enclosure, continuous duty Class F coils and manual operator.

## 1.07 DELIVERY, STORAGE AND HANDLING

A. Packing and Shipping

1. Care shall be taken in loading, transporting and unloading to prevent injury to the valves, appurtenances, or coatings. Equipment shall not be dropped. All valves and appurtenances shall be examined before installation and no piece shall be installed which is found to be defective. Any damage to the coatings shall be repaired as acceptable to the ENGINEER.
2. Prior to shipping, the ends of all valves shall be acceptably covered to prevent entry of foreign material. Covers shall remain in place until after installation and connecting piping is completed.
  - a. All valves 3-in and larger shall be shipped and stored on site until time of use with wood or plywood covers on each valve end.
  - b. Valves smaller than 3-in shall be shipped and stored as above except that heavy cardboard covers may be used on the openings.
  - c. Rising stems and exposed stem valves shall be coated with a protective oil film which shall be maintained until the valve is installed and put into use.
  - d. Any corrosion in evidence at the time of acceptance by the OWNER shall be removed, or the valve shall be removed and replaced.

C. Storage and Protection

1. Special care shall be taken to prevent plastic and similar brittle items from being directly exposed to the sun, or exposed to extremes in temperature, to prevent deformation. See the individual piping sections and manufacturer's information for further requirements.

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## 1.08 MAINTENANCE

- A. Special tools and the manufacturer's standard spare parts, if required for normal operation and maintenance, shall be supplied with the equipment in accordance with Section 01730 and where noted, as specified herein.
- B. Provide all special tools required for normal maintenance. Tools shall be packaged in a steel case, clearly and indelibly marked on the exterior to indicate equipment for which tools are intended.
- C. Provide to the OWNER a list of all spare and replacement parts with individual prices and location where they are available. Prices shall remain in effect for a period of not less than 1 year after start-up and final acceptance.

## PART 2 PRODUCTS

### 2.01 MATERIALS AND EQUIPMENT - GENERAL

- A. All material shall be domestic, made in the United States of America.
- B. Reference is made to Division 1 for additional requirements, including nameplates, provisions for temporary pressure gauges, protection against electrolysis and anchor bolts.
- C. The use of a manufacturer's name and/or model or catalog number is for the purpose of establishing the standard of quality and general configuration desired.
- D. Valves, hydrants and appurtenances shall be of the size shown on the Drawings or as noted and as far as possible equipment of the same type shall be identical and from one manufacturer.
- E. Valves, hydrants and appurtenances shall have the name of the maker, nominal size, flow directional arrows, working pressure for which they are designed and standard referenced, cast in raised letters or indelibly marked upon some appropriate part of the body.
- F. Unless otherwise noted, items shall have a minimum working pressure of 250 psi or be of the same working pressure as the pipe they connect to, whichever is higher and suitable for the pressures noted where they are installed.
- G. Joints, size and material - unless otherwise noted or required by the ENGINEER:
  - 1. Except where noted, all joints referred to herein shall be of the same type, nominal diameter, material and with a minimum rating equal to the pipe or fittings they are connected to.
  - 2. Valves and appurtenances shall be of the same nominal diameter as the pipe or fittings they are connected to.
  - 3. All valves exposed to view, or in vaults.
    - a. 3-in and smaller - threaded ends
    - b. 4-in and larger flanged ends.
- H. Provide all special adaptors as required to ensure compatibility between valves, appurtenances and adjacent pipe.
- I. Valves and actuators located outdoors but not within a building; within maximum 2-ft above liquid; in vaults; or where otherwise noted shall be especially designed for submerged service where water may completely submerge the valve and operator. All other units shall be as a minimum weather tight.

### 2.02 VALVE ACTUATORS - GENERAL

- A. See the Paragraph 2.01I above for submergence requirements.

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- B. The valve manufacturer shall supply and integrally, rigidly mount all actuators, including any type of manual or powered actuators, on valves at the factory. The valves and their individual actuators shall be shipped as a unit.
- C. Unless otherwise noted, valves shall be manually actuated; non-buried valves shall have an operating wheel, handle or lever mounted on the operator
- D. All actuators shall be capable of moving the valve from the full open to full close position and in reverse and holding the valve at any position part way between full open or closed.
- E. Each operating device shall have cast on it the word "OPEN" and an arrow indicating the direction of operation.
- F. Floor boxes for operating nuts recessed in concrete shall be standard cast iron type, cast-in-place, with fastening top by Clow or equal.
- G. Gear Actuators
  - 1. Unless otherwise noted, gear actuators shall be provided for the following: all valves of larger than 8-in nominal diameter; where specified and/or indicated on the Drawings; where manual operator effort is greater than 80 ft-lbs rim pull.
  - 2. Gear actuators shall be of the worm or helical gear type with output shaft perpendicular to valve shaft, having a removable hand wheel mounted on the output shaft. Unless noted they shall conform to AWWA C504, but except with butterfly valves, need not be certified.
  - 3. Actuators shall be capable of being removed from the valve without dismantling the valve or removing the valve from the line.
  - 4. Gearing shall be machine-cut steel designed for smooth operation. Bearings shall be permanently lubricated, with bronze bearing bushings provided to take all thrusts and seals and to contain lubricants. Housings shall be sealed to exclude moisture and dirt, allow the reduction mechanisms to operate in lubricant and be of the same material as the valve body.
  - 5. Manual operator input effort to the handwheel shall be a maximum of 40 ft-lbs for operating the valve from full open to full close, under any conditions. Gear actuators shall indicate valve position and have adjustable stops. Maximum handwheel size shall be 24-in diameter.
- H. Not Used.
- I. All position indication and direction of opening arrows shall be embossed, stamped, engraved, etched or raised decals.
- J. Unless otherwise noted, all valves larger than 3-in nominal diameter shall be provided with position indicators at the point of operation.

## 2.03 GATE VALVES (3-IN AND LARGER)

- A. General Requirements
  - 1. Unless otherwise specified below, these requirements shall apply to all gate valves.
  - 2. Gate valves shall meet the requirements of AWWA C500, AWWA C509, AWWA C515 as applicable to the type of valve specified.
  - 3. Submerged valves shall be furnished with mechanical joints and stainless steel hardware; non-rising stem design.
  - 4. Exposed valves shall be furnished with Class 125 flanged ends; provide valves with outside screw and yoke.
  - 5. All-metal valves shall be manufactured of ASTM A126 Cast Iron, Class B, with bronze mounting design.
  - 6. Rising stem valves shall be sealed with adjustable and replaceable packing; valve design must permit packing replacement under operating system pressures with only moderate leakage.
  - 7. Non-rising stem valves shall use a double O-ring stem seal, except that packing shall be used where geared operators are required.
  - 8. Except as otherwise specified, valves shall be rated for the following working water pressures:

<u>Valve Size</u>	<u>Pressure (psig)</u>
3-in to 12-in	250
14-in to 20-in	250
24-in and greater	250

- a. All valve bodies shall be hydrostatically tested to at least twice the rated working water pressure. In addition, valves shall be seat-tested, bi-directional at the rated working pressure, with seat leakage not to exceed one fluid ounce per inch of valve diameter per hour. Provide certificates of testing.
  9. Flanged valves to have face-to-face dimensions per ANSI B16.10 and flanges per ANSI B16.1.
  10. All bonnet and packing gland bolts shall be zinc or cadmium electroplated steel; packing gland bolts shall have bronze nuts.
  11. Provide geared operator and chainwheel, chain and chain guides for valves with handwheel centerline more than 7-ft above operating level.
  12. All valves shall be marked per AWWA Standards, including name of manufacturer, valve size and working pressure and year of manufacture.
  13. Unless otherwise indicated, valves shall be installed in the horizontal position, and seal at the rated pressure.
  14. Valve operation shall be counterclockwise for potable water; clockwise for wastewater and other non-potable waters. Provide permanent label showing "OPEN" and arrows.
  15. Metal-seated valves shall be coated internally and externally with an asphaltic varnish, per AWWA C500. Resilient seated valves shall be coated, interior and exterior, with fusion bonded epoxy per AWWA C550.
- B. Valve Applications
1. Valves for Potable Water Service.
    - a. Double disc design manufactured by American-Darling Valve; Mueller Valve; or equal.
    - b. Double revolving disc manufactured by American-Darling Valve.
  2. At the CONTRACTOR's option and unless otherwise indicated, any of the listed valve styles may be used, at no additional cost to the OWNER.
- C. Valve Requirements
1. Solid Wedge
    - a. Conform to AWWA C500.
    - b. Tongue and grooved guides for wedges.
  2. Resilient Seated
    - a. Conform to AWWA C509. Also UL and FM approved.
    - b. Internal and external epoxy coating of valve body, including bonnet, per AWWA C550.
    - c. Gate shall be encapsulated with synthetic rubber. It shall be bonded and vulcanized in accordance with ASTM B429 Method B.
    - d. No recesses in valve body.
- D. Tapping Valves and Sleeves
1. Tapping valves shall comply with the same requirements as solid wedge or double disc gate valves except they shall have the flanged end and port opening modified for tapping service. Valves shall be capable of passing a full nominal sized cutter without damage to the valve. The tapping sleeve shall be gray cast iron or ductile iron mechanical joint type with the outlet flange conforming to MSS-SP-60.
  2. All water valves, 4-in and larger, shall be iron body gates, bronze trim, flanged ends, O.S.&Y. pattern, solid wedge, rising spindle, Jenkins No. 651, or Hammond 1R-1140.

## 2.04 AIR RELEASE VALVES

- A. As shown on drawings and details.

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## 2.05 HYDRANTS

- A. Type: Compression/Post-type dry barrel.
- B. Construction:
  - 1. Cast iron body.
  - 2. Bronze Mounted.
  - 3. Working Pressure: 250 psi in accordance with AWWA C502.
  - 4. Test Pressure: 400 psi in accordance with AWWA C502.
- C. Connections/Features:
  - 1. Main Valve:
    - a. Seat: Rubber.
    - b. Opening: 5-1/4 inches.
  - 2. Pumper Connections:
    - a. Number: One NST, with 5" Stortz fitting and chained cap.
    - b. Diameter: 4-1/2 inches.
  - 3. Hose Connection:
    - a. Number: Two with chained caps.
    - b. Diameter: 2-1/2 inches.
  - 4. Thread Type: National Standard
  - 5. Nozzles: Bronze with "O"-ring type seals. Lead caulking will not be allowed.
  - 6. Inlet:
    - a. Type: Mechanical Joint
    - b. Size: 6 inches.
- D. Miscellaneous Features:
  - 1. Chained caps and operating nut shall be square, tapered from 7/8 inches at the top to one-inch at the bottom and shall turn to the left to open.
  - 2. Provide barrel extension sections with stem extensions as required to set hydrant at grade level.
  - 3. Provide ground (grade) line breakable component to protect the hydrant barrel from impact.
  - 4. Provide cast iron safety stem coupling to keep the main valve closed if barrel and stem are damaged or separated from the hydrant.
  - 5. Depth of Bury (Grade to top of inlet pipe): 5.5 feet (minimum).
  - 6. Lubricant: USEPA approved food-grade grease. Oil will not be allowed.
  - 7. Main stem and valve assembly shall be removable from top of hydrant for maintenance of valve seat.
  - 8. Provide drain openings (minimum 3/8 inch diameter) to drain barrel standpipe completely when main valve is closed. Drain openings shall close completely with no leakage when main valve is opened.
- E. Paint:
  - 1. Use manufacturer's standard paint system.
  - 2. Color:
    - a. Body: Red
    - b. Bonnet: Red
- F. Product and Manufacturer:
  - 1. Mueller Super Centurion A-423; American Darling B62B; or Clow Medallion.

## 2.06 GATE VALVES FOR HYDRANTS; 6-INCH VALVE

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- A. All gate valves shall conform to AWWA standard C509.
- B. Gate valves shall be installed in each hydrant installation between the hydrant and main line in accordance with the Warren County Standard Details W-8, W-9, and W-9A.
- C. Valves shall be iron body, bronze mounted with modified wedge disc, resilient seat.
- D. O-ring seals and non-rising stems to withstand working pressure of 250 psi and test pressure of 400 psi.
- E. The valves shall be equipped with mechanical joint ends and be provided with all required bolts, glands, and rubber gaskets. Provide grooved or shouldered.
- F. A valve box with cover shall be provided for each buried valve.
- G. Product and Manufacturer:
  - 1. Clow; Dresser; and American Darling.

## 2.07 TAPPING SLEEVE AND VALVE

- A. Tapping Valve:
  - 1. Valve shall be cast iron body, bronze mounted, double disc, non-rising stem, parallel seat gate valve.
  - 2. Valve shall have "O" ring seals and shall conform to the requirements of AWWA C-500.
  - 3. The valve shall be designed for a test pressure of 200 psi.
  - 4. The tapping valve shall be provided with extra heavy ends designed for tapping services. The flange on the sleeve end of the valve shall be drilled and faced to insure proper alignment with the saddle.
  - 5. The other end connection shall be mechanical joint and suitable for bolting to the tapping machine.
  - 6. Tapping sleeve shall be ductile iron, mechanical joint with a class 125 pound outlet flange.
  - 7. Product and Manufacturer:
    - a. American Darling.
    - b. U.S. Pipe.
    - c. American Flow Control.
    - d. Or equal.
- B. A valve box with cover shall be provided for each buried valve.

## 2.08 SERVICE VALVES

- A. Corporation Stops:
  - 1. Provide ball type corporation stops conforming to AWWA Standard C800 and of all bronze construction.
  - 2. Corporation stop diameter shall be a minimum 3/4-inch up to 2-inch as required or shown on the Warren County Standard Detail W-10.
  - 3. Threaded tap end of stop shall have AWWA (Mueller) standard taper threads with the service line connection end for flared fitting copper tubing.
  - 4. Acceptable Manufacturer:
    - a. Ford Co. Model F-1000 or FB-1000.

## 2.09 WATER METERS AND PITS



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- A. Comply with the Warren County Water and Sewer Standard Details W-10 through W-15C.

## 2.10 SURFACE PREPARATION AND SHOP COATINGS

- A. Notwithstanding any of the specified requirements, all coatings and lubricants in contact with potable water shall be certified as acceptable for use with that fluid.
- B. If the manufacturer's requirement is not to require finished coating on any interior surfaces, then manufacturer shall so state and no interior finish coating will be required, if acceptable to the ENGINEER.
- C. The exterior surface of various parts of valves, operators, floor-stands and miscellaneous piping shall be thoroughly cleaned of all scale, dirt, grease or other foreign matter and thereafter one shop coat of an approved rust-inhibitive primer shall be applied in accordance with the instructions of the paint manufacturer or other primer compatible with the finish coat provided.
- D. Unless otherwise noted, interior ferrous surfaces of all valves shall be given a shop finish of an asphalt varnish conforming to AWWA C509, (except mounting faces/surfaces) or epoxy AWWA C550 with a minimum thickness of 4 mil.
- E. Ferrous surfaces obviously not to be painted shall be given a shop coat of grease or other suitable rust-resistant coating. Mounting surfaces shall be especially coated with a rust preventative.
- F. Special care shall be taken to protect uncoated items and plastic items, especially from environmental damage.

## 2.11 FACTORY INSPECTION, TESTING AND CORRECTION OF DEFICIENCIES

- A. Factory inspection, testing and correction of deficiencies shall be done in accordance with the referenced standards and as noted herein.
- B. See Division 1 for additional requirements. Also refer to PART 1, especially for required submission of test data to the ENGINEER.
- C. In addition to all tests required by the referenced standards, the following shall also be factory tested:
  - 1. All types of air and vacuum valves.

## PART 3 EXECUTION

### 3.01 INSTALLATION - GENERAL

- A. All valves, hydrants and appurtenances shall be installed per the manufacturer's instructions in the locations shown, true to alignment and rigidly supported. Any damage to the above items shall be repaired to the satisfaction of the ENGINEER before they are installed.
- B. Install all brackets, extension rods, guides, the various types of operators and appurtenances as shown on the Drawings, or otherwise required. Before setting these items, check all Drawings and figures which have a direct bearing on their location. The CONTRACTOR shall be responsible for the proper location of valves and appurtenances during the construction of the work.
- C. All materials shall be carefully inspected for defects in construction and materials. All debris and foreign material shall be cleaned out of openings, etc. All valve flange covers shall remain in place until connected piping is in place. All operating mechanisms shall be operated to check their proper functioning and all nuts and bolts checked for tightness. Valves and other equipment

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which do not operate easily, or are otherwise defective, shall be repaired or replaced at no additional cost to the OWNER.

- D. Where installation is covered by a referenced standard, installation shall be in accordance with that standard, except as herein modified, and the CONTRACTOR shall certify such. Also note additional requirements in other parts of this Section.
- E. Unless otherwise noted, joints for valves and appurtenances shall be made up utilizing the same procedures as specified under the applicable type connecting pipe joint and all valves and other items shall be installed in the proper position as recommended by the manufacturer. CONTRACTOR shall be responsible for verifying manufacturers' torquing requirements for all valves.

### 3.02 INSTALLATION OF VALVE BOXES

- A. Valve boxes shall be set plumb, and centered with the bodies directly over the operating nuts. The valve box shall be set so traffic loads are not transmitted to the valve. Any valve box set too high or too low shall be adjusted at the CONTRACTOR's expense.

### 3.03 INSTALLATION OF FIRE HYDRANTS

- A. Hydrants shall be set on a solid concrete block unit 1'6" x 8" x 1'-4" and backfill with No. 57 gravel.
- B. Concrete blocks shall be set at the back and both sides of the hydrant to hold it solid and in vertical position.
- C. The hydrant shall be set with the center of the lowest nozzle at least 15-inches, but not more than 18-inches above finished grade and/or as approved by the ENGINEER. The pumper nozzle shall be oriented normal to the edge of pavement.
- D. The hydrant shall be harnessed to the gate valve and the gate valve shall be harnessed to the main line by using suitable tie anchor pipe and fittings to suit the installation as shown on the drawings and Standard Detail W-8. The gate valves required for hydrants shall be in accordance with Paragraph 2.10.

### 3.04 INSTALLATION OF MANUAL OPERATIONAL DEVICES

- A. Unless otherwise noted, all operational devices shall be installed with the units of the factory, as shown on the Drawings or as acceptable to the ENGINEER to allow accessibility to operate and maintain the item and to prevent interference with other piping, valves and appurtenances.
- B. For manually operated valves 3-in in diameter and smaller, valve operators and indicators shall be rotated to display toward normal operation locations.
- C. Floor boxes, valve boxes, extension stems and low floor stands shall be installed vertically centered over the operating nut, with couplings as required and the elevation of the box top shall be adjusted to conform with the elevation of the finished floor surface or grade at the completion of the Contract. Boxes and stem guides shall be adequately supported during concrete pouring to maintain vertical alignment.

### 3.05 INSPECTION, TESTING AND CORRECTION OF DEFICIENCIES

- A. See also Division 1. Take care not to over pressure valves or appurtenances during pipe testing. If any unit proves to be defective, it shall be replaced or repaired to the satisfaction of the ENGINEER.
- B. Functional Test: Prior to plant startup, all items shall be inspected for proper alignment, quiet operation, proper connection and satisfactory performance. All units shall be operated

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continuously while connected to the attached piping for at least one hour, without vibration, jamming, leakage, or overheating and perform the specified function.

- C. The various pipelines in which the valves and appurtenances are to be installed are specified to be field tested. During these tests any defective valve or appurtenance shall be adjusted, removed and replaced, or otherwise made acceptable to the ENGINEER.
- D. Various regulating valves, strainers, or other appurtenances shall be tested to demonstrate their conformance with the specified operational capabilities and any deficiencies shall be corrected or the device replaced or otherwise made acceptable to the ENGINEER.

### 3.06 CLEANING

- A. All items (including valve interiors) shall be cleaned prior to installation, testing disinfection and final acceptance.

### 3.07 DISINFECTION

- A. Disinfection of valves and appurtenances on all potable water lines and where otherwise noted, shall be as noted in Paragraph 1.02B above.

END OF SECTION

**ADVERTISEMENT FOR BIDS**

Sealed bids will be received by the Clerk of the County Commissioners, Warren County, Ohio, 406 Justice Drive, Lebanon, Ohio 45036, until 11:00 a.m., April 28, 2022, and then at said time bids will be opened and read aloud for the Columbia Road Water Main Improvements – Phase 2 Project.

Bid documents and specifications are available online on the Warren County website at <http://www.co.warren.oh.us/commissioners/Bids/Default.aspx>. Questions regarding the technical specifications should be directed to Chris Wojnicz, Project Deputy Sanitary Engineer, at the Warren County Water and Sewer Department, at (513) 695-1646. Each bid shall contain the full name of each person or company submitting the bid and be accompanied by a bid bond for the full amount of the bid or a certified check in the amount equal to ten (10) percent of the bid.

The project generally consists of installation of approximately 1,150 feet of 24” ductile iron water main on Columbia Road. The estimated contract value is \$900,000.

Contact the Warren County Commissioner’s Office at (513) 695-1250 should you need assistance in accessing the bidding information on the County’s website. All contract addenda will be posted to the website prior to the bid opening. Bidders should check the website regularly to stay updated on any changes to the project.

**Please be aware that if you are downloading this document to bid this project, and in order to stay updated on any change, please email Krystal Powell in the Commissioners’ Office at [krystal.powell@co.warren.oh.us](mailto:krystal.powell@co.warren.oh.us) with your contact information.**

The Board of Warren County Commissioners reserve the right to accept the lowest and best bid, to reject all bids, and to waive any irregularities in bids.

By order of the Board of County Commissioners, Warren County, Ohio.

\_\_\_\_\_  
Tina Osborne, Clerk

\* \* \* \* \*

**The Pulse Journal:**

Please publish the above advertisement one (1) time, the week of April 3, 2022.

**Bill to Warren County Commissioners**